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WAR DEPARTMENT, - - - ADJUTANT GENERAL'S OFFICE.

No. XXXIII.

(72)

REPORTS ON MILITARY OPERATIONS

IN

SOUTH AFRICA AND CHINA.

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ADJUTANT GENERAL'S OFFICE,

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NOTE.

As the reports of officers cover, as a rule, only what they themselves saw, summaries of events in South Africa and China have been prepared in the Military Information Division of the Adjutant General's Office to accompany and supplement the reports.

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EXTRACTS

FROM THE

REPORTS OF CAPTAIN S. L'H. SLOCUM,
EIGHTH CAVALRY,

ON THE

OPERATIONS OF THE BRITISH ARMY.

EXTRACTS FROM REPORTS OF CAPT. S. L'H. SLOCUM.

REPORT No. 1.

PIETERMARITZBURG, NATAL, SOUTH AFRICA,
December 25, 1899.

ADJUTANT GENERAL, UNITED STATES ARMY,
Washington, D. C.

SIR: I have the honor to report that I and the other foreign military attachés arrived at Cape Town on November 28. The other attachés are, one from France, one from Russia, one from Germany, one from Austria, and one from Italy. The Japanese attaché arrived here two days ago.

On our arrival at Cape Town we found that General Buller was in Natal. On the day following we requested, jointly, through Col. Ivor Herbert, Grenadier Guards, who had been detailed by the war office to have us in charge and who had accompanied us from London, permission to join General Buller in Natal. We were informed officially that the request had been made by cable.

No answer being communicated to us, on December 6 we jointly officially requested permission to join temporarily the Kimberley relief force under Lord Methuen, then at Modder River and distant about 36 hours by rail, a battle being expected at that point within a few days.

On December 7 General Buller replied by cable as follows: "I promise the foreign attachés that they will be allowed to accompany the general advance later, but I can not allow them to join any flying column."

Lord Methuen's force was the largest then in Cape Colony and was engaged in the principal operation in that region, the relief of Kimberley. It consisted of some 14,000 men.

On December 9 we jointly repeated our request to be allowed to join General Buller. His answer received that night was a refusal.

* * * * * * *

On the following day, December 10, permission was granted by General Buller for us to join him in Natal.

We sailed on the first mail steamer, December 13, and arrived at Pietermaritzburg on December 18, three days after the battle of Colenso, and found orders to remain here. On December 20 we jointly requested to be allowed to join General Buller's headquarters in camp at Frere Station, about 75 miles from here, and 6 miles from the battlefield of December 15 at Colenso.

General Buller replied the following day that this request could not be granted, as he felt that we would be very uncomfortable in camp on account of the lack of water, etc., but that we could come up for a day and he would take us to the advance post at Chieveley and show us the battlefield and the Boer positions.

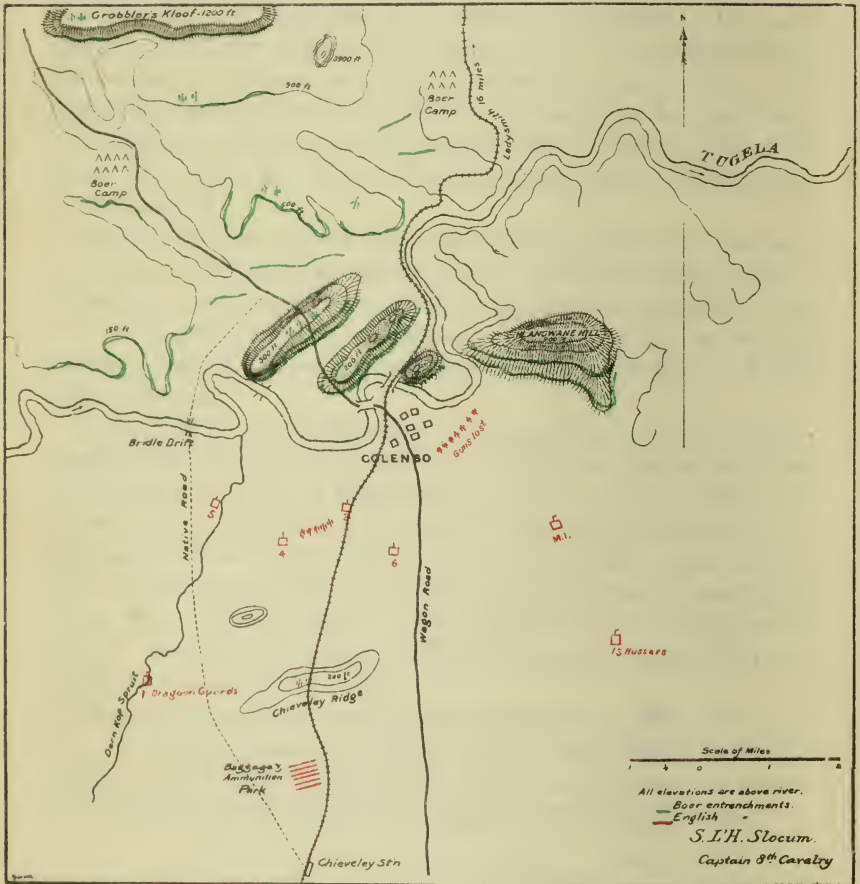
Accordingly, on December 23, we proceeded to Frere Camp, breakfasted with General Buller and then accompanied him to the advance post at Chieveley, where, from the ridge, we could see the battlefield in the plain below and the Boer positions across the Tugela River, where they still remained in their intrenchments and could be seen with glasses, working. From this advance post to the Tugela River wagon-road bridge—spoken of in General Buller's battle order as the Iron Bridge—is about 7,400 yards.

Before giving the present positions that the English hold from the extreme left at Modder River to the right at Chieveley, I will briefly describe this battle of Colenso to show the tendency of the English to make frontal attacks only.

* * * * * * *

That no attempt on a large scale to make a turning movement has been made, is probably due to the fact that they are confined strictly to the railroads, their wagon transportation being totally inadequate. The regimental transports with General Buller's force are drawn by oxen, though there are some 2,000 mules at Port Elizabeth not in use.

In the entire camp at Chieveley and Frere I counted only 60 wagons in my hurried ride through, though there were



probably more, but not many. Were it not for the railroads, their force would be almost immobile.

The Boers knowing this, pick out their position on the railroad, fortify it, and wait for the attack.

BATTLE OF COLENZO, DECEMBER 15.

Gen. Sir Francis Clery had immediate command, though General Buller was present and directing.

From the annexed tracing of a sketch from Chieveley Ridge made by me, I hope the following description will be fairly clear.

General Buller's or Sir Francis Clery's orders, annexed, were as follows:

Fifth brigade, General Hart, 4,000 infantry, to move toward Bridle Drift (or ford), to cross at this point and move toward the kopjes (small hills) north of the Iron Bridge.

Second brigade, General Hildyard, 4,000 infantry, to move in the direction of the Iron Bridge at Colenso; to cross at this point by wagon-road bridge (railroad bridge destroyed,) and gain possession of the hills north of the bridge.

Fourth brigade, General Lyttleton, 4,000 infantry, to advance to a point between Bridle Drift and the railway, so that it could support either the fifth or second brigades.

Sixth brigade, General Barton, 3,500 infantry, to move east of the railroad in the direction of Hlangwane Hill to a position where he could protect the right flank of the second brigade, and, if necessary, support it or the mounted infantry moving toward Hlangwane Hill.

One thousand mounted infantry—100 regulars, the remainder volunteers—with one battery field artillery, six 15-pounders, to move in the direction of Hlangwane Hill to enfilade the kopjes north of the bridge.

Eight hundred regular cavalry to cover the right and left flanks, respectively, and protect the baggage.

Second brigade division field artillery, 18 guns, to follow the fourth brigade and take up a position whence it could enfilade the kopjes north of the bridge, and to act under General Hart's orders.

Six naval guns, two 4.7-inch and four 12-pounders (lyd-dite), to advance on the right of the second brigade division field artillery. These guns took up a position on the kopje to the left front of Chieveley Ridge, where they remained during the action.

First brigade division field artillery, less one battery detached with mounted infantry, 12 guns, to move east of the railroad and proceed under cover of the sixth brigade to a point from which it can prepare the crossing for the second brigade, and to be accompanied by 6 naval guns. (It was 10 guns of this field artillery which were lost.)

The general movement began about 4 o'clock a. m., from behind Chieveley Ridge. The day turned out to be cloudless, perfectly still, and the equatorial sun was scorching, blazing hot.

From Chieveley Ridge to the Tugela River bridge is about 7,400 yards; the ground slopes down gradually to the river and affords practically no cover whatever—not a tree, or bush, or hollow.

The river divided the two forces, with the exception of Hlangwane Hill, which is on the south side and was occupied by the Boers.

The north or Boer side of the river commanded the entire English advance by a series of ridges and kopjes in the form of a semicircle of a radius of about 8 miles, with Colenso village in the center. All these ridges and kopjes were intrenched and on many were artillery, number unknown, but estimated at about 20 guns.

The Tugela River is about 100 feet wide, 8 feet deep, with steep banks, and could be crossed only by the wagon bridge—Iron Bridge at Colenso—and at Bridle Drift, and one to the right of it and lower down.

THE LEFT ATTACK.

General Hart's brigade; the fifth, advanced into the open plain toward Bridle Drift in a column of companies closed in mass, 6 paces interval between companies, and 32 companies; and it was only after a shell from the "Long Tom," a 6-inch Creusot, from Gröblers Kloof had dropped into their midst that they deployed. They were then about 2,000 yards from the river.

The brigade, for some at present unknown reason, advanced toward the ford about 2 miles below Bridle Drift.

The advance reached this ford, but found it impracticable on account of wire entanglements placed in it; some 40 men were drowned in the attempt.

The brigade was under murderous rifle and artillery fire at close range, and after suffering heavily, one company of the Dublin Fusiliers alone losing all its officers and 64 out of 100 men, it was forced to retire.

During this attack the naval guns and field artillery between the brigade and the railroad were heavily engaged endeavoring to protect the movement; their advanced position, that is, the field artillery, being about 3,600 yards from the enemy's intrenchments across the river. Fortunately the Boer shells either did not burst or burst too high, or the loss of life to the men at the guns and the Connaught Rangers and Dublin Fusiliers, who had now worked well to the right along the southern bank, would have been appalling.

The brigade and artillery began their retirement about 11 o'clock.

THE CENTER ATTACK.

The second brigade advanced toward Colenso in extended order, two battalions to the left and two battalions to the right of the railroad.

About midway across the plain and about 2,000 yards from the river, they were met by a terrific artillery and rifle fire from the kopjes in their front; the fire from Hotchkiss and Maxims being especially severe.

The fire was hottest about 9 o'clock. One company succeeded in getting into Colenso village, but was forced to abandon it shortly afterwards. The remainder of the brigade did not get nearer than 800 yards to the river.

This brigade suffered even more heavily than the fifth on the left.

About 7 o'clock, while the advance was taking place, Colonel Long, commanding the artillery brigade, first division, R. F. A., which was ordered to cover the crossing, directed the forty-fourth and sixty-sixth batteries to take up a position to the right of the line and within 800 yards of the river.

Before the guns reached their position they were within the radius of the enemy's fire, and men and horses began to fall before the command "Unlimber" was given.

They were exposed to infantry fire from the front and from the right from Hlangwane Hill, within a thousand yards' range; in addition the guns on the kopjes directly across the river concentrated their fire upon them.

In spite of it all the guns were unlimbered and engaged the enemy. Finally the men and horses were nearly all killed and the ammunition exhausted; it was then that the order was given to abandon the guns and retreat to a small ravine (donga), about 150 yards in rear.

Ten guns were subsequently captured by the enemy after the English withdrawal, the other two being rescued by an aid to General Buller, with the assistance of some teams and drivers.

An attempt made by six companies of the second brigade to save the guns was frustrated by the enemy's fire, and, after losing heavily, all, except a few who had taken shelter in the ravine with the artillery, fell back.

The center attack had thus failed, and at about 11 o'clock the order to retire was given.

THE RIGHT ATTACK.

The mounted infantry advanced toward Hlangwane Hill, which was not believed to be strongly held by the enemy, but the reverse was found to be the case. There was no more shelter here on the bare veldt than on the rest of the field, and after some loss they, too, fell back.

The whole English army had recoiled from the line of Boer intrenchments. The battle was practically over by noon; the only ones who remained in the front line being the artillerymen and some of the infantry who had succeeded in reaching it, in their gallant but futile effort to rescue those who were in the ravine in rear of the guns. It was hopeless for these to look for succor unless the whole division came to their relief, and the Boer riflemen in the trenches were ready to pour in a withering fire the moment such an attempt would be made. They were all captured with the guns.

An heroic and superb fight all along the line, but a hopeless one.

The total English forces engaged were 16,000 infantry, 1,000 mounted infantry, 36 field artillery guns, 6 naval guns, and 250 men naval brigade.

The 6 naval guns mentioned in concluding paragraph in General Clery's battle order do not seem to have advanced beyond Chieveley Ridge and are, therefore, not included in the fighting force on the actual field.

The total losses in this action were as follows :

	Killed.	Wounded.	Missing.
Officers.....	5	36	21
Men	160	634	311

A striking feature of the battle was the total invisibility of the enemy, not a Boer being seen during the fight.

The general positions of the English forces of to-day, December 25, along the entire front, from Modder River on the left to Chieveley on the right, is about as follows :

On the extreme left, the Kimberley relief force under Lord Methuen is at Modder River, upon which point he retired after the battle of Magersfontein, December 10, and consists of about 14,000 men and 38 guns. On his line of communication south are small forces at Witteputs station, Belmont, Enslin, Orange River, and De Aar; about 6,000 men and 9 guns.

CENTER.

At Naauw Poort General French has about 900 cavalry, 3,000 infantry, and two batteries of horse artillery. At Sterkstroom and immediate vicinity, General Gatacre has 2,500 infantry, 1,000 mounted infantry (volunteers), and 26 guns, 6 of which are howitzers, using lyddite shells.

Port Elizabeth and East London are held as bases of supply for Naauw Poort and Sterkstroom, and the lines of railroad guarded by about 2,000 men each, mostly volunteers.

The railroad between Rosmead Junction and Stormberg has been cut and can not therefore be used.

ON THE RIGHT, IN NATAL.

General Buller had at Chieveley, Frere, Estcourt, Mooi River, Pietermaritzburg, and Durban about 27,000 men,

including local volunteers, with twelve field batteries, one mountain battery, and 20 naval guns, using lyddite.

The above forces do not include the fifth division, whose destination, except two battalions, is Natal.

GENERAL SITUATION.

1. The leading features of the present situation are that at each extreme of the theater of war, separated by a distance of some 700 miles, operations are being carried on for the reopening of communications with invested places, Kimberley and Ladysmith, while in the center two weak forces, not yet in direct communication with each other, are holding the front of the southern frontier of the Orange Free State.

2. It will be necessary to carry out General Buller's original plan of campaign, to strengthen the center by troops drawn from the flanks, so as to prepare a concentrated attack from that direction.

3. The deficiency of regular cavalry everywhere is much felt. This is partly remedied by the raising of local mounted forces.

4. A fresh division, the fifth, about 11,140 men of all corps, has arrived at Cape Town, and General Buller is supposed to be now awaiting it before resuming the offensive.

5. The country generally in Cape Colony and Natal, as far as I have seen it, is well adapted for operations of all arms; there are excellent country roads and no natural features, other than rivers, that could not readily be avoided by a mobile force not tied to a railroad. Here in Natal, though we are supposed to be now in the midst of the rainy season, there is infinitely more dust than mud.

The rivers are low and pontoons abundant with all forces which I have seen.

RAILROADS.

All are single-tracked, both in Cape Colony and Natal, gauge 3 feet 6 inches, and rolling stock, they say, sufficient for ordinary needs. These roads are owned by the two colonial governments.

The following lines of communication are at present forming the principal ones:

Cape Town-Modder River.

De Aar-Naauw Poort.

Port Elizabeth—Naauw Poort.
East London—Sterkstrom.
Durban—Chieveley.

I have inspected the hospitals in Cape Town and here. They are excellent in every way, and especially good is the field ambulance service.

I have also witnessed the disembarkation and entraining of troops and material; the result of which I will embody in my report at the close of the war, unless sooner desired by the War Department.

COMMENTS.

I consider the present situation, December 25, to be the most critical for the English forces since hostilities began.

They have been defeated all along the line, and should the Boers assume offensive operations, which is not probable, judging from the past, the English armies, with their long and thinly guarded lines of communication, would be placed in great jeopardy.

Even with the mobilization of three more divisions, of a little over 11,000 each, which would give a total of eight divisions, in my opinion the campaign can not succeed unless they abandon their flank offensive operations, letting Kimberley with its garrison of 1,500 men and Ladysmith with its 9,000 officers and men, go, if needs must, and advance, as was General Buller's original intention, from the center through Orange Free State.

This advance would, I believe compel the withdrawal of the investing forces from these places and carry the war into the enemy's country, which as yet has been only very slightly disturbed, by the operations of Colonel Plumer, who has invaded the northern part of the Transvaal from Rhodesia with a few hundred men.

I may be wrong in my rather pessimistic conclusions about the result of the flank movements. I hope so, I frankly admit; but a careful study of the situation compels my judgment to form the deductions given.

The Boer forces are all mounted on small, hardy ponies which are trained to stand where they are left; they are superb rifle shots; have undoubtedly expert foreign artillerymen behind their guns, and, finally, they are operating along interior lines.

I do not doubt the ultimate success of the English arms if they advance in force from the center, but even then it will be a long and hard struggle before they reach Pretoria.

In Cape Colony there is a large element—Dutch—which is either in open or, what is worse, in secret sympathy with the Boers.

About 2,000 Cape Colony Dutch have already joined the Boers, and when it is remembered that the proportion of Dutch to English in that colony is about six to four the gravity of the situation may be appreciated.

Here in Natal the people are much more loyal.

An estimate of the Boer forces, which I have just seen and which is pronounced to be probably not far from correct, gives the Transvaal forces as 27,000 and the Orange Free State army as 21,000.

I also annex a copy of the orders given Lord Methuen when he began his advance for the relief of Kimberley.

In conclusion I will state that I have met with nothing but universal courtesy and good will from all Englishmen with whom I have come in contact, civil and military, and I can not but feel that this is due entirely to the fact of my being an American.

I am, sir, very respectfully,

S. L'H. SLOCUM,
Captain Eighth Cavalry,
Military Attaché, English South African Field Force.

ORDERS BY LIEUT. GEN. SIR FRANCIS CLERY, K. C. B., COMMANDING SOUTH NATAL FIELD FORCE.

CHIEVELEY, *December 14, 1899, 10 P. M.*

1. The enemy is intrenched in the kopjes north of Colenso Bridge. One large camp is reported to be near the Ladysmith Road about 5 miles northwest of Colenso. Another large camp is reported in the hills which lie north of the Tugela in a northerly direction from Hlangwane Hill.

2. It is the intention of the general officer commanding to force the passage of the Tugela to-morrow.

3. The fifth brigade will move from its present camping ground at 4.30 a. m. and march toward Bridle Drift immediately west of the junction of Dornkop Spruit and the Tugela. The brigade will cross at this point, and after crossing move along the left bank of the river toward the kopjes north of the Iron Bridge.

4. The second brigade will move from its present camping ground at 4.30 a. m., and passing south of the present camping ground of No. 2 divisional troops, will march in the direction of the Iron Bridge at Colenso. The brigade will cross at this point and gain possession of the kopjes north of the Iron Bridge.

5. The fourth brigade will advance at 4.30 a. m. to a point between Bridle Drift and the railway so that it can support either the fifth or the second brigade.

6. The sixth brigade (less a half battalion escort to baggage) will move at 4 a. m. east of the railway in the direction of Hlangwane Hill to a position where it can protect the right flank of the second brigade and, if necessary, support it or the mounted troops referred to later as moving toward Hlangwane Hill.

7. The officer commanding mounted brigade will move at 4 a. m. with a force of 1,000 men and one battery of No. 1 brigade division in the direction of Hlangwane Hill; he will cover the right flank of the general movement and will endeavor to take up a position on Hlangwane Hill, whence he will enfilade the kopjes north of the Iron Bridge.

The officer commanding mounted troops will also detail two forces of 300 and 500 men to cover the right and left flanks, respectively, and protect the baggage.

8. The second brigade division R. F. A. will move at 4.30 a. m., following the fourth brigade, and will take up a position whence it can enfilade the kopjes north of the Iron Bridge. This brigade division will act on any orders it receives from Major General Hart.

The six naval guns (two 4.7 and four 12-pounders) now in position north of the fourth brigade will advance on the right of the second brigade division R. F. A.

No. 1 brigade division R. F. A. (less one battery detached with mounted brigade) will move at 3.30 a. m. east of the railway and proceed under cover of the sixth brigade to a point from which it can prepare the crossing for the second brigade.

The six naval guns now encamped with No. 2 divisional troops will accompany and act with this brigade division.

9. As soon as the troops mentioned in the preceding paragraphs have moved to their positions the remaining units and the baggage will be parked in deep formation, facing north, in five separate lines in rear of to-day's artillery positions, the right of each line resting on the railway, but leaving a space of 100 yards between the railway and the right flank of the lines.

In first line (counting from the right):

Ammunition column No. 1 divisional troops.

Sixth brigade field hospital.

Fourth brigade field hospital.

Pontoon troop R. E.

Fifth brigade field hospital.

Second brigade field hospital.

Ammunition column No. 2 divisional troops.

In second line (counting from the right):

- Baggage of sixth brigade.
- Baggage of fourth brigade.
- Baggage of fifth brigade.
- Baggage of second brigade.

In third line (counting from the right):

- Baggage of mounted brigade.
- Baggage of No. 1 divisional troops.
- Baggage of No. 2 divisional troops.

In fourth and fifth lines (counting from the right):

Supply columns, in the same order as the baggage columns in second and third lines.

Lieut. Col. J. Reeves, Royal Irish Fusiliers, will command the whole of the above details.

10. The position of the general officer commanding will be near the 4.7-inch guns.

The C. R. E. will send two sections seventeenth company, R. E., with the fifth brigade, and one section and headquarters with the second brigade.

11. Each infantry soldier will carry 150 rounds on his person, the ammunition now carried in the ox wagons of regimental transport being distributed. Infantry greatcoats will be carried in two ox wagons of regimental transport, if brigadiers so wish; other stores will not be placed in these wagons.

12. The G. O. C. sixth brigade will detail a half battalion as baggage guard. The two naval guns now in position immediately south of head-quarter camp will move at 5 a. m. to the position now occupied by the 4.7-inch guns.

By order:

(Signed) B. HAMILTON,
Colonel, A. A. G.,
South Natal Field Force.

The following were the instructions given to Lord Methuen on proceeding to Kimberley:

1. To raise the investment.
2. To revictual the place, which at the end of October had rations for from seventy to one hundred days.
3. To reinforce the garrison by a naval brigade with heavy guns, and organize future defense.
4. To withdraw his main force to De Aar as soon as the above should be accomplished.

REPORT No. 2.

LEGATION OF THE UNITED STATES,
BLOEMFONTEIN, SOUTH AFRICA, *March 20, 1900.*

ADJUTANT GENERAL, UNITED STATES ARMY,
Washington, D. C.

SIR: I have the honor to report that since my dispatch of December 25, 1899, No. 1, the following events have occurred in the different theaters of war which have come under my observation.

All the military attachés remained at Pietermaritzburg, Natal, until January 2, when we moved up to Estcourt, 15 miles from General Buller's camp, he declining to allow us to proceed farther.

On January 9 we heard that General Buller contemplated moving in a few days from his camp at Frere and Chieveley in a second attempt to relieve Ladysmith.

We officially requested of General Buller to be allowed to move up to his camp, so as to be prepared to accompany him at an hour's notice. His reply is affixed.

* * * * *

On January 10 an order was issued by Colonel Herbert in Lord Roberts's name for us all to proceed to Cape Town. Arriving there on the 20th, we reported the following day to Lord Roberts.

On February 5 Lord Roberts left Cape Town, accompanied by his entire staff, to prepare finally for his movement later into the Orange Free State. Absolute secrecy was preserved in regard to his movements, a very necessary precaution, as Cape Town was filled with the enemy's spies, and we did not know until the 12th, when we received an order to join him at Enslin, where he had gone.

We reached Enslin on February 14 and found there an order to join headquarters at Waterval Drift in Orange Free State.

On the 15th we all started for Waterval Drift with a convoy and small infantry escort.

The Austrian attaché and myself rode on in advance of the others. On reaching Ramdam we heard artillery firing in our front and galloped ahead. On reaching Waterval Drift

we found the British rear guard, with a convoy of some 200 wagons, engaged and cut off by the Boers, the army having proceeded to Wegdraai Drift early in the morning.

After watching the fight for awhile and not wishing to return to Enslin, Captain Trimmel and I decided to try, if possible, to join Lord Roberts's headquarters at Wegdraai Drift.

We reached his headquarters that evening and I have remained with them to date.

The other military attachés joined, from Modder River station on the railway, his headquarters at Jacobsdal on the night of the 17th.

INFANTRY.—Lord Roberts's force, when it had concentrated at Ramdam, consisted of three divisions of infantry, the sixth, seventh, and ninth. Each division was composed of two brigades of four regiments each.

Sixth division, General Kelly-Kenny :

Thirteenth brigade, General Knox.

Eighteenth brigade, General Stephenson.

Seventh division, General Tucker :

Fourteenth brigade, General Wavel.

Fifteenth brigade, General Chermiside.

Ninth division, General Sir H. Colville.

Third brigade, General Macdonald.

Nineteenth brigade, General Smith-Dorrien.

General Lord Kitchener was Lord Roberts's chief of staff.

The average strength of the regiments was about 750 men, the normal being 1,000.

Total strength in infantry, about 18,000.

Each division had also the following divisional troops :

Three batteries* of royal field artillery and ammunition column.

One field company royal engineers.

One company army service corps—supply.

One company royal army medical corps—field hospital.

Each regiment had a Maxim machine gun.

*The three batteries of the ninth division did not join it until February 28 at Paardeberg Drift.

CAVALRY.—The cavalry division under General French consisted of three brigades.

First brigade, General Porter:

Three regiments and an extra squadron.

Second brigade, General Broadwood:

Three regiments, one dragoons, one hussars, and one lancers.

Third brigade, General Gordon:

Two regiments of lancers.

The regiments averaged 360 men each, which, with the extra squadron of 115 men, gave the division about 2,995 men.

The divisional troops were as follows:

Seven batteries, royal horse artillery, 42 guns.

One field company royal engineers.

One company army-service corps—supply.

One company royal army medical corps—field hospital.

One machine gun per regiment.

MOUNTED INFANTRY.—Two brigades of five regiments each, four of which were composed of men taken from the regular infantry, 250 men each, and one colonial volunteers of 400 men, making a total of 1,400 to a brigade, and a grand total of 2,800 mounted infantry.

First brigade, Colonel Hanney.

Second brigade, Colonel Ridley.

On February 25 these colonials and others which had joined on that date were formed into two additional brigades.

Third brigade, Brevet Colonel Le Gallais, Eighth Hussars.

Fourth brigade, Brevet Colonel Mahon, Eighth Hussars.

The third and fourth brigades numbered each about 1,000 men, giving a total on that day, February 25, of about 3,800 men.

The general rule was not to assign permanently the mounted infantry to any particular unit, but to allot it from time to time as the exigencies of the service demanded.

NAVAL BRIGADE.—Consisted of 250 sailors and 150 marines, the former serving the guns and the latter acting as guard for them.

The guns pertaining to this brigade were four 4.7-inch and four 12-pounders or 3-inch. The 4.7-inch guns use lyddite, common shell and shrapnel; the 12-pounders the two latter kinds of ammunition only. The 4.7-inch guns weigh, with

carriage, about 7,000 pounds, and are drawn by 16 pairs of oxen, mules being used to draw the 12-pounders.

ARTILLERY.—The following is a summary of the artillery:

Six batteries of royal field artillery, 15-pounders, 36 guns.

Seven batteries of royal horse artillery, 12-pounders, 42 guns.

One battery of 5-inch howitzers, 6 guns.

Naval guns, 8.

Total, 92 guns.

On the 26th, four 6-inch howitzers, three Vickers-Maxim automatic guns, 37-millimeter or 1½-inch, arrived. On the 28th the three batteries of field artillery belonging to the ninth division joined it. One balloon section and one telegraph division completed the force.

The British army thus had, when it began its advance, combatants, a grand total of about:

Infantry	18,000
Cavalry	2,995
Mounted infantry	2,800
Total	<u>23,795</u>
Artillery guns	92

Tents were carried only for the hospitals, the remainder of the army had none, neither officers nor men, not even the generals of division.

All officers were restricted to 70 pounds and men to 30 pounds personal baggage.

THE ADVANCE.

The advance began on February 11.

FEB. 11.—*Cavalry division*.—From Modder River railway station, via Enslin to Ramdam.

Seventh division.—Graspan to Ramdam, accompanied by one brigade of mounted infantry.

FEB. 12.—*Cavalry division*, followed by the *seventh division*.—Ramdam to Dekiel Drift.

The cavalry encountered some small parties of the enemy, who offered a slight resistance, but who fell back as the cavalry advanced.

Sixth division.—Accompanied by headquarters and preceded by the second brigade of mounted infantry, Enslin and Graspan to Ramdam.

Ninth division.—Enslin to Ramdam.

FEB. 13.—*Cavalry division*.—From Dekiel Drift to Klip Drift, passing about 5 miles east of Jacobsdal.

At Klip Drift the cavalry encountered General Cronje's force retiring from Magersfontein eastward along the Modder River and engaged it.

Sixth division.—Ramdam to Waterval Drift.

Seventh division.—Remained at Dekiel Drift.

Ninth division.—Ramdam to Dekiel Drift.

FEB. 14.—*Cavalry division*.—Engaged with enemy at Klip Drift throughout the day.

Sixth division.—Waterval Drift to Klip Drift, arriving shortly after midnight, with first brigade mounted infantry.

Lord Kitchener, chief of staff, accompanied this division and remained with it to Paardeberg Drift.

Seventh division.—Dekiel Drift to Wegdraai Drift, arriving at 2 a. m., 15th. Three regiments mounted infantry accompanied it.

Ninth division and headquarters.—Dekiel Drift to Waterval Drift.

The remaining two regiments mounted infantry, second brigade, accompanied it.

FEB. 15.—*Cavalry division*.—After driving the enemy from some of their positions opposite the drift on the north bank of the river, the cavalry division advanced toward Kimberley, which they came in sight of at 2.30 p. m. The enemy's artillery was firing on the city when the cavalry appeared, but after slight opposition retreated northward with their guns, one of which was a "Long Tom" 15.5-centimeter Creusot.

The cavalry entered Kimberley.

No pursuit, for any distance, of the enemy was made, General French stating that his horses were completely done up. The weather was extremely hot, about 110° F. in the shade and there was no time to water en route. Seven hundred horses were abandoned at Kimberley.

Sixth division.—Took up the fighting with General Cronje's army at Klip Drift.

Seventh division.—Fourteenth brigade, Wegdraai to Waterval Drift, arriving about 5 o'clock p. m.

A convoy of 200 ox wagons, the main supply park of the army, had been left at Waterval Drift when the army advanced to Wegdraai Drift before dawn of the 15th, with an escort of about 200 mounted infantry only. This convoy

the enemy attacked, cutting off this rear guard from the other forces. The fourteenth brigade was sent back to its assistance with a battery of field artillery. One hundred and fifty of the wagons with about 3,000 oxen were captured by the enemy.

These wagons contained 140,000 rations for the men and 24,000 rations of forage, the balance of their contents having already been used.

The loss of these wagons and rations was a most serious blow, as the army had started from the railroad with a supply park of only 200 ox wagons all told, 100 of which carried rations and 100 forage.

The supplies of the army were now reduced to three days' full rations and forage, consisting of that carried in regimental mule transports, two days, and the one day's rations carried on the men's persons, and some 300 slaughter oxen. In addition there was one day's emergency ration.

The troops were at once placed on half rations. Lord Roberts was here confronted with a crisis which would have staggered and been the undoing of many commanders in chief placed as he was.

He was in the enemy's country, cut loose practically for the time being from his base on the railroad, with a mobile and unknown number of the enemy in his rear on his only line of communication. His transport wagons were almost all captured and his army was suddenly reduced to three days' full rations on the very eve of a great movement for the relief of a beleaguered city, the hoped-for capture or destruction of the enemy's principal force in that theater of war and subsequently his capital; and the country afforded no food whatever.

This crisis developed when the commanding officer of the fourteenth brigade reported by courier that on his arrival at Waterval Drift, he found, in position with artillery commanding his approach, the enemy who was then in possession of the convoy; further that it would require reinforcements next day to defeat the enemy and retake the wagons.

This meant at least two days' delay and French was already approaching Kimberley with the cavalry and the sixth division was engaged with the enemy at Klip Drift.

I was personally fortunate in being with Lord Roberts's headquarters at this time, having ridden through Waterval Drift from Enslin that day. Every one of the staff was in

intense suspense and it was not until 2 o'clock in the morning that Lord Roberts gave his decision, which was, tersely, "Gentlemen, the army will advance in two hours."

Seventh division.—Fifteenth brigade, Wegdraai to Jacobsdal, which it occupied with little resistance.

Ninth division.—Waterval Drift to Wegdraai Drift, leaving the former at about 4 a. m.

FEB. 16.—*Sixth division.*—Thirteenth brigade, toward Brand Vallei, engaged with the enemy's rear guard. Eighteenth brigade remained at Klip Drift.

Seventh division.—Fifteenth brigade remained at Jacobsdal with headquarters. Fourteenth brigade from Waterval to Klein Blaauwbank.

Ninth division.—Wegdraai to Klip Drift.

FEB. 17.—*Cavalry division.*—Two brigades left Kimberley and reached Modder River in the afternoon about 4 miles above Paardeberg Drift, and thus blocked enemy's further retreat eastward.

One brigade remained at Kimberley.

Sixth division.—Thirteenth brigade to Brand Vallei, eighteenth brigade from Klip Drift to Brand Vallei.

This division was thus united on the afternoon of the 17th. The division then, at 5 p. m., proceeding to Paardeberg Drift and fighting the enemy's rear guard, reached Paardeberg at 9.30 p. m.

Seventh division.—Fourteenth brigade from Klein Blaauwbank to Jacobsdal; fifteenth brigade remained at Jacobsdal.

Ninth division.—From Klip Kraal Drift to Paardeberg Drift, arriving about 11 p. m.

Thus there were at Paardeberg Drift on the night of the 17th two divisions of infantry, two brigades of mounted infantry, and the cavalry division—two brigades—4 miles above in front of the enemy.

There had been collected at Jacobsdal on the 17th three days' more full rations, giving the army half rations to include the 26, and 4 pounds of grain per animal to include the same date.

FEB. 18.—The situation on the morning of the 18th was as follows:

The enemy, under Cronje, with all his transportation, was in all practical effect, surrounded, though by abandoning his

wagons and supplies, being all mounted, a large number could have undoubtedly escaped.

The reluctance to abandon his wagons, the confidence inspired by his successful stand at Magersfontein for so long a period, and the previous almost universal success of the Boer arms, added to the hope of reinforcements soon reaching him, had all probably combined to influence him in his fatal decision to stand and fight it out there.

He had fought a fine rear-guard action, of which the English officers engaged speak in the highest terms.

The sixth and ninth divisions were in his rear and the cavalry in his front, but—a fact he could not know—with their horses so completely knocked up that for two days they practically did nothing beyond occupying the ridges east of his laager. During the battle of this day, the 18th, the cavalry took no other part.

The seventh division, with headquarters, was at Jacobsdal.

Seventh division.—Fourteenth brigade from Jacobsdal to Klip Drift; fifteenth brigade remained with headquarters at Jacobsdal.

FEB. 19.—Lord Roberts and his headquarters, accompanied by all the military attachés, proceeded from Jacobsdal to Paardeberg Drift, arriving at 10.30 a. m.

Fourteenth brigade, seventh division, from Klip Drift to Paardeberg.

Guard's brigade from Modder River railway station to Klip Drift, increasing Lord Roberts's infantry to about 21,000 men, though this brigade and the fifteenth did not join the forces engaged at Paardeberg Drift until after General Cronje's surrender.

BATTLE OF FEBRUARY 18.

The annexed sketch shows the relative positions of the two armies on the day of General Cronje's surrender.

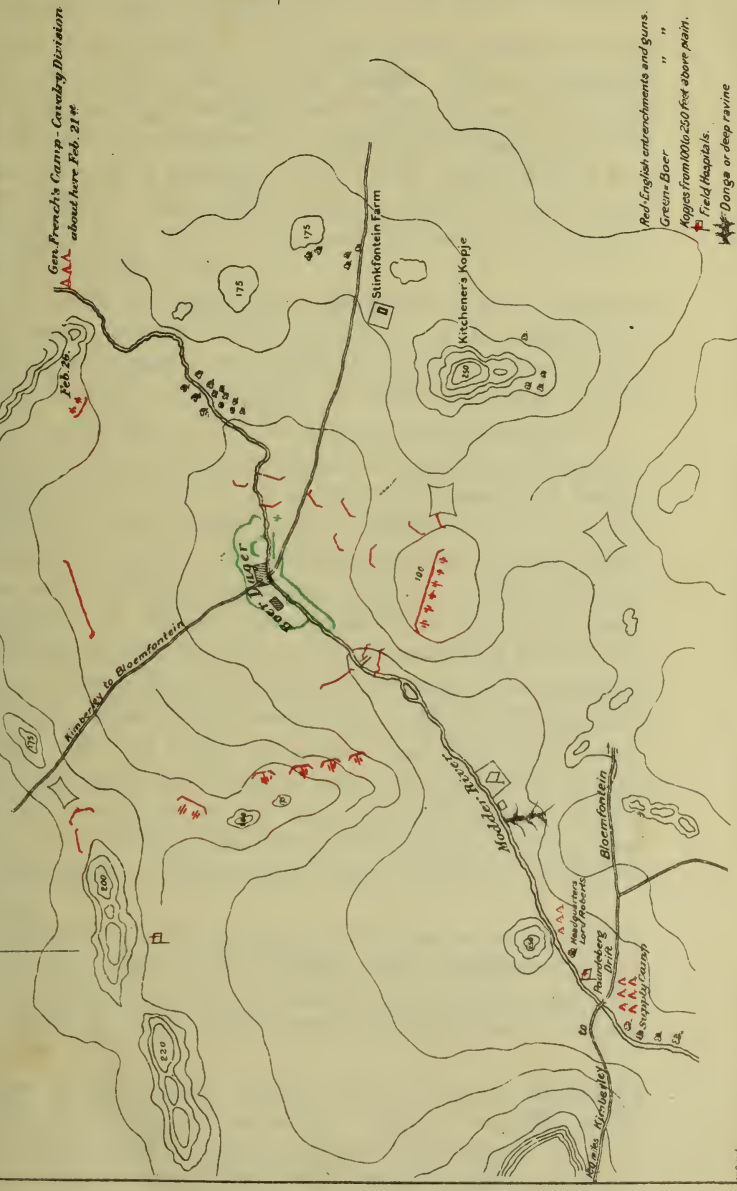
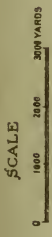
The Modder River is about 120 feet wide, with steep banks of about 20 feet. It can only be forded by wagons at the drifts, but mounted men at ordinary stages of the water can ford it anywhere. The current is swift, and with a rise of 2 feet the river becomes unfordable even at the drifts. The ordinary depth of the fords is about 3 feet.

The artillery opened on the Boer laager about 6 a. m., two battalions of the fourteenth brigade going above the laager to the river in the clump of trees northeast of laager.

SKETCH OF
BATTLEFIELD OF PAARBERG DRIFT
 ORANGE FREE STATE

BY
 CAPT. S. L. H. SLOCUM, 8th CAVALRY,
 MILITARY ATTACHE.

*Gen. French's Camp - Cavalry Division
 about here Feb. 21st*



Red-English entrenchments and Guns.
 Green-Boer
 Hospitals from 100 to 250 feet above main.
 Field Hospitals.
 Donge or deep ravine

One brigade, the nineteenth, crossed Paardeberg Drift to the north of the river under heavy fire from the hills west of the ford and the kopje just above it.

The enemy was found to be occupying also the river bed from just above the drift to the laager. The nineteenth brigade, after turning the hills and kopje by moving north of them, the enemy retiring up toward the laager, moved toward the river to a position about 3,000 yards below and west of the laager. The third brigade attacked the enemy from the south side of the river and drove him from just above the drift up the river.

The sixth division, less the two regiments sent to the river above the laager, attacked the river bed from the south, their line being in prolongation of the third brigade up the river. The enemy's wagons were parked, or rather bunched, on the plain on the north side of the river as marked in sketch.

Kitchener's Kopje, which proved to be the key of the position, commanding both the plain between it and the laager and toward the south, was not then occupied by the enemy who was in the river bed; the British neglected to occupy it, but sent a small force of mounted infantry to Stinkfontein farm, about 11 a. m. While General Kelly-Kenny, commanding sixth division, was having a hasty breakfast at the foot of the kopje, he was fired upon from its crest, as the enemy's reinforcements, about 1,200 men with a Maxim-Nordenfelt gun, having come up from the south, had found the kopje unoccupied and taken it. They had also occupied Stinkfontein farm and captured most of the mounted infantry, 6 officers and 58 men, who were there, the rest escaping. This force was a detachment of Kitchener's horse colonials raised in Cape Colony.

The occupation of this kopje and the farm proved a veritable thorn in the side of the British, and isolated the two regiments north of the laager from their division and supplies; the cavalry, being on half rations themselves, could not help them.

The losses of the British during the day were: Killed, 14 officers and 198 men; wounded, 57 officers and 879 men; missing, 6 officers and 58 men; 2 officers prisoners.

Early on the morning of the 19th General Cronje asked for an armistice of twenty-four hours to bury his dead and collect the wounded, to which Lord Kitchener replied as follows, but ordered the answer to be signed "French:"

"I have the honor to acknowledge receipt of your letter to-day, and have sent your communication to commander in chief, British forces; as soon as I receive his reply I will inform you. In the meantime I shall not attack your laager; seeing, however, that you are completely surrounded, I would advise you to surrender with your forces, and peace will again reign in the land.

FRENCH."

When Lord Roberts arrived at 10.30 he demanded unconditional surrender, to which demand General Cronje replied as follows:

"Since you are so unmerciful as not to accord me the time asked for, nothing remains for me to do but as you wish."

Lord Roberts replied: "Accept surrender; please return with Captain Liebman."

Captain Liebman was the bearer of the communication and speaks Dutch fluently. General Cronje speaks no English.

At 3.15 p. m., the third brigade started to move down from the southern artillery position across the plain to the laager, in close column, to receive the prisoners. As they appeared out of the crest of the ridge they were fired upon from the river bed and trenches and fell back behind the ridge, fortunately without any casualties. At the same moment Lord Kitchener rode up and said, "They have changed their minds and won't surrender."

This movement of the third brigade took place before the bearer of the flag of truce, accepting the surrender, had returned to Lord Roberts. On his return he carried the following message from General Cronje: "Since you are so unmerciful as not to accord me the time asked for, nothing remains for me to do; you do as you wish. During my lifetime I will never surrender. If you wish to bombard, fire away. *Dixi*." All these and subsequent communications passing between Lord Roberts and General Cronje were in writing.

Captain Liebman, with a sergeant carrying a large white flag—a large bath towel—was the bearer of these communications, and, on his return to Cronje's laager with the letter accepting the surrender, was fired upon by the enemy, the sergeant's horse being killed. I saw this myself. They were at no time over 2,500 yards distant from the enemy; it was a

bright, sunny day and the white flag looked to me as large as a house, a slight exaggeration.

They were in plain view of the enemy upon the open plain; in fact, were the only objects on it.

Something had evidently occurred to alter General Cronje's decision about surrendering, and the firing upon the flag of truce bearing Lord Roberts's acceptance, would seem to me to indicate that some of the other Boers, readily guessing what it was, did not wish it to be received. The facts will probably never be known.

There was hardly any firing during the rest of the day by either army, the British artillery all taking up positions north and south of the river as indicated on the sketch.

There were north of the river the 5-inch howitzer battery, three 4.7-inch and one 12-pounder naval guns, and three batteries of field artillery. On southern side, one 4.7-inch, three 12-pounders, naval, and three batteries of field artillery. The remaining three batteries allotted to the ninth division had not yet arrived.

During this night and the ones following until the surrender, the British gradually and cautiously advanced their trenches, until they finally reached the positions shown on the sketch.

General Kitchener said in my hearing: "If I had known yesterday, the 18th, what I know to-day, I would not have attacked the Boers in the river bed; it is impossible against that rifle."

From the southern artillery position and Kitchener's Kopje the ground gradually slopes down to the river, is flat and without cover of any kind. The same description applies to the plain north of the river.

FEB. 20.—Artillery opened from both sides of the river on the enemy in trenches and river bed and on the wagons at 6 a. m., eliciting no response from the enemy's guns. In fact, the Boer guns did not fire, excepting the Vickers-Nordenfelts, the entire time up to the surrender; this was afterwards explained by them as due to the fact that they had nothing but black powder and were afraid to use it on account of the target it would make. Heretofore they had used smokeless powder in all their forces, but General Cronje's supply had become exhausted.

There was no infantry fire other than an occasional Boer "sniper" during the day.

During the night two regiments of the fourteenth brigade, under General Cherm-side, started across the plain between the laager and Kitchener's Kopje to reenforce the two regiments of the same brigade in river bed north of laager.

General Cherm-side halted when half across the plain and went into bivouac. The night was clear and starlight.

FEB. 21.—The cavalry division complete, the third brigade having joined it from Kimberley on the evening of the 20th, moved down the river on the north side, crossed at Paardeberg Drift, and advanced around to the south of Kitchener's Kopje and the farm, followed by a brigade of mounted infantry, Ridley's, with one battery of field guns, and opened fire with the eight batteries at 8.30 a. m.

This movement left the country northeast of the river almost entirely open, and General Cronje could have easily escaped in that direction, had he known of the fact and desired to do so, with those of his command whose ponies had not been killed.

When he surrendered there were no ponies left. The two regiments of the fourteenth brigade under General Cherm-side, which had gone into bivouac on the plain, discovered at dawn that they had lost their way and were within 500 yards of the enemy's laager. The enemy seemed to have been so paralyzed with astonishment when they discovered them that it was an hour before they opened fire.

The British could neither advance nor retire on the open plain under the Mauser fire from the river and Kitchener's Kopje, so they did the only thing left for them to do—lay down and waited for night or Providence to extricate them. Any reinforcements sent during daylight would have been decimated.

Providence appeared at exactly 8.30 a. m. in the form of cavalry—it often does in war.

The moment French opened with his artillery on the kopje and farm, the enemy, taken in reverse, jumped on their ponies and retreated, abandoning their wagons. Some escaped through the interval between the cavalry and mounted infantry, which was about 2 miles in rear of the cavalry.

Of these Boers all escaped uninjured. French captured and killed only a few. He did not pursue, as the enemy's ponies were fresher than his horses, he said.

* * * * *

General Chermiside's two battalions, perceiving that the fire from the kopje had ceased and hearing the cavalry guns from the south, concluded, or rather hoped, that the kopje had been evacuated by the enemy; these battalions drifted toward and finally occupied it, but were subsequently moved to the farm, one regiment of the sixth division with one field gun taking their place.

Marvelous to state, the casualties in these two battalions were less than 60 killed and wounded. I believe this immunity from serious loss was due to their almost invisibility in the khaki uniform while lying down on the brown veldt. It might also be to some degree attributed to the poor marksmanship of the Boers. In either case they were very lucky men.

* * * * *

In the evening 100 wagons of all kinds and description arrived at Kimberley with 120,000 rations and two days' forage.

The other brigade, the fifteenth, in the evening reenforced the two regiments in the river bed above the laager, where they had been since the 18th practically without rations.

Lord Roberts during the day sent to General Cronje, under a flag of truce, the following communication:

"I have learned only to-day that there are women and children in your laager. If this be the case I shall be happy to give them a safe-conduct through our lines to any place to which they may wish to go. I must express to you herewith my regret that during the recent actions they have been exposed to our fire, owing to the fact that we were ignorant of their presence with your forces. I have also heard that there is a lack of doctors and medicines, and if you are in need of them I shall have great pleasure in sending you either or both."

To this General Cronje replied:

"Safe-conduct declined; accept offer of doctors and medicines, but stipulate that when doctors have entered this laager, they will not be allowed to leave until such time as I shall shift it."

Lord Roberts answered :

“I have the honor to acknowledge the receipt of your letter of this morning in answer to my offer to send you doctors and medicines. Seeing the conditions you attach thereto, namely, that doctors will not be allowed to leave your laager until such time as you shift it and seeing also that I can not spare my medical officers for such an indefinite period, I am reluctantly compelled to withdraw my offer.”

FEB. 22.—General Cronje replied to Lord Roberts’s communication as follows :

“On second thought, I beg to make the following suggestion: That you supply me with full hospital equipment, medicines, and doctors, to whom free access will be given, and I am willing that the hospital should be erected 1,000 yards west of my laager.”

It may be remarked that though free “access” is accorded nothing is said about exit. The British trenches had on this date approached to within about 1,500 yards from the west of General Cronje’s laager and a hospital being erected between the two would have placed the ground “in sanctuary” and barred the further approach from that direction of the British trenches and firing line.

Lord Roberts answered :

“I regret I have not sufficient hospital accommodations for our own men, and if my first offer can not be accepted none other can be made.”

The artillery fired occasionally on trenches and wagons. There was no infantry firing during the day. General Lord Kitchener left for Cape Colony.

FEB. 23.—Until this date there had been no rain whatever and the sun was boiling hot, but now heavy rains set in and continued for four days, which greatly refreshed the entire army, after having been exposed to the subtropical sun for so many days. At about 7 a. m. the enemy’s reinforcements attacked Kitchener’s Kopje and the farm, from the south, most gallantly, making three separate attempts to capture them, but were each time repulsed, with a total loss of 102 prisoners and 154 killed and wounded. The British casualties were 8 wounded. This is one of the very few instances during the war where the British were on the defensive, and the Boers could now appreciate with what heroism they had been fighting throughout it.

The captive balloon ascended for the first time at 5.30 p. m. from the river bank near the advanced field hospital. The artillery at irregular intervals shelled the Boer trenches and wagons.

Lord Roberts sent a communication to General Cronje asking how many British prisoners and wounded he had in his laager. General Cronje replied "12 and 4, respectively; list enclosed." Lord Roberts answered: "Receive my best thanks for your letter; if you will send our wounded out of your laager and four of your own wounded, the latter shall be sent to Jacobsdal to the German Red Cross Hospital and released as soon as cured."

General Cronje accepted and an ambulance went in the evening and brought them out.

FEB. 24.—There was a little artillery firing on enemy's position. The balloon discovered four ammunition carts in river bed, which the 4.7-inch guns north of the river exploded.

The heavy rains had so swollen the river that the Boer ponies and oxen which had been killed in the river bed were floated down by the hundreds and lodged at different points opposite the British camp, causing an awful and sickening smell; it was omnipresent, and for three days, until they had all been cleared away, kept the army, especially those who were camped near the river—of which we unfortunately formed a part—in an almost constant state of nausea. What the smell must have been in the Boer lines, confined to the river as they were, can only be faintly conceived.

The water of the river, the only source of supply, became, of course, badly polluted. But strange to say, since that time up to the present date there have been only 126 cases of enteric or typhoid fever, and those of a mild type, developed in the whole command.

FEB. 25.—Sunday and no firing. The British trenches, which were dug at night, were getting nearer and nearer to the enemy's, and were now about 700 yards distant. One thousand mounted infantry arrived and were formed into two additional brigades under Brevet Colonel Le Gallais, Eighth Hussars, and Brevet Colonel Mahon, same regiment. The original two brigades were both under infantry officers.

The third and fourth brigades were formed entirely of colonials taken from the first and second brigades and others

which joined on this date. To give an illustration of the complex and different origin of the volunteer forces in South Africa I will give the organization of these two brigades.

Le Gallais's brigade:

Burmah Mounted Infantry.

Ceylon Mounted Infantry.

Grahamstown City, Cape Colony, Mounted Infantry.

Kitchener's Horse, Cape Colony.

Nesbitt's Horse, Cape Colony.

New South Wales Mounted Infantry.

Mahon's brigade:

New South Wales Lancers.

New Zealand Mounted Infantry.

Queensland Mounted Infantry.

Roberts's Horse, Cape Colony.

FEB. 26.—Three Vickers-Maxims and four 6-inch howitzers arrived and were placed in position with the other guns south of the river, making a total of 98 guns of all kinds, exclusive of the Maxim machine guns, which are not classed as artillery.

At 4.30 p. m. General French opened with all his artillery from the hills northeast of the laager and continued firing for about an hour.

FEB. 27.—At 3.30 a. m. the Royal Canadian Regiment, with some engineer troops on their right, supported by the first Gordon Highlanders and Second Shropshires, advanced from the trench on northern bank of river toward the enemy's intrenchments in two lines, the first with their rifles at the ready and the second line at 30 yards distance with rifles slung and carrying intrenching tools. The Canadians' orders were: First line to advance quietly until fired upon, when they were to drop down on the ground and return the fire; the second line, the moment the first became engaged, to start a trench, assisted by the engineers. A regiment was in the trench south of the river with orders to open fire when the Canadians did. The Gordons and Shropshires prolonged the line to the left, curving toward the front of the trenches and river.

The Canadians advanced across the 500 yards of intervening ground and when within 90 yards of the enemy's trench along the river were met with heavy fire from it and the river bed and, according to orders, lay down and returned it. They remained in this position until daylight, when the enemy displayed the white flag and about 700 came forward and

surrendered. Shortly afterwards the white flag was also displayed from the laager and General Cronje surrendered with his whole force unconditionally.

The prisoners numbered 4,010 men, of whom 185 were wounded, which, including 260 captured since the 18th, makes a total of 4,270 fighting men.

Of these 4,010 prisoners, 2,643 were from the Transvaal and 1,367 from the Orange Free State.

The artillery captured consisted of four 7.5-centimeter Krupps (3-inch) and two Maxims. The breechblocks of the Krupp guns were missing.

The majority of the rifles taken were Mausers, but I saw a number of Martini-Henry's of .45 caliber and some sporting rifles of .50 caliber.

There was a large quantity of rifle ammunition captured.

REMARKS.

The Boer laager was in a frightful condition, and the smell from the dead ponies and oxen was stifling. There were no doctors or medicines and the Boer wounded had been without any skilled attention whatever.

The women, wounded, and prisoners had been kept out of danger in chambers dug into the bank of the river, the sanitary condition of which I leave to the imagination. Their food was almost gone.

I do not know what history will say of these people, but personally, words fail me to express adequately my admiration for their tenacious and brave defense under the conditions in which they were placed.

The women were at once given safe-conduct by Lord Roberts to go anywhere they wished, the wounded immediately cared for by the British doctors, and rations distributed to all.

COMMENTS.

The Boer trenches were from 5 to 5½ feet deep and about 2½ wide at the top, broadening out as they reached the bottom to about 4 feet. Small chambers were hollowed in the sides at the bottom, in which the Boers seemed to have lived while occupying the trenches, as they were filled with pots, kettles, etc.

The trenches were for a short distance continuous, usually about 20 yards, then would come at short intervals separate

holes to contain two or three men; they were not covered in any way. Their trail resembled a writhing snake, which lessened the danger from enfilade fire. It would be easy enough to get men into such a trench, but a thundering big job if you wanted to get them out again to make a counter-attack.

They destroyed the power of offensive or aggressive action; and the lack of continuity, caused by the separated and distinct holes, made communication extremely uncertain and hazardous. Their only merit was to me their irregular trace; in all other respects they simply demonstrated how a trench should not be made, for from the moment they completely and comfortably got into them the Boers' chance or even thought of counter-attack or initiative was gone.

The Boers are splendid on the defensive, but do not seem to consider offensive movements as part of their proper tactics; for example, the long line of communication of the British army, which finally reached from Bloemfontein to the railroad at Kimberley, a little over 100 miles, was only twice disturbed, once at Waterval Drift and once when a small convoy of 20 wagons was captured between Jacobsdal and Klip Drift. Had they been bolder and more aggressive, with their mobility, they could have caused the British endless anxiety and annoyance on their advance to Bloemfontein.

Lord Roberts correctly appreciated this weakness on the part of the enemy and successfully advanced, simply turning every position he found defended and proceeded on his march, letting his rear practically take care of itself, knowing it would not be molested. The leaving of the convoy, which was the main supply park of the army, at Waterval Drift with an escort of only 200 mounted infantry betrays a weakness of organization and even ordinary precaution which might under other conditions prove fatal to the British.

If ever a people or nation exemplified the phrase "brave to a fault" it is the British. If they were less brave there would have been many less faults and more victories in this war.

When the army concentrated at Ramdam the supposition might naturally have been that it would move southward from there along the Riet River and threaten the enemy's positions along Orange River, especially those at Norvals Pont and Bethulie which covered the bridges, thus opening up an entrance into Orange Free State for the forces along

the northern border of Cape Colony and gaining possession of the railroad for a concentrated advance along it to Bloemfontein.

On arriving at Jacobsdal, the army had moved from Modder River station on three sides of a square and menaced Magersfontein, which Cronje occupied, Bloemfontein, and the enemy's army around Kimberley.

That the enemy was completely taken by surprise by this movement is amply testified to by the fact of their hastily abandoning wagons, stores, and immense quantities of ammunition at Magersfontein.

The Boers had become so wedded to the conviction that the English could or would not leave the railroad, that Lord Roberts threw them into such a state of paralysis by his strategy, that they have not even yet fully recovered.

Lord Roberts's decision to make no infantry attack across the open plain against the enemy in the river bed and trenches at Paardeberg, was, in my opinion, a wise one, as the fight of the 18th had proven that even if successful his forces would have been decimated. He had little to fear from the enemy's reinforcements, because he would then be on the defensive and have had an opportunity of showing them, which was done on a small scale on the 23d, what is meant to attack in the open an enemy armed with the modern magazine rifle and intrenched, a thing which the British have had to do throughout the war.

The English artillery had such a tremendous preponderance in numbers over the Boers, who, in fact, rarely used theirs, that it is impossible to make a fair comparison on their respective efficiency. The Boer smaller Creusot and Krupp guns are, I believe, rapid-firing ones; the English guns are not.

The field and horse artillery use shrapnel only, with an extreme effective of not over 3,000 yards; they have no common shell, the wisdom of which I must leave to some one better qualified than I to comment upon.

The lyddite shell has proven one of the distinct disappointments of the war. It has no effect whatever against intrenchments. On exploding, which it almost always does as far as I could judge, it makes only a small hole about a foot deep and 2 feet in circumference and breaks into few fragments. Against the armor of a battle-ship, for which use they are designed mainly, I have no doubt but that they would be very

effective and the poisonous gases confined in a narrow and closed space would be destructive, but in the open air they are too quickly dissipated to do any injury.

The Vickers-Nordenfelt automatic gun used by the Boers has a strangely demoralizing effect upon an enemy. It is an effective little weapon and the British soldier dreads it more than any other gun the Boers have. Its "pom, pom, pom" in rapid succession and unknown number is a great strain on the nerves. It is very accurate.

Until the 26th of February, when three of them joined Lord Roberts's command, none of the British forces had this gun.

They opened fire on the enemy's laager early in the afternoon, the other guns having been practically silent during the day, and even when they did fire elicited no response of any kind from the enemy, but the moment the "pom, pom" began the Boers woke up in the most astonishing manner, and from every part of their lines opened fire. It was as if an electric spark had been dropped into a magazine.

This tickled the British soldiers immensely, for they had "been there" so often themselves.

SMOKELESS POWDER.

In sending my impressions upon the effect of smokeless powder in battle to the War Department is something, I fear, "like carrying coals to Newcastle," as it must have much data on file gathered from the Spanish and Philippine wars regarding the subject. Still I feel I must in duty risk repetition or contradiction and embody them in my report.

The use of this powder by both belligerents has necessitated, I believe, a greater change in modern battle tactics than even the increased range of the small arms; one can locate the artillery by the flash, but infantry fire beyond 500 yards can only be heard and felt, not seen. This fact increases the difficulty of the attack far more than the defense, the latter being stationary and carefully hidden, while the former is of necessity continually in motion. The fact that the artillery of its own army can seldom support it so efficiently as formerly further increases the difficulties of the attacking infantry.

The artillery, in fact, labors under precisely the same disadvantages as the infantry, but to perhaps a greater extent on account of the greater distance at which it is engaged,

while it is in addition often impossible to tell how close the attack is to the defenders' line.

To locate the enemy, balloons and powerful telescopes must be used, while to insure the harmonious working of the different arms extensive use of signaling must be made from all parts of the field, even, if possible, from the firing line itself.

The balloon with the British army has been of inestimable value to it. It usually ascended about 2,500 yards from the enemy's line and secured valuable information, especially for the artillery. What it is made of I do not know and can not find out, but its practical workings have been a great success. The Boers fired on it constantly, but never injured it sufficiently to compel its descent. It was attached to a wagon drawn by oxen.

Lord Roberts on the 14th of February issued the following order to the army:

23.

FIELD ARMY ORDERS, SOUTH AFRICA.

RIET RIVER, *February 14, 1900.*

2. FLAG OF TRUCE.—The sacredness of the white flag having been so frequently infringed by the enemy during the present war, the troops are reminded that they are not in any way bound to receive the bearer of a flag of truce during an engagement.

The bearer of a flag of truce should be unarmed, the side from which he proceeds should have halted and ceased firing, and unless it is clear that the flag of truce is being used legitimately for the purpose of entering on an amicable arrangement, the bearer should be signaled to retire, and if he does not obey the signal he should be fired on.

By order,

W. F. KELLY, *Colonel,*
D. A. G. for Chief of Staff.

CASUALTIES.

The total British casualties from the 11th to the 27th of February, including those of the 18th already given, were:

Killed: Officers, 17; men, 251. Wounded: Officers, 95; men, 1,272. Missing: Officers, 11; men, 206. Prisoners: Officers, 2; men, 13.

FEB. 28.—The army remained inactive at Paardeberg Drift. The three batteries of the ninth division joined it, augmenting the artillery to 116 guns.

MARCH 1.—The army moved to Ofontein, the cavalry going about a mile beyond.

MARCH 2-6.—The army remained at Osfontein, the cavalry and mounted infantry reconnoitering the enemy's position about 3 miles in front.

On the 6th the Guards Brigade arrived from Klip Drift. On the 3d the total horses numbered 12,995; mules, 9,900.

On March 6 the army had the following rations: 1,100,000 three-quarter rations biscuit and 50,000 preserved meat and 700,000 groceries, but forage for only two days for its advance, though much was left at Osfontein and sent back for from time to time as wagons became available.

The total number of the men on March 6 fed by the supply department, including rear guards, correspondents, etc., was, Europeans, 33,958; natives, 2,668.

COMBATANTS.

The combatants numbered 1,033 officers and 28,453 men, which does not include the fifteenth brigade, 85 officers, 2,909 men, which joined on the 9th. Total combatants on the 9th, 1,118 officers, 31,362 men.

	Officers.	Men.
Cavalry	108	2,694
Mounted infantry	238	4,652
Artillery	115	3,100
Engineers	37	770
Infantry	540	19,439
Details, Naval, etc.	39	634
Headquarters	49	73
Total noncombatants	89	935
Grand total	1,215	32,297

On March 4 the regular mounted infantry and colonials were redistributed as follows:

Brevet Lieutenant Colonel Anderson, 2 regular and 5 colonial regiments.

Lieutenant Colonel Martyr, 5 regular and 2 colonial regiments.

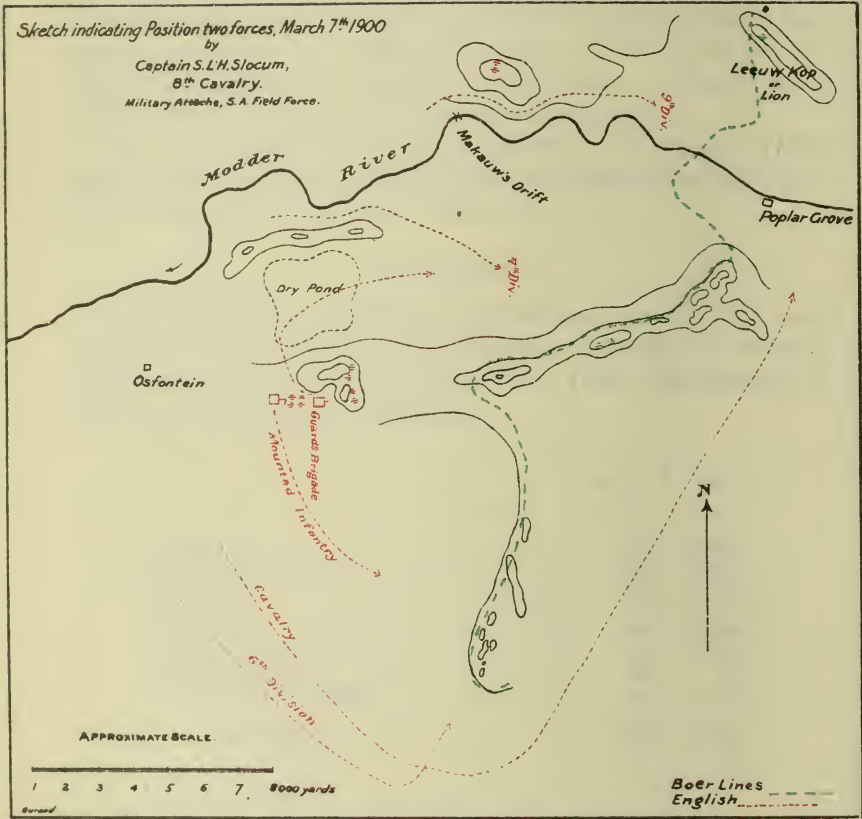
Colonel Ridley, 2 regular and 4 colonial regiments.

Brevet Lieutenant Colonel Le Gallais, 2 regular and 4 colonial regiments.

About 850 colonials had joined since February 25.

Sketch indicating Position two forces, March 7th 1900

by
Captain S.L.H. Slocum,
8th Cavalry.
Military Attaché, S.A. Field Force.



MARCH 7.—The army advanced, the cavalry division around enemy's left advancing on Poplar Grove; the ninth division on north bank of river; the sixth division to the southeast attacking and turning enemy's left; the seventh and Guards Brigade in center.

The enemy, finding their position, which extended from Poplar Grove southeast for about 11 miles along a ridge, turned on the left by the sixth division and the cavalry division moving around that flank toward Poplar Grove, the right threatened by the ninth division and the seventh, with the Guards Brigade, advancing on their center, retreated hurriedly, abandoning one gun to the ninth division. The Boers numbered, I estimated, between 4,000 and 5,000.

The cavalry division, ordered to advance at 2 a. m., waited until 3.30, and after proceeding a short distance halted one and one-half hours, "for daylight," General French said. The sixth division, which left its camp at 5 a. m. and had the same distance to march as the cavalry, got in advance of it and had to halt while the cavalry went forward. It was a beautiful starry night, and the guide with General French, an American, was thoroughly familiar with the ground, having been over it three times for the very purpose of selecting a route for the cavalry.

The army camped at Poplar Grove. Lieutenant Colonel Gurko, Russian army, and Captain Thomson, Dutch army, attachés with the Boer forces here, surrendered themselves to the British; their wagon breaking down, they had remained with it and were surrounded. They were two days later sent to Cape Town and allowed to proceed to Delagoa Bay and Pretoria.

The British casualties were 50 killed and wounded.

MARCH 8.—Cavalry division from Poplar Grove to about midway between Roodepoort Farm and Abraham's Kraal; sixth division, Poplar Grove to Roodepoort Farm; seventh and ninth divisions remained at Poplar Grove.

MARCH 9.—Army remained stationary. The fifteenth brigade joined from Jacobsdal.

On this day the army had twenty and one-half days' half-rations biscuit, and thirty days' half-rations groceries, and about three days' fresh beef.

Communications to the rear with the railroad were abandoned, a small depot being left temporarily at Osfontein.

MARCH 10.—The army advanced on three roads, as follows:

Left column.—General French with one cavalry and one mounted infantry brigade and the sixth division along the river, destination Baberspan.

Center column.—Headquarters, one brigade of cavalry and two of mounted infantry, with the ninth division and the Guards Brigade, howitzer batteries and naval guns, reserve ammunition column and supply park, destination Driefontein.

Right column.—Seventh division and one cavalry brigade and one mounted infantry brigade, destination Petrusberg.

The enemy, I confidently believed, expected the British to advance along the river and strike the railroad north of Bloemfontein near Brandfort.

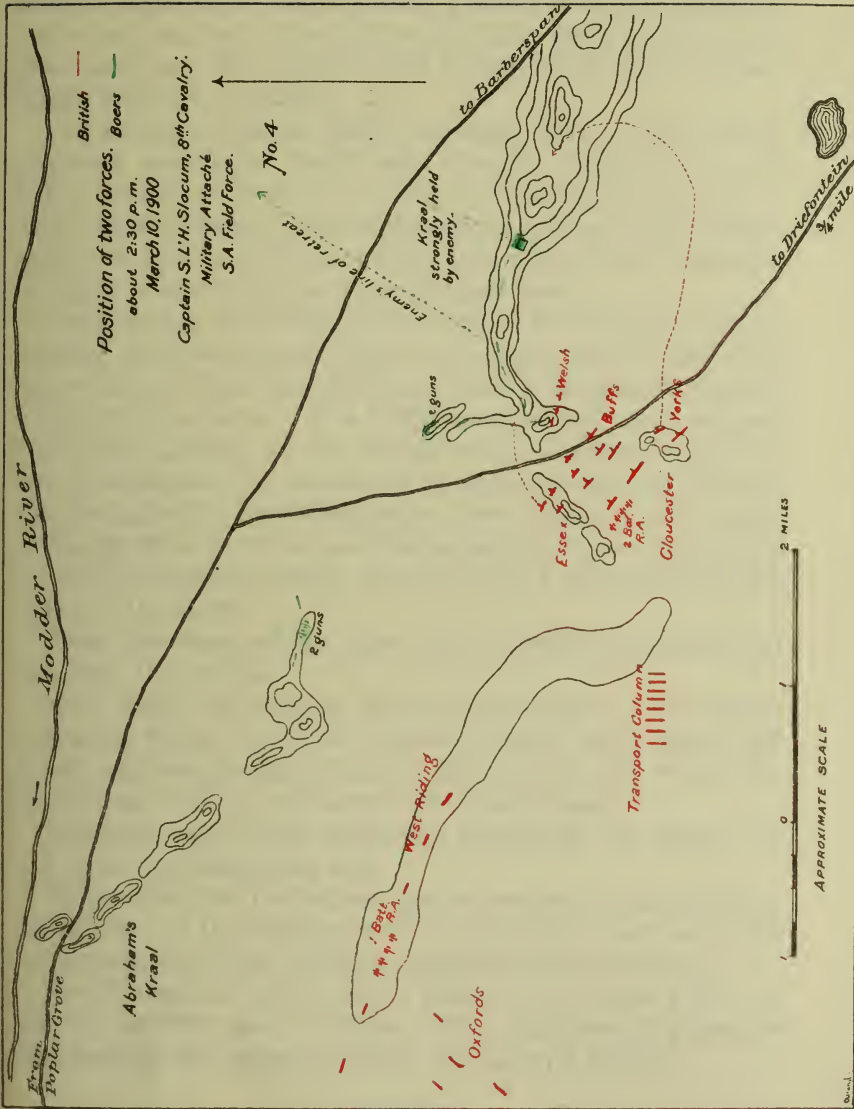
The left column found the enemy occupying strong positions extending from Abraham's Kraal to Driefontein.

BATTLE OF ABRAHAM'S KRAAL OR DRIEFONTEIN.

At 9.30, upon discovering that the Abraham's Kraal position was strongly held, the sixth division halted while the cavalry made a reconnoissance, the horse artillery meanwhile becoming engaged. General Kelly-Kenny decided to march direct on Baberspan, leaving the river road, and so turn the left flank of the enemy's position, the cavalry sweeping around still farther from the south. This movement exposed the flank and baggage column to attack either from Abraham's Kraal or Modder River; therefore a rear guard of two regiments and a field battery was left to watch these positions, while the remainder of the division pushed forward. In this advance was encountered a treble line of kopjes, the first little more than a slight rise in the ground, but gradually rising to a higher ridge close to Baberspan.

The enemy divining the purpose of this march, and with his usual mobility, anticipating the slow-moving columns of British infantry and field artillery in the occupation of these kopjes, established himself strongly across their path, leaving only two guns and a small escort on the southern slope of the Abraham's Kraal kopjes.

The Welsh regiment had to advance in the center, with the Yorkshires and Essex regiments on the right and left respectively. Two regiments, the Buffs and Gloucestershires, were held in reserve with two field batteries behind the center. With the assistance of a few rounds of artillery, the first line



of kopjes was carried by the Welsh regiment with little opposition. From this point, however, it was evident that a serious engagement was at hand, a heavy rifle fire showing the enemy to be in strength, while their guns shelled with great accuracy the infantry and wagon train; few of their shells, however, bursting.

The infantry pushed slowly forward, half of the Welsh regiment established itself firmly on the slopes of a small kopje jutting out from the center of the enemy's second position; the remainder of the regiment, supported by the Essex regiment, held a position to the left, while the Yorkshires occupied a small kopje to the right and rear.

The infantry now came under a heavy cross fire, the enemy holding positions thrown back to the right and left from the center kopje; their four field guns and a Maxim-Nordenfelt firing with precision. The Buffs were ordered up to support the half regiment of the Welsh on the center kopje; the Essex reenforced the remainder of that regiment on the left. On the right the Yorkshires were drawn in from their kopje and sent off to work around the enemy's left, two companies of the Gloucesters taking their place and advancing on the right of the Buffs.

These movements took place under cover of well-directed fire from the artillery.

Now came the turning point of the action. The Essex regiment, fixing bayonets, rushed forward with great gallantry against the right flank of the center kopje, which the enemy had held so obstinately all the afternoon.

The Buffs and Welsh regiments supported the Essex and the enemy's center gave way.

Meanwhile the Yorkshires had succeeded in establishing themselves on the high ground to the enemy's left and, with the assistance of the artillery, compelled his retirement.

The British casualties were 6 officers and 52 men killed, 16 officers and 321 men wounded. They captured 22 prisoners and buried next morning 102 of the enemy's killed.

COMMENT.

Had the sixth division simply remained in the enemy's front without pushing home its attack and waited until the center column came up, which in following the order march of the day would naturally have turned the enemy's

left; he would, I believe, have retreated with very little opposition.

The sixth division by this flank movement had come in close touch with the center column and camped on the battle-field, near Driefontein, instead of Baberspan, as originally intended.

The right column entered Petrusberg without opposition.

MARCH 11.—Sixth division, Driefontein to Kaal Spruit farm; center column, Driefontein to Aasvogel Kop; right column, Petrusberg to Driekop, from which place it sent its cavalry brigade to join center column. No enemy was encountered by any of the columns.

MARCH 12.—Sixth division, Kaal Spruit to Venters Vallei; center column, Aasvogel Kop to Venters Vallei. No enemy was encountered. They were seen in position just east of Salisbury plain on center road, but retired without firing when they found their flank again turned.

The cavalry division was concentrated at Venters Vallei and advanced to the south of Bloemfontein, occupying the kopjes immediately southeast of it. A few shots only were exchanged with the enemy who was in full retreat northward.

Right column remained at Driekop, waiting to escort a convoy from Osfontein.

MARCH 13.—Lord Roberts and his headquarters, accompanied by the military attachés, proceeded in advance of the infantry, via Leeuwberg, to Bloemfontein, which was entered without opposition.

A portion of the cavalry proceeded to a point on railroad about 5 miles north of Bloemfontein and cut the railroad.

Sixth division, from Venters Vallei to Brand Kop; right column, seventh division, Driekop to Panfontein; ninth division, center column, Venters Vallei to Leeuwkop.

MARCH 14.—Sixth division, Brand Kop to Bloemfontein; seventh division remained at Panfontein; ninth division, Leeuwkop to Bloemfontein.

MARCH 15.—Seventh division, Panfontein to Driekloof.

MARCH 16.—Driekloof to Woodland.

REMARKS.

Bloemfontein lies in a plain surrounded by low hills and is defended—or really not defended—by one old fort on the south, almost within the city limits, which was built by the

British in 1846 when they occupied the country, and another to the north, not yet completed, wholly useless in construction, and commanded by other hills within artillery range.

The Boers evidently did not expect the British to arrive hurriedly.

The railroad station was found uninjured in any respect, and in the yards were five engines in perfect order and about sixty flat and thirteen passenger cars. In the roundhouse were found eight engines undergoing repair. The foreman, who is an Englishman, as are many of the mechanics, informed me that these latter engines could be put on the road within eight days.

The road is single-track; gauge 3 feet 6 inches, same as the Cape Colony and Transvaal.

The roadbed was found to be intact between here and Orange River and a train went through on the 15th.

The public papers and records, even the last official telegram received by the President, were found intact and uninjured in the public offices.

That the Boers left suddenly is further evidenced by the fact that there were found in a safe in the Government House some diamonds. The President and most of the government officials had fled, and the mayor of Landdrost surrendered the city.

THE THEATER OF OPERATIONS.

The country is generally open and flat, but here and there the dreary scorched surface of the plain is relieved by isolated kopjes and short stony ranges of hills. It is almost destitute of trees, except along the river banks, which have frequently clusters of willow and mimosa.

The annual rainfall is only about 22 inches; most of the water, however, is rapidly carried off by the deep-cut riverbeds, which speedily drain all moisture from the vicinity.

The country is splendidly adapted for the movement of a large army, allowing it to march on a wide front and the wagon trains in many columns regardless of roads. The great difficulty, however, is the scarcity of water, which is found only in the rivers and collected at the different farms in dams. The supply in these dams is not often plentiful and is of uncertain quality.

The kopjes average from 100 to 200 feet in height and are covered with iron-stone boulders, some of which are immense, and form excellent defensive positions.

The openness of the terrain permitted the British, when they desired, readily to turn these kopjes, and in every instance the Boers retreated when they found this had been done.

Grazing for the animals was very limited.

The entire lack of offensive action on the part of the Boers gave great freedom to Lord Roberts in his flanking movements, for he knew the enemy would not attack his rear.

To guard his line of communication via Jacobsdal and Klip Drift one brigade of infantry was stationed at each point.

Convoys were escorted by mounted infantry. The weather was generally intensely hot, though the nights were cool.

TRANSPORT.

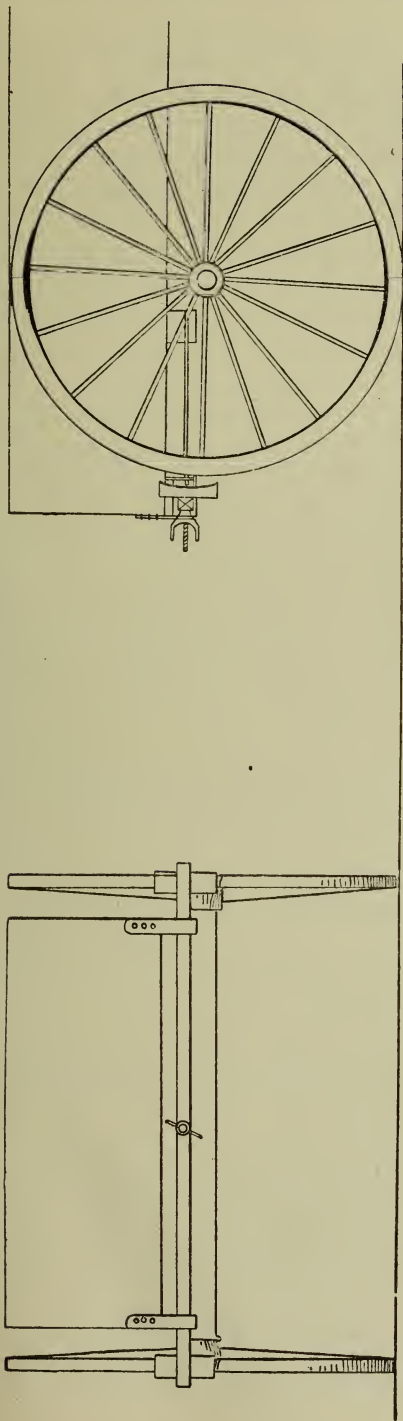
The general supply park was composed of ox wagons; the regimental transport was of mule wagons.

The ox wagons are divided into companies of ten sections of ten wagons each, making 100 wagons per company. Each company is commanded by a captain of the army service corps and each section by a subaltern or noncommissioned officer. Each ox wagon with load of 6,000 pounds is hauled by 32 oxen, with native drivers and assistants, three men altogether, one to lead the oxen, one walking by their side with a long whip, and one on the box.

During this difficult and trying march for animals, I have become convinced that ox transport is by far the best for this country. The oxen require no forage, subsisting by grazing, and though slow, are relatively sure. They only travel, unless by special order of the chief of staff, at night; during the day they are allowed to graze. They can make from 16 to 18 miles day by day.

One ox wagon with span of 16 oxen, including distance between wagons in column, takes up a space of 76 yards.

Besides the ox wagons, of which the army has now about 400, there are the mule wagons of the general transport, from which were allotted for the march to each regiment, 7, and to each division, the above-mentioned inclusive, 92 wagons. Each division and brigade has a transport and supply officer. Each division officer controls the transport and supply of his division.



Sketch of Colonial Wagon Brake used by the British Army in South Africa.

Each four-wheeled vehicle is drawn by ten mules; two-wheeled, by six mules. The average load of four-wheeled wagons is 3,000 pounds; of two-wheeled, 1,500 pounds. The four-wheeled vehicles are designated buck and general-service wagons, and the two-wheeled Scotch carts.

The buck wagon, weight 2,500 pounds, has vertical sideboards of about 1 foot only in height, the sideboards from that point sloping outward at an angle of about 45° for 1 foot. They have no bows. It is impossible to pack these wagons properly, and the result is that the loads are often tumbling all over the road. Our six-mule army wagon is infinitely better in every respect.

The general-service wagon is almost identical with our escort wagon, weighing 1,708 pounds. It is used also without bows, the army service people stating that the bows made in England were always breaking, so they abandoned their use.

All these wagons have on them what is called the colonial brake, the best army-wagon brake I have ever seen.

All the mules are small, about the size of our pack animals and come from Italy, Spain, Argentine Republic, and New Orleans. The British have used on this campaign very few pack animals of any kind.

SUPPLIES.

The following table of rations and forage is the allowance of the troops in the field in South Africa.

The daily ration is as follows:

MEAT.—One pound fresh or preserved.

EQUIVALENTS.—Cheese, 2 ounces, equals 4 ounces fresh or 3 ounces preserved meat; bacon, 4 ounces, equals 4 ounces fresh or 4 ounces preserved meat; maconochies, equals ration of meat and vegetables.

Supply of fresh meat may be increased when possible, by special order of commander in chief, to $1\frac{3}{4}$ pounds.

BREAD.—One and one-fourth pounds fresh bread or 1 pound biscuit, flour, or meal.

When flour or meal is issued, seven cakes of patent yeast will, if available, be issued per 100 pounds of flour.

COFFEE.—Two-thirds ounce coffee or $\frac{1}{3}$ ounce tea or 1 ounce chocolate; 3 ounces of sugar, $\frac{1}{2}$ ounce of salt, $\frac{1}{8}$ ounce of pepper.

VEGETABLES.—One ounce of compressed vegetables, or $\frac{1}{2}$ pound of potatoes or other fresh vegetables, or 2 ounces split

peas, or $\frac{1}{4}$ pound onions, or 2 ounces rice, or 1 tin pea soup (Erbswurst).

OCCASIONAL ISSUES WHEN AVAILABLE.—Lime juice, $\frac{1}{2}$ ounce ($\frac{1}{10}$ gill), when fresh vegetables are not obtainable.

Spirits, $\frac{1}{8}$ gallon ($\frac{1}{2}$ gill), when notified in army orders.

Jam, $\frac{1}{4}$ pound tin (about 4 ounces), but not oftener than three days per week.

Tobacco, in quantities not exceeding 1 pound per man a month on payment of 1 penny per ounce.

FORAGE.—The daily ration will be: Horses, 12 pounds; mules, 8 pounds.

Two pounds of hay may be substituted for every pound of grain, but not in excess of 8 pounds per diem.

SUPPLIES FOR TROOPS AND ANIMALS PROCEEDING BY RAIL.—Troops and animals entrained at coast ports for conveyance to advanced posts will, in addition to the emergency ration carried by the soldier, be furnished with three days' rations on the following scale:

Troops.—One pound meat, 1 pound bread or biscuit, and a full grocery ration.

Animals.—Grain: Horses, 9 pounds; mules, 6 pounds. Bran: Horses, 6 pounds; mules, 6 pounds. Salt: Horses, $\frac{1}{2}$ ounce; mules, $\frac{1}{2}$ ounce.

RATIONS FOR NEWSPAPER CORRESPONDENTS.—Rations may be issued on repayment to newspaper correspondents duly authorized to accompany the troops in the field. They may also draw rations for one servant and one horse.

The authorized rate of stoppage will be 4 shillings per man's ration and 5 shillings per forage ration. Payment for a month in advance will be made to an army paymaster, who will notify on the receipt the number and description of the rations paid for.

Previous to the advance there had been accumulated, at Orange River, 2,000,000 full rations and 1,000,000 forage rations.

At Enslin and Graspan the same quantities.

At Modder River Station, 100,250,000 rations [thus in report; evidently an error.—Ed.], and 400,000 forage rations. A large quantity of these was for the resupply of the Kimberley garrison and inhabitants.

The supplies for the army are now drawn from Port Elizabeth.

The jam ration is greatly appreciated by the men, as is also the lime juice, both of which the medical officers say are health preservers.

Both the transport and supply departments—our Quartermaster and Subsistence—are in the British service consolidated in one corps, designated “the army service corps” under one general chief. It has worked during this difficult campaign most admirably. The same officer in collecting supplies, collects the transport to haul them and makes all arrangements for their shipment, thus obviating friction, confusion, and unnecessary delay.

I consider the army service corps one of the best things I have seen in the British army.

FIELD TELEGRAPH.

The field telegraph has been admirable. It has advanced usually in rear of the cavalry, a cable being used which was picked up by another section and ordinary wires and poles used.

The aerial line was working before the infantry approached. In camp each division was connected by cable with headquarters and each brigade with its division.

Headquarters have been in communication by it with the base on the railroad throughout.

WIRELESS TELEGRAPHY.

This has been a failure. The poles were not long enough, and kites and balloons which were tried were found uncertain and unsatisfactory.

There were many stations established above De Aar along the railroad, but after many attempts all were abandoned. It was hoped by the engineers that with their 30-foot bamboo pole they could transmit 10 miles, and by splicing the poles to 75 feet in height, 100 miles, but it would not work.

SIGNALING.

The signaling by search-light from permanent camps has been very successful. In cloudy weather, when the heliograph could not be used, it has been the only manner of communicating with besieged places.

The heliograph has been in general use by both armies, and has proven invaluable to the British, and equally so, I suppose, to the Boers. In the British army each brigade has its

heliograph and sends to its division headquarters, which transmit in same manner to army headquarters. These messages were constantly coming in during action.

Whistles were used by all officers, and the trumpet was never heard. When too distant for use of whistles, flags were used. The night-signal lamp or lantern was used generally and with great success.

Throughout the campaign, communication between different units has been excellent by these different methods, and it was rarely that a message had to be sent by a mounted man. The telephone has not been used.

TOTAL CASUALTIES.

Up to the 13th day of March, the total casualties were: Killed: Officers, 23; men, 312. Wounded: Officers, 119; men, 1,662. Missing: Officers, 11; men, 222. Prisoners: Officers, 2; men, 14.

THE PRESENT OUTLOOK.

The signs would now seem to indicate that the majority of the Orange Free Staters have practically given up.

The President is at Kroonstad trying to rally around him a fighting force.

The Free Staters south of here are coming in daily and surrendering their arms in reponse to Lord Roberts's proclamation, hereunto affixed.

The Transvaal Boers seem determined to fight it out.

Should the Boers change their tactics and assume the offensive, as they may possibly do from now on, Lord Roberts will find many difficulties before reaching Pretoria.

General Buller is in Natal, with about 30,000 men, including the 9,000 men of the Ladysmith garrison, and is ready to advance into the Transvaal from that flank when Lord Roberts directs. I understand, but am not sure, that a force will also operate from the railroad from some point south of Mafeking.

Lord Roberts's force will be reenforced by some of those from the south; one division of infantry and three batteries of field artillery, three fresh regiments of cavalry, four 9.8-inch siege guns and four 6-inch naval guns mounted on railway trucks.

I have taken photographs of Boer trenches, transportation, etc., but it is impossible to have them printed now. When they are, I will forward them with the request that they be appended to this report.

Very respectfully,

S. L'H. SLOCUM,
Captain, Eighth Cavalry,
Military Attaché, South African Field Force.

The following is the decision given personally by General Sir Redvers Buller to-day:

The general officer commanding is quite willing that the military attachés should follow the general course of the operations along the main line of communication, and will give every facility for their doing so, but, in the event of subsidiary operations being undertaken, he can not permit them to take part in them, nor can he assume the responsibility of their subsistence or security. In making this decision he is adhering to the practice which has been followed in every case when military attachés have been accredited to watch the operations of European armies in the field.

By order,

GEO. HERBERT,
Colonel, Care of Military Attachés.

ESTCOURT, *January 9, 1900.*

REPORT No. 3.

BLOEMFONTEIN, SOUTH AFRICA, *April 18, 1900.*

ADJUTANT GENERAL, UNITED STATES ARMY,
Washington, D. C.

SIR: I have the honor to report that the following additional information in reference to the operations of the cavalry division under General French, in its relief of Kimberley, which was not obtainable at the time my report No. 2 was made, has just been furnished me.

When General French left Klip Drift, on February 15, his force consisted of 4,370 cavalry and 1,210 mounted infantry, with seven batteries of royal horse artillery.

No wagons were taken, the men carrying on their saddles two and one-half days' supplies.

A few ambulances accompanied the column.

The cavalry and horse artillery had, when they began their advance from Ramdam on February 12, a total of 5,027 horses, of which they lost from all causes, killed, abandoned, etc., from that date to February 28, 1,841.

All mounted organizations will have now in a few days, from the remount depots, their full complement of horses.

The most important military events which have occurred since the date of my last report or previous thereto and of which I had no official knowledge at the time, in the Orange Free State, are the following:

General Gatacre, with the third division, crossed the Orange River at Bethulie on February 15 without opposition. The railway bridge had been destroyed, but the enemy had not time, in their hurried retreat on learning of the occupation of Bloemfontein by Lord Roberts, to destroy the wagon bridge which was found intact.

General Clements, with about 3,500 infantry, 250 cavalry, 1,500 mounted infantry, and two field batteries, crossed at Norvals Pont on the same day. The bridge, the only one, had been destroyed, and the force crossed on a pontoon bridge. A low level bridge for the railroad was finished on March 27, and the first train crossed that day. On the morning of March 15, a column of about 2,000 men with four guns proceeded south from here by rail without encountering the enemy, and at Springfontein Junction on the following day established communications with General Gatacre, and later on the same day with General Clements at Prior Siding.

March 18 the enemy destroyed the railway bridge across the Modder River at "The Glen," about 13 miles north of Bloemfontein.

The British, though occupying Bloemfontein since the 13th, had neglected to guard this bridge, though on the direct line of their future advance. Subsequently, on March 22, the the Guards Brigade occupied "The Glen." A low level bridge has been built and a train is now running daily to that point from here.

On March 23 an unfortunate accident occurred there. I will briefly describe it.

* * * * *

The commanding officer of the brigade, accompanied by the colonel of the Coldstream Guards and two other officers with one soldier, started out on a foraging expedition north toward

Karree Siding. After proceeding some distance they saw four mounted Boers, and the commanding officer said, "Come, let's round them up." Result, one officer killed—not the commanding officer—and all the rest of the party wounded.

In consequence of this affair and others of similar kind, Lord Roberts on April 1 issued the following order:

PRECAUTIONS.

The Field Marshal, Commanding in Chief, desires to impress on all ranks the necessity of observing at all times proper military precautions. We are occupying a country the inhabitants of which may appear to be friendly at present, but any reliance on their good will would be misplaced, and as long as a state of war continues it is essential that the rules which experience has shown to be necessary to guard officers and men from sudden and unexpected attack should be strictly enforced. Lord Roberts directs special attention to the needless risk which individuals incur who cross the outpost line, either singly or in small parties, without being ordered to do so, or who carry out such duties as foraging, reconnoitering, or signaling in a slack and unobservant manner. We are in the presence of a watchful enemy, to whom every turn of the ground is familiar, and neglect of this order is sure to bring with it its own punishment. It must be further borne in mind that officers and men who become ineffective through their own carelessness are guilty of an unsoldierly act.

MARCH 25.—It being learned that a large force of the enemy had come down from Kroonstad, it was deemed necessary to occupy the kopjes around Karree Siding, but the enemy forestalled this move and on the 27th the hills around Karree Siding were reported held by them. On the following day the cavalry division and a brigade of mounted infantry with the seventh infantry division concentrated at "The Glen." On the next morning the cavalry made a detour around the right of the enemy's position and the mounted infantry around the left, while the infantry advanced toward the center at 10 a. m., meeting with a stubborn resistance. At 4 p. m. the cavalry artillery opened on the rear of the enemy's position, which he immediately abandoned, and retreated toward Brandford. The seventh division then took the Hills, which it still occupies to-day. The casualties were:

	Killed.	Wounded.
Officers.....	1	10
Men.....	19	154

MARCH 31.—A column consisting of two regiments of cavalry, the Household Cavalry and Tenth Hussars, with about 1,000 mounted infantry and two batteries of horse artillery, were retreating from Ladybrand and Thaba Nchu, having found the enemy in strong force. From the latter place it was virtually a pursuit to Waterval Drift, which they reached on the night of the 30th, crossing the Modder River and camping about 1,500 yards from it.

At about 6 a. m. the enemy opened fire with artillery from the ridge east of the camp, and rifle fire commenced from the bed of the Modder River. The wagons were quickly started out on the Bloemfontein road toward the donga or dry spruit. The two batteries moved off in column a short distance behind the wagons and a little to the right of the road, Roberts's Horse (mounted infantry) moving parallel to them on the left. There were no mounted men in advance of the wagons. The enemy had occupied the donga at the crossing before daylight, about 450 of them, I should say.

The leading wagons marched right into their arms, and were taken possession of without a warning shot.

The enemy directed the leading wagons to pass on across and give no sign, but in a short time the crossing became blocked and the entire train halted. In the meanwhile the leading guns continued on to the crossing, and were at once surrounded by dismounted Boers, and the drivers ordered to dismount. Major Taylor, commanding the leading battery, managed to warn the rear one. As soon as the enemy saw this he opened fire. Under a blaze of fire four guns of the rear battery and one of the leading trotted clear and came into action on the left, Roberts's Horse rallying on them.

It was here that the nucleus of the front was formed which saved the whole force from disaster.

Their losses were severe for a few minutes, but the gunners stood manfully to their pieces, and, aided by the dismounted fire of Roberts's Horse, commenced to keep down the fire from the donga. In the meantime one company of mounted infantry started north to get around the right flank of the enemy in the donga, but were met by a heavy fire from the north, to which point about 100 of the enemy had gone on seeing them advancing in that direction. They retreated south and joined the others.

The remaining mounted infantry and the cavalry galloped around the left flank to the southwest. These were pursued for a short distance by a large party of the enemy, about 3,000, who had come up at the close of the action. These fell back when they saw the ninth division, about 4 miles distant, coming from Bloemfontein as reinforcement.

After waiting until the cavalry and mounted infantry had gotten clear, the five guns which were in action withdrew.

The action of these gunners was magnificent. In the face of a bitter fire at short range they stood by their pieces until of the five gun groups there were only ten men and one officer left unwounded. Then, with the five horses left and manual haulage, they dragged the guns out of action. The Boer forces numbered, I should estimate from the many accounts told me, at first about 1,000 men, and, with the 3,000 which arrived near the close of the action, 4,000 men all told.

The British casualties were:

	Killed.	Wounded.	Missing.
Officers -----	3	15	17
Men -----	9	108	413

There were captured about 100 wagons, 7 guns, and about 700 rounds of ammunition for them.

While Lord Roberts's army has been inactive here, waiting for very necessary supplies, remounts, etc., the enemy has been operating in the east flank and southward toward Orange River.

The town of Wepener, which is garrisoned by a force of about 1,500 men, is surrounded by the Boers, but is holding its own.

Wepener lies close to the Basutoland border. Basutoland is under British protection, a resident governor being at Maseru.

The Boers dare not cross the frontier, knowing they would be attacked by the natives, and the British can not on account of promises made when the Basutos appealed to them for protection against the Boers at the time the protectorate was established.

The third division is now marching from Bethanie station toward Wepener, as is also the eighth division from Springfontein.

APRIL 3.—General Gatacre occupied Bethanie and sent out 400 men to collect arms from the inhabitants under the terms of Lord Roberts's proclamation. On returning, this force was attacked by about 2,000 of the enemy at Mozars Hoek, about $4\frac{1}{2}$ miles east of Reddersburg, and after a fight they surrendered on the 4th, though a few mounted infantry managed to escape. The prisoners taken numbered about 300. On the receipt of this news Lord Roberts relieved General Gatacre from command of the third division and ordered him to London, General Chermiside being promoted from command of the fourteenth brigade to that of this division April 6.

Lord Methuen captured, near Boshof, a small party of the enemy, 63 men, who were found afterwards to be all foreigners, French, German, and Russian, the commanding officer, a Frenchman, being killed.

LORD ROBERTS'S FORCE.

In addition to the force here immediately under the command of Lord Roberts, there are now operating in the south the eighth division, under General Rundle, which has only recently arrived from England, and the third division, under General Chermiside. The tenth division, under General Hunter, had been withdrawn from General Buller's force in Natal and was sent first to Aliwal North on the 14th of April, but has now been ordered to proceed by rail to some point north of Kimberley beyond the Vaal River, Lord Roberts considering that he had sufficient force already in the south to control the situation. General Brabant's brigade of mounted infantry, about 1,300 strong, is acting in conjunction with the infantry divisions converging on Wepener.

The general advance to Pretoria will probably be from the left north of the Vaal, Lord Roberts's army from the center and General Buller from the right in Natal.

The advance toward Pretoria will, I believe, automatically cause the retreat northward of the Boer forces now operating south of here, and with a threatening movement toward the rear of the passes into Natal, which are reported strongly held, clear them for the free exit of General Buller.

A great many of the rebels in Cape Colony, who had submitted, later rejoined the enemy.

In consequence, Lord Roberts issued the following proclamation:

PROCLAMATION.

To the inhabitants of the district of Albert, Steynsburg, Molteno, Wodehouse, Aliwal North, Barkly East, and Colesberg:

On the recent retirement of the enemy to the north of the Orange River, the rebels who had joined them in the northern districts of Cape Colony were treated by Her Majesty's Government with great leniency in being permitted, if not the ringleaders of disaffection, to return to their farms on the condition of surrendering their arms and of being liable to be called to account for their past conduct.

I now warn the inhabitants of the northern districts, and more particularly those who were misguided enough to join or assist the enemy, that, in the event of their committing any further act of hostility against Her Majesty, they will be treated, as regards both their persons and property, with the utmost rigor, and the extreme penalties of martial law will be enforced against them.

ROBERTS, *Field Marshal,*
Commander in Chief, South Africa

ARMY HEADQUARTERS,
BLOEMFONTEIN, *April 9, 1900.*

A large number of the Free State Boers who had at first submitted and returned to their homes have since rejoined their commandos.

The British have been too merciful, and I believe, had a more rigorous course been adopted when the army first entered this capital and the enemy thoroughly stampeded, the war would have been materially shortened.

Lord Roberts was undoubtedly deceived by the general professions of submission.

The delay of the army here, combined with their minor successes on the flanks have allowed the enemy to "brace up" and even perhaps hope for ultimate success, which is impossible.

The army immediately under Lord Roberts's command here is now organized as follows:

A new division has been constituted and designated the eleventh, under General Pole-Carew, C. B. It consists of the Guards Brigade and the eighteenth. The former had hitherto been unassigned. The place of the eighteenth brigade in the sixth division is taken by the twelfth under General Clements, which had previously been operating in the north of Cape Colony. This will augment the army to four complete infantry divisions, the seventh, ninth, sixth and eleventh, or about 24,000 men. The third and eighth divisions

will probably not join in the advance, but will be utilized to guard the line of communication, etc.

An additional brigade has been added to the cavalry, which now consists of four brigades, in all about 5,000 effectives, under General French.

The mounted infantry has been largely increased and formed into a division under Major General Hamilton. The division consists of: the first brigade (Major General Hutton), of four corps of regulars and irregulars; the second brigade (Brigadier General Ridley), organized like the first.

The strength of the division is 9,320 men.

In the redistribution of artillery, horse and howitzer, one battery of horse artillery has been allotted to each cavalry brigade and one to each mounted infantry brigade; two Vickers-Maxims, 1-pounder, to each cavalry brigade and four to each mounted infantry brigade; eight galloping Maxims to mounted infantry division. The galloping Maxims are fitted on light carriages and are drawn by two horses.

The corps artillery was composed of two batteries of horse artillery and three of 5-inch howitzers.

Accordingly, each cavalry brigade has six horse artillery guns and two Vickers-Maxims, and each mounted infantry brigade six horse artillery guns, four galloping Maxims and four Vickers-Maxims, besides the machine guns pertaining to each regiment. In addition, there are the three field batteries of each division of infantry, the four 4.7-inch and four 12-pounder naval guns and the heavy artillery mentioned in concluding paragraph of Report 2, of which the four 6-inch naval guns have arrived.

A mounted company of signalers, consisting of 1 officer and 30 men has been organized.

Four companies of mounted engineers have also been organized.

One cyclist has been allotted to each army and division headquarters.

SICK IN HOSPITALS.

The total number of the sick in hospitals on the 18th instant (to-day) is 75 officers and 2,464 men. Of these, 26 officers and 776 men have enteric or typhoid fever, which since my last report has greatly increased.

There have been a number of deaths, but just how many I can not now ascertain.

The majority of the other cases are dysentery ones. The enteric fever is marked by an absence of abdominal symptoms, and in its early stages may be overlooked by the sufferer and taken for influenza or other vague disease. The hospital accommodations here are adequate, many of the public buildings being devoted to that purpose in addition to the government and private field hospitals.

The hospitals are most admirably conducted, and each has a number of trained female nurses besides the male attendants, etc.

As most of the army now have tents and the rainy season is at its close, it is hoped that the cases of enteric and dysentery will decrease. It has been raining almost constantly for the past two weeks. The nights are cold, at times a slight film of ice forming, though the days are comfortably warm, even when clothed in the same manner as when on the march from Enslin.

The following orders, which have just been furnished me, on different subjects, may prove of interest, and I therefore embody them.

DISCIPLINE.

ARMY HEADQUARTERS,
JACOBSDAL, *February 16, 1900.*

Referring to Field Army Orders No. 1 of yesterday, several disgraceful cases of plundering have taken place in this town. The troops are warned that the first man caught and convicted will be hanged, and the battalion to which he belongs will be sent back to Cape Town for garrison duty.

The Field Marshal, Commander in Chief, expects all general and other officers commanding to support him in his intention to preserve order.

This order to be read at the head of every unit on three successive parades.

By order,

W. F. KELLY, *Colonel.*
D. A. G. for Chief of Staff.

ARMY HEADQUARTERS,
JACOBSDAL, *February 17, 1900.*

While the Field Marshal, Commanding in Chief, is confident that all ranks of Her Majesty's army in South Africa share the great satisfaction he feels regarding the success which has attended the efforts of the horse artillery, cavalry, and mounted infantry during the recent operations, he desires to record his opinion that this success would have been impossible without the material and moral assistance afforded them by their comrades in the field artillery, royal engineers, and infantry amidst great heat

and under very trying circumstances. All ranks have pushed on in support of the cavalry division and Lord Roberts feels sure that their Queen and country as fully appreciate the value of the work they have performed as he does himself.

The results of the recent operations for the relief of Kimberley have demonstrated what can be achieved by a mobile and well-disciplined force, and whatever may be the difficulties or dangers to be faced, before the campaign is brought to a satisfactory conclusion, Lord Roberts trusts implicitly to the army, which it is his pride and privilege to command, to overcome them.

By order, etc.

RESOURCES OF THE COUNTRY TO BE UTILIZED.

JACOBSDAL, *February 18, 1900.*

The Field Marshal, Commanding in Chief, desires to impress on all general and commanding officers engaged in the present field operations the necessity of utilizing the resources of the country to the fullest extent with respect to meal, forage, slaughter cattle, sheep, horses, wagons, trek oxen and mules.

If the inhabitants will sell such animals and stores as may be required, they should be purchased at a fair price. If they refuse to sell or if no one is in charge of the property, it should be taken possession of and handed over to the supply and transport or other responsible officers, receipts when possible being given to the owners.

By order, etc.

EMPLOYMENT OF BRIGADE DIVISIONS AND BATTERIES OF ARTILLERY ATTACHED TO INFANTRY DIVISIONS OR INFANTRY BRIGADES.

ARMY HEADQUARTERS,

STINKFONTEIN, *February 20, 1900.*

Brigade divisions and batteries of artillery attached to infantry divisions or infantry brigades, will not be tactically employed by commanders of such divisions and brigades, when within reach of headquarters, without special orders from the chief of staff, except on emergency, such as to repel an attack on camp or position or when their command is ordered to carry a position by assault.

By order, etc.

SANITATION, ETC.

ARMY HEADQUARTERS,

STINKFONTEIN, *February 21, 1900.*

The attention of all officers commanding units is again invited to the necessity of exercising more supervision over the discipline, sanitation, and regularity of bivouacs.

On arrival at a bivouac each unit should occupy its allotted space. latrines should be dug, places for cooking, depositing rubbish, transport

officers' and other horses, etc., established and no other places permitted to be used for such purposes.

The greatest care should also be taken to prevent the fouling of the water supply and to allot places for drawing drinking water and watering animals.

Offal must be buried and dead horses and other animals removed from the vicinity of camp, cut open, and, if possible, buried.

The messing of men should be conducted with as much regularity as possible, under the supervision of the officers, who will similarly exert themselves in looking after the comfort and cleanliness of their men, and insuring that they should suffer as little as possible from heat by day and cold by night; much may be done in this direction by the exercise of a little ingenuity. Similarly, during stay in a bivouac daily fatigues and inspections should be provided for as would be done in standing camp, and every care must be taken to keep the surroundings in as sanitary a condition as possible.

By order, etc.

* * * * *

The Allweiler No. 6 field pump is in general use in the army. It is very light and portable; is attached generally to an upright board; capacity 20 gallons an hour; one man. The handle is moved from right to left over an arc of 15° from the perpendicular on each side. The Beskefeldt filter, of which each regiment has one, is used in conjunction with this pump for drinking water.

I can not say when Lord Roberts's advance from here will commence, but it will be known in Washington long before this report reaches there.

The army has been, since being here, reenforced, reprovioned, reclothed, and remounted, so it is practically a fresh army, though a seasoned one.

Very respectfully,

S. L'H. SLOCUM,
Captain Eighth Cavalry,
Military Attaché, South African Field Force.

REPORT NO. 4.

PRETORIA, SOUTH AFRICAN REPUBLIC,

June 7, 1900.

ADJUTANT GENERAL, UNITED STATES ARMY,

Washington, D. C.

SIR: I have the honor to submit the following report of the operations of the British army on its advance from Bloemfontein to Pretoria.

The operations in the southeastern portion of the Free State had been of such a nature as to force the mass of the enemy north of the line Bloemfontein-Thaba Nchu-Ladybrand.

The town of Wepener, which had been besieged by the Boers, was relieved on April 25, their forces retiring northward along the Basuto border.

No attack on the line of communication from Bloemfontein south to Orange River—121 miles in length, and the only line connecting the British with their base—was made by the Boer forces while they were operating south of Bloemfontein, their energy being frittered away by such useless operations as the siege of Wepener and divers threatening movements never pushed home.

THE ADVANCE.

On May 1 the eleventh division advanced to Karree Siding, joining the seventh division already there. The eighth and ninth divisions were in the neighborhood of Thaba Nchu. The third division was on line of communication to the south.

On May 3 army headquarters proceeded from Bloemfontein by rail and joined the forces at Karree Siding. The sixth division was left to garrison Bloemfontein.

On the arrival of headquarters, the advance toward Brandfort was begun.

During the army's advance to Pretoria the enemy's resistance was never more energetic than a rear-guard action.

The British army advanced each day to the place designated officially in the morning as the camping ground for the night, and in some cases even beyond it, the enemy's opposition never being of such a stubborn character as to retard seriously the march. All the actions were more or less of the same nature.

The cavalry and mounted infantry would come up with the enemy, who had every appearance of being determined to stand, and would open a hot fire on the mounted men, but by the time the infantry and heavy guns came up and the flanking columns appeared, the Boers began their retreat, leaving, as a rule, only a small force to hold the British, while their wagons and guns were safely retired. At first it was the general belief and hope of the British that they would surely next time stand and fight, but finally such hope was abandoned, and it became only a question of supplies as to when the army would enter Pretoria, no consideration of the enemy being taken into the calculation.

Therefore, as the actions during this advance were of such little importance from a critical point of view, I will not describe them, but give the itinerary of the strategical advance of the different forces.

MAY 3.—The eleventh division moved along the railroad, with Hutton's mounted infantry brigade about 3 miles on its left. The seventh division moved parallel with the eleventh and about 4 miles on its right.

Lieut. Gen. Ian Hamilton, leaving the eighth division in the neighborhood of Thaba Nchu, advanced with the ninth division, twenty-first infantry brigade, under Gen. Bruce Hamilton, and the second cavalry brigade and Ridley's mounted infantry toward Winburg. The third brigade of the ninth division, with Lieut. Gen. Sir H. E. Colville, was kept as a reserve half a day's march in rear. Total effective of this column, exclusive of the third brigade, was about 10,600 men, with two 5-inch, 36 field, and 23 machine guns.

General French, with the first, third, and fourth cavalry brigades, remained near Bloemfontein awaiting reinforcements.

Lord Methuen, with 163 mounted infantry, 4,900 infantry, 16 field guns, two 5-inch howitzers, 2 Vickers-Maxims and 12 machine guns, was at Boshof.

Brandfort was occupied by Lord Roberts with only slight opposition.

MAY 4.—Barton's brigade, the tenth division (Imperial), crossed the Vaal River a little north of Eland's Drift, moving north around right of Boer position at Fourteen Streams, the remainder of division moving direct on Fourteen Streams. The effective strength of the tenth division was about 7,600 infantry, 18 field and 6 horse artillery guns, 4 Vickers-Maxims and 16 machine guns. Colonel Mahon concentrated

a force of 1,000 colonial mounted infantry and 100 infantry at Barkly and advanced to the relief of Mafeking, moving west of the railway.

The force immediately under Lord Roberts remained at and in the vicinity of Brandfort.

MAY 5.—Eleventh division, with Hutton's brigade, mounted infantry in advance, moving along railroad; fourteenth brigade (Maxwell's) of the seventh division, on its right, the remaining brigade of the seventh division the 15th (Knox), following as reserve along railroad, advanced to Vet River, where the Boers were found in position on opposite bank.

The mounted infantry crossed the river and turned right flank of Boer position just about dusk. Artillery engaged the enemy's center until dark.

During the night the enemy retired.

Total casualties, 15 wounded, 1 killed. Army bivouacked on south side of Vet River.

General Hamilton captured Winburg.

MAY 6.—The army crossed the Vet River and advanced to Smaldeel. The army had only one day's rations, the march having been so rapid the supply park wagons—oxen—had not yet overtaken it to resupply the mule wagons moving with the enemy. The railroad had been badly damaged, twelve bridges and culverts having been blown up between Vet River and Brandfort.

Two trains reached the Vet River late at night, the Royal Engineers having repaired the line, a fine piece of work, for which they deserve credit.

The railway pioneer regiment, a volunteer organization under Maj. Lewis Seymour (an American), who, I regret to say, was subsequently killed while repairing the bridge at Zand River during an attack by the Boers upon his working party, rendered most valuable service in this repair work, and it was due to their efforts, in great part, that the line was repaired with such rapidity as the army advanced northward.

The railway engineering work was always splendidly done, both by the Royal Engineers and volunteers. To them is mainly due the possibility of the rapid advance of the army to Pretoria, for, without the railway, the army could move only slowly, and every bridge and almost all culverts were blown up between Karree Siding and the Vaal River, and in some places the roadbed and rails.

The bridge across the Vaal River was destroyed, but beyond that point the railway was little damaged.

The Transvaal Boers smashed everything along the government railway in the Orange Free State as they retired, but were chary about damaging their own road, of which the State owned about one-third. The operators were mainly Hollanders and bitter Boer partisans.

MAY 7.—The headquarters and eleventh division were at Smaldeel; seventh division, fourth and eighth mounted infantry corps, at Osfontein. General Hutton, with first and third mounted infantry corps, at Welgelegen, patrolling to the Zand River. General Hamilton was six miles north of Winburg. General Brabant, with about 2,000 mounted infantry, joined General Rundle and eighth division at Thaba Nchu, having come up from the south.

MAY 8.—The army remained at Smaldeel and vicinity. The first cavalry brigade, General Porter, joined it from Bloemfontein.

MAY 9.—The third and fourth cavalry brigades, Gordon's and Dixon's, joined the army at Smaldeel.

General French, with the first and fourth cavalry brigades, a portion of Hutton's mounted infantry brigade, three batteries of horse artillery, one Hotchkiss battery, eight Vickers-Maxims, and four galloping Maxims, advanced to De Preez Laager, on Zand River; eleventh division moved along railroad; seventh division, with Henry's corps of mounted infantry, on the right about 4 miles.

Third cavalry brigade (Gordon's) covered the advance of eleventh division and army headquarters.

Hamilton advanced on right of seventh division toward Ventersburg.

The front of the British forces advancing, from French on the left to Hamilton on the right, was about 22 miles in extent.

General Colville, with the third infantry brigade, remained as garrison in Winburg, the eighth division operating in the direction of Ladybrand.

Lord Methuen, with first division (ninth and twentieth brigades), consisting of five regular and three militia battalions, 163 mounted yeomanry, a total of 4,686 men, 16 field guns, two 5-inch howitzers, 2 Vickers-Maxims, and 12 machine guns, advancing toward Hoopstad.

The forces immediately under Lord Roberts had six days' full rations. Camped at Welgelegen.

MAY 10.—General French advanced in a northeasterly direction to Graspan, meeting with continuous but half-hearted opposition (casualties about 100).

Eleventh division, preceded by second cavalry brigade and eighth and fourth mounted infantry corps, moved along railway. The cavalry and mounted infantry advanced to Ventersburg road station, eleventh division to Riet Spruit Siding, seventh division to Deelfontein, Hamilton to vicinity of Ventersburg.

These right columns met with strong resistance for a time, but forced the enemy back, who retired during the night from along the entire front.

MAY 11.—The army advanced and met with little opposition.

French and Hutton proceeded in direction of Bloemhof; fourth cavalry brigade crossed the Valsch River, first cavalry brigade camping at Drift, mounted infantry moving in the direction of Rietgat. Eleventh division to Welverdiend, Hamilton and seventh division moving north of Ventersburg toward Kroonstad.

MAY 12.—The cavalry brigades, united, advanced to Fairfield, Hutton's mounted infantry to the Valsch River near Strydfontein. Eleventh division and headquarters entered Kroonstad without opposition.

MAY 13.—The army remained at and in vicinity of Kroonstad. Railway repaired to Zand River.

MAY 14.—Army remained at Kroonstad. Colonel Mahon joined Colonel Plumer's force, about 700 men, who was operating southward from Rhodesia, at Masibi west of Mafeking. General Hamilton's column joined the forces at Kroonstad.

MAY 15.—Army remained at Kroonstad. Lord Methuen moved toward Hoopstad and Bothaville, General Hunter, with tenth division, advancing toward Vryburg, and General Rundle, eighth division, moving northeast of Ladybrand. General Hamilton advanced about 7 miles toward Lindley.

The list of casualties in all the forces directly under Lord Roberts, in the advance from Bloemfontein to Kroonstad, was as follows:

	Killed.		Wounded.		Missing.		Prisoners.	
	Offi- cers.	Men.	Offi- cers.	Men.	Offi- cers.	Men.	Offi- cers.	Men.
General Hamilton's column.....	2	13	5	87	-----	14	2	4
First, third, and fourth cavalry brigades.....	1	12	5	48	1	17	1	4
Mounted infantry	-----	-----	1	14	-----	-----	-----	-----
Seventh division.....	-----	2	1	-----	-----	-----	-----	-----
Eleventh division.....	-----	2	1	-----	1	2	-----	-----
Total	3	29	13	149	2	33	3	8

MAY 16.—The army remained at Kroonstad, waiting for supplies which were being brought from rail-head, Zand River, by ox and mule wagons. Lord Methuen at Hoopstad.

MAY 17.—General Hamilton occupies Lindley. Mafeking relieved by Colonels Mahon and Plumer's forces. No movement from Kroonstad.

MAY 18.—The army remained at Kroonstad. General Buller occupies New Castle in Natal.

The slowness of General Buller's advance in Natal since the relief of Ladysmith over two and one-half months previous is inexplicable.

* * * * *

Had General Buller advanced and struck north into the Transvaal until he reached the Delagoa Bay Railroad, he would have cut the Boer line of retreat and supply, and I believe compelled, in conjunction with Lord Roberts's advance, President Kruger and the Boer forces to surrender. Or had he moved through the western passes into the Orange Free State and advanced northward toward Vrede and Frankfort *pari passu* with Lord Roberts, his splendid army of 25,000 men would have been a most important factor in the advance toward Pretoria.

MAY 19-20.—No movement from Kroonstad. Headquarters, and sixteenth brigade, Campbell's, of the eighth division, at Trommel on the line Winburg-Ficksburg; seventeenth brigade, Boyes, same division, at Bestersflat. Twelfth brigade, Clements's, sixth division, from Bloemfontein to Winburg; General Colville, with third infantry brigade, from Winburg to Ventersburg, en route to Lindley and Heilbron.

MAY 21.—Headquarters and troops at Kroonstad remained stationary.

About 1,000 Boers with arms had come into Kroonstad to date, and surrendered, taking the following oath of neutrality :

No. ———.

I, the undersigned, ——— ———, of ———, in the district of ———, do hereby solemnly make oath and declare that I have handed in and given up all the arms and ammunition demanded of me by the British authorities; namely, all rifles and rifle ammunition of whatsoever description they may be.

And I solemnly swear that I have no rifle or rifle ammunition remaining, and that I know of none such being concealed or withheld by anybody whatsoever. And I further swear that I will not take up arms against the British Government during the present war, nor will I at any time furnish any member of the Republican forces with assistance of any kind, or with information as to the numbers, movements, or other details of the British forces that may come to my knowledge. I do further promise and swear to remain quietly at my home until the war is over.

I am aware that if I have in any way falsely declared in the premises, or if I break my oath or promise, as above set forth, I shall render myself liable to be summarily and severely punished by the British authorities.

I make the above declaration solemnly, believing it to be true, so help me God.

Before me, ——— ———,
Military Governor.

This oath was also in Dutch, and both were signed.

This is the oath of neutrality used throughout the war, and was very often by these God-fearing Boers broken.

The following is the official return of the effective forces immediately under Lord Roberts's orders as rendered on May 21 :

	Present.		Sick.		Horses.	Guns.		
	Officers.	Men.	Officers.	Men.		Heavy.	Field.	Machine.
General Hamilton's column, including second brigade cavalry, second brigade mounted infantry, second, fifth, sixth, seventh corps, nineteenth and twenty-first infantry brigade	423	10,210	7	146	4,200	2	36	23
First cavalry brigade	58	956	1	24	795		6	7
Third cavalry brigade	65	1,032	3	55	756		12	7
Fourth cavalry brigade	61	970	2	29	719		6	5
Hutton's brigade mounted infantry, first, third, fourth, and eighth corps	190	3,440	2	80	3,327		6	23
Seventh division	183	6,060	8	189	260		18	11
Eleventh division	202	6,541		115	181	2	18	8
Corps troops, mounted yeomanry, naval brigade	10	200			200	2	2	2
Total	1,192	29,409	23	638	10,438	6	104	86

MAY 22.—Army advanced from Kroonstad. Seventh division left; eleventh division right of railway.

Fourth and eighth mounted infantry corps, Henry's and Roos's, two companies first battalion yeomanry covering immediate front. General French, with first and fourth cavalry brigades, first and third mounted infantry corps, Addison's and Pilcher's, to left of seventh division, and about 12 miles in front.

The third cavalry brigade, Gordon's, on right of eleventh division as a link to Hamilton, who, with second cavalry brigade, second mounted infantry brigade, second, fifth, sixth, and seventh corps, nineteenth and twenty-first infantry brigades, four field batteries and two 5-inch guns, moved northeast of second cavalry brigade in direction of Heilbron. General Clements's brigade, twelfth of sixth division, from Bloemfontein to Winburg.

The forces on the line of communication from Kroonstad to Springfontein, Orange Free State, were as follows:

At Wepener—First battalion Royal Scots, about 800 men.

Smithfield—Second battalion Royal Irish Rifles and fourth battalion Derbyshire (militia), 2,000 men.

Dewetsdorp—First battalion Northumberland Fusiliers and third battalion East Kent, 2,000 men.

Springfontein—Six companies third battalion Durham Light Infantry, about 600 men.

Jagersfontein—Two companies third battalion Durham Light Infantry, about 200 men.

Van Zyl Spruit—One company third battalion Norfolk regiment, about 100 men.

Edenburg—Two companies third battalion Norfolk regiment, about 200 men.

Riet River—Five companies third battalion Norfolk regiment, about 500 men.

Kafir Bridge—Seven companies third battalion Royal Scots, 740 men.

Kaal Spruit—One company third battalion Royal Scots, 100 men.

Bloemfontein—Thirteenth brigade sixth division, second battalion Berkshire regiment, four companies mounted infantry and 10 guns, about 4,500 men.

The Glen—Two companies third battalion East Lancashire, about 200 men.

Karree Siding—Two companies third battalion East Lancashire regiment, about 200 men.

Brandfort—Two companies third battalion East Lancashire regiment, about 200 men.

Vet River—Third battalion Royal Lancaster regiment, 1,000 men.

Zand River—Ninth battalion Royal Rifle Corps, about 1,000 men.

Kroonstad—Fourth battalion Argyle and Sutherland Highlanders, 1,000 men.

A grand total of 15,340 men guarding line of communication.

The army had four days' rations in regimental transports, mule wagons, and four days' in supply park—ox wagons—following in rear, but forage for only four days, and there was little or no grazing to be found on the advance, due to poor grass and veldt fires. The country furnished no food whatever beyond a few cattle to foraging parties. Water was very scarce and uncertain. There was no wood and the men had to pick chips from the railway fence posts to make a small fire for their coffee in camp.

Generally two or three men would club together what little wood they had collected and cook over the one fire, so that at night the camp with its hundreds of tiny fires looked as if a swarm of lightning-bugs had settled over it.

On the afternoon of the 22d, General French crossed the Rhenoster River, about 5 miles west of the railroad.

General Hamilton entered Heilbron.

The headquarters with the center column bivouacked at Honing Spruit, encountering no opposition during its march.

MAY 23.—The seventh and eleventh divisions advanced to the Rhenoster River without opposition. Both bridges were destroyed and the track blown up for 3 miles. French to Essensbosch. Hamilton, moving toward Groot Vlei, coming in for rations. General Colville, with third brigade, two 4.7-inch naval guns, and five field batteries, left Winburg en route to Lindley and Heilbron.

MAY 24.—General French advanced toward Parys, crossed the Vaal River, and moved on Lindeque. Seventh and eleventh divisions to Vredefort Station. Railway repaired to Rhenoster River, two trains of supplies arriving. General Hunter, with tenth division, occupied Vryburg.

MAY 25.—Seventh and eleventh divisions advanced to Groot Vlei. Hamilton at Groot Vlei waiting for rations and forage.

MAY 26.—Seventh and eleventh divisions advance to Taai-bosch Spruit.

General Hamilton crossed the Vaal River at Boschbank, moving to cooperate with French. Third cavalry brigade on right of eleventh division as flankers; fourth and eighth mounted infantry, two companies of yeomanry, as advanced guard of the two divisions. Lord Methuen from Bothaville on Kroonstad. General Clements with twelfth brigade, moving from Winburg on Senekal. Colvile occupied Lindley. Railroad blown up north of Germiston by F. R. Burnham, an American volunteer with British intelligence department, who was habitually three or four days in advance of the army, and rendered most valuable service.

MAY 27.—Seventh and eleventh divisions crossed the Vaal River without opposition at Viljoens Drift, and camped at Vereeniging. General French at Hartebeestfontein; General Hamilton at Wildebeestfontein. The bridge across the Vaal River was destroyed by the enemy on retiring.

MAY 28.—Eleventh division advanced to Klip River Station; seventh division to Witkop; third cavalry brigade to Waterval; General Rundle, with eighth division, north of Senekal; General Brabant, with about 2,000 colonials, mounted infantry, at Ficksburg; General Hunter at Doornbult on Kimberley-Mafeking railway.

The railway was blown up by Burnham again north of Germiston.

MAY 29.—The army advanced and occupied Germiston after some opposition to the mounted infantry, fourth and eighth corps, which was in advance, and to which much credit is due for their rapid and successful advance upon Germiston without infantry support.

To the mounted infantry and Mr. Burnham is due the capture of nine locomotives and about two hundred railway cars and trucks, which were of the greatest use to the army.

Two trains made up from the captured rolling stock and mainly operated by soldiers, were sent to Vereeniging at once for much needed supplies.

This day made the army's eighth continuous one of marching, a fine performance for the infantry, being a fraction over 17 miles a day, fighting and repairing fords en route, with

short rations, little water, hot days and cold nights, and they were physically fit to go right on.

Negotiations were opened with the commandant of Johannesburg for its surrender.

The Rand mines were learned to be uninjured, though President Kruger had ordered them to be destroyed. General Botha, commander in chief of the Boer forces, refused to obey the order, and then President Kruger sent it direct to the commandant of Johannesburg, Dr. Krause, who likewise refused to comply, and increased the guard on these gold mines to prevent their destruction.

General Hamilton advanced to Florida. General Colvile reached Heilbron and remained. General French bivouacked a few miles north of Johannesburg on the Pretoria road.

MAY 30.—Seventh division, third cavalry brigade, fourth and eighth mounted infantry corps, occupied the heights north of Johannesburg. Eleventh division moved to the south of the city.

Negotiations for the surrender of Johannesburg continue.

Barton's brigade, sixth and tenth divisions, reached Barberspan, moving east toward Klerksdorp.

MAY 31.—Johannesburg surrendered and the army entered, bivouacking on the hills north of the town, the third cavalry brigade guarding the dynamite factory.

In the railroad yard were captured nineteen locomotives and a quantity of rolling stock, which had been unable to proceed north through Germiston.

The forces of Generals Hamilton and French were entirely out of supplies and had been for three or four days.

According to an official memorandum of to-day, there are now operating north of Orange River, exclusive of Natal, 99,000 men, and a total of 203,000 in South Africa.

The thirteenth battalion of yeomanry was attacked by a large force at Lindley, and after three days' fighting surrendered with a large convoy.

JUNE 1-2.—The army remained stationary awaiting supplies.

Two 9.45-inch howitzers and four 6-inch ones, arrived from rail-head on the 2d. These 9.45-inch howitzers are made by Skoda at Pilsen, Austria, using shells weighing 780 pounds, with 30 pounds ammonium powder per shell as a bursting charge. The weight of carriage and gun is about $4\frac{1}{2}$ tons

each. The gun and carriage were transported separately, being each hauled, the gun on temporary carriage, by thirty-two oxen. It could be fired only from a fixed position. These guns had never been used, and were intended for the expected siege of Pretoria.

JUNE 3.—The advance was resumed. The fifteenth brigade, seventh division, remained as garrison of Johannesburg. The eleventh division, its advance being covered by the fourth and eighth mounted infantry corps, to Leeuwkop. The fourteenth brigade, Maxwell's, seventh division, to near Zevenfontein; third cavalry brigade to Waterval; Hamilton to Rietvlei; French to Rooikrans.

The enemy was not encountered.

JUNE 4.—Eleventh division advanced and crossed Hennops River, little west of Zwartkop; fourteenth brigade on its left about 4 miles; Hamilton on immediate left of fourteenth brigade and slightly in advance; third cavalry brigade on Irene Station; French and Hutton's two mounted infantry corps, via Syferfontein, to Klipfontein, north of Pretoria.

The mounted infantry came in contact with the enemy on the hills southwest of Pretoria at about 12.30 p. m., and were compelled to retire and await the artillery and infantry.

The guns of the eleventh division and the naval 4.7-inch ones arriving, a vigorous fire was opened by them against the enemy entrenched, behind the rocks, and entirely invisible. At 3.30 p. m. the eleventh division deployed and advanced slowly.

Hamilton and the fourteenth brigade became engaged at 4 p. m.

The enemy gradually retired and the British army bivouacked on the ground occupied. At 11 o'clock at night the city of Pretoria was unconditionally surrendered, the enemy's force having retreated to a position on the Delagoa Bay Railway 15 miles east of Pretoria.

There was no fire from the permanent forts about Pretoria, the large guns having been previously removed.

General French reached Hartebeestpoort on the Crocodile River late in the afternoon.

The total casualties were 2 killed and 1 officer and 48 men wounded.

JUNE 5.—The army entered Pretoria. The streets were lined with British prisoners, who had released themselves on

the retreat of the enemy's forces. The total number of these was 148 officers and 3,039 men; 900 rank and file had been removed by the Boers and taken with them on their retreat.

Mrs. Kruger and Mrs. Botha, wife of the commander in chief of the Boer forces, were found in the city, and though put under surveillance, were treated with the utmost courtesy and consideration. Mrs. Kruger was allowed to remain in the residency and have her own body-guard of Boers.

Twenty locomotives, about 225 cars, and large quantities of supplies, much of which was found loaded on the trucks in the yards, were captured.

The bridge at Irene Station was destroyed by the Boers who had kept Gordon, with the third cavalry brigade, in check at that point.

President Kruger, with some of the government officials, had gone by rail toward Middelburg. Before leaving, the President had commandeered from the banks about £2,500,000 in gold and taken it away with him, leaving a number of the government officials unpaid for the past two months.

Pretoria with its surrounding heights, offered magnificent opportunities for defense, and a force of even 5,000 determined men could have held the British army at bay for a considerable time and inflicted heavy losses before being driven back.

The army on entering Pretoria had four days' supplies, and convoys were en route from Johannesburg.

The army's strength on entering Pretoria June 5 was as follows:

	Officers	Men.	Horses.	Guns.		
				Heavy.	Field.	Machine.
First cavalry brigade.....	60	550	550		6	6
Second cavalry brigade.....	60	600	600		6	5
Third cavalry brigade.....	60	1,040	400		6	7
Fourth cavalry brigade.....	50	350	350		6	4
Second, fifth, sixth, and seventh mounted infantry corps.....	190	2,700	2,200		18	10
First and third mounted infantry.....	70	850	850		6	12
Fourth mounted infantry.....	39	690	693			6
Eighth mounted infantry.....	12	705	700			1
Eleventh division.....	199	6,353	107	2	18	8
Seventh division, less the fifteenth brigade.....	87	2,599	67		18	7
Twenty-first brigade.....	100	3,160		2	6	4
Nineteenth brigade.....	136	4,330			6	4
Imperial Yeomanry.....	24	391	338			2
Corps artillery siege train.....	12	114	116	8	8	
Total.....	1,099	24,432	6,971	12	104	76

The Imperial Yeomanry were organized into thirteen battalions of 4 companies each, and were all mounted.

The casualties on the advance from Kroonstad to Pretoria were:

	Killed.		Wounded.		Missing.	
	Officers.	Men.	Officers.	Men.	Officers.	Men.
First, third, and fourth cavalry brigades		5	11	34	1	12
Hamilton's column, including second cavalry brigade..	1	20	16	146	2	38
Mounted infantry		3	2	40		
Seventh division				4		
Eleventh division		1	1	24		
Engineers and yeomanry			1	1		

Total number of casualties was 363, which, together with the 240 suffered on the march from Bloemfontein to Kroonstad, gives a grand total of 603 during the advance from Bloemfontein to Pretoria of the above-mentioned units.

JUNE 6.—General Hunter, tenth division, occupied Lichtenburg. Lord Roberts, through Col. Viscount Downe, officer in charge of military attachés, officially informed them all that he believed the main operations of the army to be over; that both capitals of the allied enemy had been occupied, and that from now on the fighting would be done by many small units operating over large areas of country to repress local troubles, and that he thought the services of the foreign military attachés had been attained and their duties over.

COMMENTS.

The march northward from the line Bloemfontein—Thaba Nchu—Fourteen Streams was most admirably planned and conducted. The front of this advance was some 200 miles in breadth, extending to Bethlehem, and had even a portion of the Natal field force entered the Free State through the almost unguarded passes and operated in conjunction with Lord Roberts's army from Bethlehem north, the result would have been decisive and conclusive. The area over which the British forces were compelled to operate was enormous and almost devoid of supplies of any kind. The area of the Orange Free State is some 50,000 square miles and that of the South African Republic some 114,000.

Of such a total area an army, such as was available to Lord Roberts, of less than 100,000 men could only possibly cover a small portion.

The railway line over which all the supplies of every kind and description must come to the main army was narrow, single-tracked, and badly constructed, and there was an inadequate amount of rolling stock for the long line extending back to Cape Town and Port Elizabeth, over a thousand miles from Pretoria. The wear and tear on all animals, draft and others, was terrific, due mainly to short forage, bad grazing, little water, and continuous hard work under a hot sun.

Almost complete remounts and large quantities of fresh transport animals are now necessary, and these must all come from the base over this one line of railway until such time as the road in Natal is available.

The infantry has done splendidly always, but the reluctance of the soldier to intrench himself and the indifference of the officers to enforce this most necessary and vital precaution was strikingly shown upon all occasions.

They would pile up a little parapet of stones, visible for a long distance, and consequently a target for the enemy's guns and a source of death in itself when struck by a shell, but they would rarely ever dig a trench. I never could understand this serious fault.

The Boers intrenched at every opportunity and were invisible, but their enemy was always "in evidence."

The disregard of the British officer and soldier of all corps of ordinary precautions for his own safety is astonishing. The infantry never make rushes in their attacks, but march erect and calmly forward. I have seen mounted men under a hot rifle fire at short range halted, waiting for orders to advance, sitting erect on their horses, a perfect target, while, by lying over on their horses' necks they would have had some protection, as I had. They have not the individuality and resources of our men, but for indomitable courage, uncomplaining fortitude, and implicit obedience they are beyond criticism.

The majority of the British officers look upon their army service as a mere incident in their lives, shortly to be given up for the delights of country and town life; few of them look upon it seriously as a career, and consequently fail to make themselves proficient in those innumerable details necessary for a professional soldier to know, and rely too much, far too much, on the noncommissioned officers to assume those duties which rightly and properly they themselves should perform.

The soldier sees too little of his officer, and consequently in critical times instinctively turns to his noncommissioned instead of his commissioned officer.

The artillery has shown itself during this war, in my opinion, to be the best branch of the combatant service. The field and horse artillery guns were not of the most modern type and were very often outranged by the enemies; nevertheless, the gunners, both officers and men, have demonstrated that they are as good as the most critical commander could desire.

The naval guns, worked by sailors, have been one of the most important factors of the war. The mounted infantry has done a large part of the reconnoitering and patrolling. It is composed of regular infantry and colonials, and though at first they hardly could be called effective in this work, still as they gained experience they came to be looked upon with more confidence, and with the longer range of their arms admirably filled the gap made by the small cavalry force. In this connection, cavalry and mounted infantry, I will state my belief that our cavalry, as drilled and instructed, is the best in the world to meet successfully the new conditions of war.

That dismounted fire action for cavalry is a necessary component of its success I do not think there is a doubt, and our cavalry is the only one in the world thoroughly drilled and instructed in it. From conversation with the eight other attachés representing all the large powers of the world, I was especially struck with the fact of how little serious attention had been given to this matter in the cavalry of other countries. My experience has convinced me that the day of large cavalry bodies meeting in a *mêlée* is past, and that cavalry using a long-range carbine, with bullet not under .35 caliber, and instructed as ours is, quickly to dismount and use it, will defeat any opposing horsemen trying to get home with saber or lance.

I would lay special stress on the larger caliber, for the .303-nonexplosive will not stop a horse. I have seen horses shot right through the neck or body by the small bullet, go all the afternoon under their riders and be entirely fit in three or four days.

In my opinion the bullet is too merciful which permits of a large percentage of those wounded by it to return to the

front within a few weeks, as the Mauser .27 and Lee-*Metford* .303 did in this war.

A careful study of the war in South Africa by European powers, showing, as it does, the great possibilities of the defensive with smokeless powder, magazines, rifles, and increased artillery range, will do more to preserve the peace of Europe than a hundred Hague conventions.

The clip system of the Mauser rifle is, I think, an excellent one. Not only are the cartridges loaded into the magazine much more quickly than without it, but the clip holds the cartridges in the belt and prevents their being lost. The belt worn by the Boers generally had twelve pockets, with a flap coming down over it and fastened to a stud. The bottom of the pocket or pouch was perforated with five holes. The clip with the five cartridges in it was put horizontally into the pouch, the ends of the cartridges protruding through the holes at bottom, and the flap flattened down; the cartridges were then secure and could also be withdrawn quickly from pouch.

The action of the Lee-*Metford* is like ours in respect to the loading, each cartridge being separately inserted, and the infantry carried their cartridges loose in two pouches in front on each side of belt plate, the effect of which was bad in two ways:—the man could not lie prone and was constantly losing his cartridges.

Our cavalry, combining as it does the essential advantage of both mounted infantry and cavalry, renders unnecessary the two distinct branches, but it should have a gun firing a larger bullet. Our regiments, I believe, are too large, unless one squadron is habitually kept as a depot one and not consolidated with the others in the field. The two squadrons of 800 men in action are the maximum number of mounted men that can possibly be even generally controlled by one man. The moment after the deployment begins into open order—and everything must be in this formation now—the colonel's control is gone, and the success of the movement depends wholly upon the commanders of small units; even the squadron commanders must let go the reins and trust to the captains. Such a thing as maneuvering as a regiment is impossible; it will be squadrons only; and the colonel's orders will consist of simply directing, by messengers or signals, squadron commanders to do so and so. The same

applies, of course, to the infantry, though in a less degree, and it is for just this reason that I believe our men with their distinctive individuality and ability to think and take care of themselves to be the best soldiers in the world. I don't mean by this hastily recruited volunteers shoved immediately to the front, but the average American after being thoroughly drilled and disciplined; for without this his very individuality becomes a menace and danger, for instinctive obedience to the orders given for his future guidance after he has passed out of the control of his officers is a *sine qua non* to his success and that of his command.

There must be a general harmony of movement, the controlling idea must be followed by all, and individuals must not consider the expediency of the same, as undisciplined and undrilled men will always do.

Discipline is more necessary now than ever before, when the soldier is left to act so much for himself.

The British infantry officers in the middle and latter part of the war never carried a sword, but all carried rifles, and every distinctive badge of an officer (except the little gold ones of their rank on their shoulders, and even these were generally colored khaki) was removed. This accounts for the decrease in what was the unusually large percentage of casualties among the officers in the beginning of the war.

The buttons on all uniforms were khaki color, and every piece of metal, buttons and all, that otherwise would glisten in the sun; all vehicles, gun carriages, and others were similarly colored, and this I deem to be absolutely necessary.

To allow any part of the uniform or equipment of man or horse to catch the eye of a man behind a rifle which carries over 2,500 yards, and who can not himself be seen, is to court misfortune.

All parts of the uniform, even to the shirts, should generally be of some neutral shade of brown, though under certain conditions of foliage, a middle shade of green would be, perhaps, better.

If it were a possibility, and I believe it is, I would advocate a uniform colored one side khaki and the other green, made to be reversible. I do not believe the soldier going under fire will mind the seams showing. If the manufacturers say this is impossible, I would suggest the abolition of some of the full-dress uniform, and the money saved thereby

devoted to providing the soldier with the two suits, khaki and green.

Modern war is business of the most serious and scientific kind, and every part of the equipment which delights the eye must disappear from it.

The British regulars all wore helmets and the colonials slouch or soft felt hats. The helmet is heavy and stiff, and is difficult to handle when lying down, whereas the slouch hat is never in the way, thoroughly protects the eyes, and if the crown is made high enough, even a little higher than ours, should protect the head sufficiently against almost any sun.

During the broiling hot days of January and December in Africa, I found, on the march, that by putting a handkerchief loosely inside of my hat—a regulation campaign one—my head was better protected than by the heavy helmet which I tried and threw away.

All the leather equipments of the army were of fair leather, and always looked well; with only a little soap and water they were kept pliable and soft, and seemed never to crack, whereas my personal black leather ones lasted only a relatively short time, and never looked nearly as well as the fair leather ones, no matter how much care was given them.

The army took no tents with them, except those for the field hospitals, which were white and could be seen for miles. The brown tent is, I believe, to be adopted in future.

In stationary camps of even two or three days' duration, though never in the near vicinity of the enemy, flags of each unit from regiment upward, of brigade and division commanders, were raised. In such an immense camp they greatly facilitated the locating of the different units, but the confusion of getting the wagons to their proper places after a long march and in the dark was very great; so great at times that all efforts to do so were given up and the wagons halted anywhere, which resulted in the men going to bed supperless.

Had a sort of information post been established on the main roads leading into camp, and a detail of six or eight men from each unit, after the camp had been selected, been sent to each one of these posts to report to an officer in charge for the purpose of acting as guides for its transportation as the unit came up, the great confusion would have been avoided,

and the officers and men would have gotten something to eat.

Each staff officer, no matter of what kind, wore as a distinctive badge on his collar a stripe of red cloth. Consequently, when orders were given by them, it was known at once that they were duly authorized to act from some authoritative source, and the bona-fideness of the order was not subject to the doubt which might arise, and often does in battle, had an officer not, so distinguished by his badge as a staff officer, delivered it.

The country was generally so flat and open in the Free State and Transvaal that the infantry regiments marched usually in columns of companies, with about one yard interval between files and easy deploying distance between companies.

At times the leading units would march all day deployed as skirmishers.

The wagons would generally march in three or four columns, regardless of roads.

The difficulties of mounted men in reconnoitering are largely increased under modern conditions.

The enemy will be usually invisible over 2,000 yards, and the cavalryman must come within rifle range before he can discover anything, and even then, when fired upon, he can not tell whether by a few men using their magazines, or many men firing deliberately. In any event he must ride into the zone of death before ascertaining whether the ground is held by the enemy or not, and can not report with any accuracy how many of them are holding it.

I have often seen what proved to be afterwards a mere handful of men compel a division to halt, deploy, and advance as though against a large force.

Field glasses of the very best description—and I would recommend the Carl Heiss D. R. P. ones, which proved to be the best of all those used in South Africa—should be in the hands of every officer and sergeant of the combatant portion of the army. The sword should be abolished.

As an infantry officer should now carry a rifle to prevent his being distinguished at a distance from the men and made a special target of, in addition to his pistol and field glasses a sword is certainly superfluous.

Another of the many difficulties arising from the new conditions of war is the handling of supports and reserves.

To be immune from heavy casualties by rifle alone, the supports must be over 2,000 yards in rear of its firing line, unless cover intervenes, and the time it would take them, when minutes or even seconds may be precious, to reach the firing line without complete exhaustion would be so long that it might have to retreat before they got to it.

In the open country over which the British generally fought in the Orange Free State and Transvaal, they used successive deployed lines, and all were more or less under fire at times.

The rear line acted as the supporting one, and was pushed in as close as possible without suffering severe loss, being directed to the point where reinforcements were most needed.

The infantry reserves, when there were any, held defensive positions in rear to act as rallying points for the front lines should they have to retire, because to be out of range they had to be so far to the rear that they could not get to the front in time to help.

The country, as I have stated, was flat and almost free of cover, which made these tactics necessary.

It seems to be unnecessary to say more than what I have done in previous reports concerning the imperative necessity of intrenchments as concealed as possible, and the need of utilizing all cover.

The Mauser automatic pistol, which can be used either from the hand or shoulder, carried by some of the officers, is a most excellent weapon, and with a larger bullet is better than any form of revolver that I have seen.

The saber scabbards of the British cavalry were lined with wood or cork and a keen edge was kept on the blade for some time. They are really a cutting weapon, though few opportunities were offered for using them as such, not merely a steel club, as ours must always be, with nothing inside the scabbard to protect the edge.

The blankets issued to the men were brown, with eyelet holes along the sides so that they could be laced over each other to form a shelter when needed, the bottom edges could also be pinned down and the rifle used as uprights. It was the only form of tents officers or men had, and in the hot sun of South Africa, summer or winter, were invaluable.

General French and the cavalry have done admirably on the march north from Bloemfontein, being always a day or

two in advance or on the flank of the army, pushing forward at times against strong opposition. Not a gun or wagon was amongst their spoils. This was due in a large measure, no doubt, to the habit of the enemy of always intending to retire when night came, and sending their wagons off early, withdrawing their guns one by one, then jumping on their ponies and galloping off.

Men thoroughly familiar with the country on hardy ponies comparatively much fresher than yours, for they have been halted waiting for you, are very difficult to catch.

In my opinion, formed from observations in South Africa, as many men as possible should be transported, in war, either on horseback or by automobiles. Slow-moving infantry against a mobile force with an equally good gun is practically at its mercy.

A portable military railway, such as the Germans have, seems to be almost indispensable in war.

A successful frontal attack is not now one of the probabilities of war, consequently flanking movements done quickly and with as much surprise as possible must be undertaken, and slow-moving wagons act as leaden weights to the feet of an army.

It is under such circumstances as this that the value of automobiles and mechanical traction will be found, instead of herds of slow draft-animals which require food and rest. Both must be adopted in the future, and the army which has them first will be at an unmeasureable advantage over the others.

Telescopic sights on some of the rifles in each company would be a great advantage.

Nowadays, when lines are all deployed and even artillery will probably not be massed, the target will be much smaller than before, and good marksmanship with the best of sights necessary.

The effect of artillery fire against intrenchments is really more of a moral than physical nature.

High-angle fire, such as that of howitzers, seems to be the only way to reach men so protected.

The field artillery must, of course, be as mobile as possible, and it is a question of just how much increase of range should be sacrificed to gain that end.

I have seen the 12-pounder horse artillery guns, whose extreme accurate range is about 3,500 yards, halted and

remaining out of action, because they were outraged by the enemy's gun.

A field gun which can travel with the cavalry and make fairly accurate shooting at 4,000 yards, using fixed ammunition only, as loose powder is difficult to carry and is always a source of danger, appears to be the weapon wanted.

The Colt gun of .303 caliber did excellent work, and was preferred by many to the Maxim. The spokes of the wheels were wrapped with rawhide, shrunk on. Its disadvantage was its liability to jam. In the fight before Pretoria I saw one taken out of action for this reason. It might jam at the second shot, and then again it might fire 2,000 rounds before doing so.

One of the gunners with this battery, an ex-American cavalryman—and there were four others with the battery—told me his opinion was—I give it for what it is worth—that the belt in places was not stiff enough, and consequently the cartridge was not inserted accurately into the chamber.

As stated in previous reports, a gun firing could be located only by its flash, which at night is of course more visible than during the day.

In the siege of Mafeking, General Baden-Powell told me that he adopted the following scheme to prevent the flash of his guns being seen by the enemy: He fixed blankets in front of his guns and fired through them. As he stated, "It played blazes with the blankets, but they never could find the guns."

In reviewing the campaign ever since the British entered the Orange Free State, it is extraordinary how little the Boers accomplished against them, whereas, being all mounted and operating in their own country, they could have done so much in making Lord Roberts's advance uncertain and even hazardous. They may in the future split up into small raiding parties and adopt a guerilla mode of warfare. If they do this, it may be months before the war is actually at an end.

In the British army during war there exists what is called "local rank." An officer, no matter what his actual rank may be, may be given by the commander in chief any higher rank, which carries with it the command and emoluments of that rank. This rank is temporary and holds good only in that army commanded at the time by the commander in chief who grants it, but must be confirmed by the "secretary of state for war."

It enables the commander to select his men for important commands. As an illustration I will cite one case of many: R. G. Broadwood, a junior major in the Twelfth Lancers, was appointed a local brigadier general and given command of the third cavalry brigade, of which his own regiment, under its colonel, formed a part.

Explosive bullets were in many cases used by the Boers. I have seen a large number in the belts of the captured and wounded. I attach one to this report taken by me from a Boer belt at Pretoria. There were some twenty others like it in the same belt. It will be noticed that it not only has the lead core exposed, but the sides of the bullet are also split.

SPECIAL SERVICES.

Traction engines were used to great advantage at the different bases in the lines of communication and at the front in Natal. They can haul on ordinary country roads about 30 tons at a speed of 5 miles an hour. The same load it would take ninety of our large mules to haul at only about one-half the speed. It meant far greater economy in transport animals to the British, who in Africa used twenty small mules for the same load we pull with six larger ones, a great waste of mules I always thought.

In Natal traction engines were used with the moving army on all kinds of roads, crossing drifts in low water without difficulty. The fire box is about 3 feet from the ground. Some of the engines were fitted with a crane jib. The tread of the wheels is very broad. I believe traction engines, automobiles, and portable railways to be the most essential part of the transport equipment of an army.

BICYCLES.

Only a few bicycles, as given in Report No. 3, were used by the army. They are one of the available and perfected means of rapidly and cheaply transporting the soldier, and bicyclists should, I think, therefore, form an integral factor in every army.

In a country where the roads are generally excellent, as in England and on the Continent, I see no possible reason why a large bicycle corps should not always be well to the front, and, in conjunction with a large corps of cavalry, render most valuable service.

BALLOONS.

The balloon which was with Lord Roberts's forces gave most valuable assistance in locating the enemy and guns. It was many times hit by rifle bullets, but was never made to descend on that account. The engineer officer who made all the ascents informed me that even if hit in the top by shrapnel the balloon would descend only gradually.

The balloon, as stated in previous reports, was hauled inflated attached to a wagon. On the march from Bloemfontein it went 28 days inflated, made numerous ascents, and in that time only 500 cubic feet of gas had been added, although there was great difference of temperature between the days and nights, sometimes over 50°. Its greatest ascent was 1,400 feet, during the battle before Pretoria.

A balloon section—one balloon, personnel, and transport—is as follows, by regulation:

Three officers, 51 men, 42 horses, and 8 vehicles, but actually the section with us has only 40 men and 1 officer; 10 of these men remained back, when the balloon was entering into action, to make gas. The officers in charge informed me that 20 men was the minimum number with which he could get along.

I regret, as stated in previous reports, that I can not name the material of which the balloon is made. It is the intestine, I should say, of some animal, cut into 2-inch squares. From a balloon, and with a powerful telescope, is about the only way now you can locate your enemy.

ARMORED TRAINS.

The real value of armored trains is problematical. The British used them with varying success, there being less variety in the failures than in the successes.

It is so easy to derail a train, and almost as easy to smash it with artillery, that against a clever enemy an armored train appears to me to be a useless expense and waste of material.

HOSPITALS.

There were with the South African field force, as distinct from the Natal field force, twenty-two field, three stationary (intermediate between field and general), and nine general hospitals of the regular service, and eight volunteer ones—stationary and field, three hospital trains (permanently fitted), and four sick transports or hospital ships.

The different hospitals were by regulations supposed to contain the number of beds given below, but this number was always exceeded:

General hospital.....	520 beds.
Stationary.....	200 beds.
Field.....	100 beds.

In addition to these were the many hospitals at once started and fitted from local resources in the larger towns occupied by the army as it advanced.

The method of field attendance on the firing line is shown on the following page.

The distances varied according to the ground and severity of the action. A number of Indians were used as litter bearers and did very well, indeed. As stated in previous reports, the medical service, hospitals, and all pertaining thereto were generally admirable.

There was naturally much overcrowding in the stationary and general hospitals, due to the exceptionally large number of enteric patients.

The stationary hospitals, improved necessarily as the army advanced, were in some cases at first short of necessary supplies and attendants, but these were gotten up with as much promptness as the facilities of the one line of railway, over which all the other supplies of the army came, would admit.

I consider the army medical corps and all that pertains thereto, considering all the circumstances under which they labored, deserving of praise for their work in South Africa.

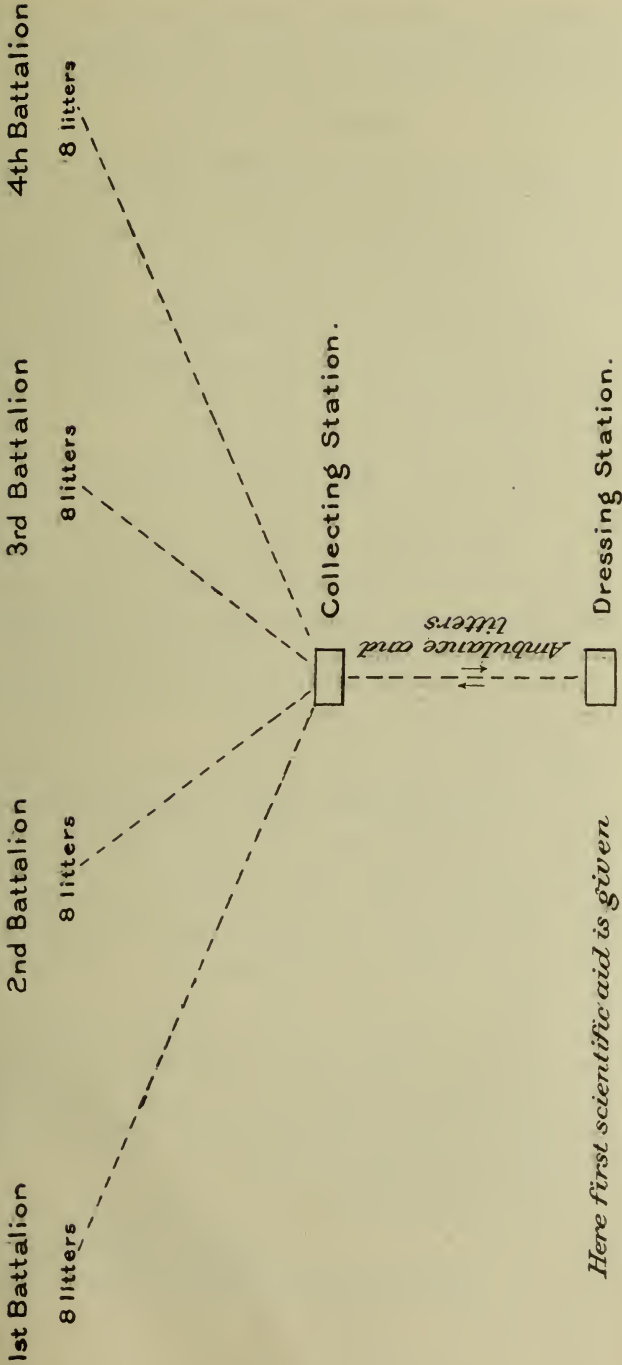
The great difficulties under which every department of the army worked, being 6,000 miles from England, and over such a large area of country with very limited railway facilities, must always be borne in mind in any critical review of the war.

Among the field ambulances were some sent from India, called dhanjibhoys, very light and mobile, and they did excellent work in quickly transporting the wounded and sick.

RAILWAYS.

The railways have been very well managed, controlled, and operated by the military authorities under trying and difficult conditions. In Cape Colony and Natal they were operated mainly by civilians under military control, but in Orange Free State and the Transvaal, they being roads captured from

Brigade.



Here first scientific aid is given

the enemy, the military authorities assumed entire control of management and operation. The old operators were mainly Hollanders and refused to work under the British.

TRANSPORT AND SUPPLY.

The supply park of 600 ox wagons originally was gradually increased as the army advanced to some 800 on arrival at Pretoria, making a total of over 25,000 oxen used for draft purpose. A transport company consisted of 50 mule wagons, with 20 mules, small ones, to each wagon. Each brigade had one company allotted to it, 10 wagons per battalion and regiment, and 10 for the staff and contingencies, making about 100,000 mules required by the forces advancing from the Bloemfontein-Thaba Nchu line alone.

With mechanical traction, which can be quickly destroyed before capture, the army could have moved not only more quickly, but with infinitely less expense in personnel and material. The manner of supply on the march was as follows; The empty mule or regimental transport wagons stopped and waited for section of supply park, which marched at night; as distances grew longer, one section of supply park pushed on, followed a march behind by a second section, and this one marching behind by a third section; the base of the supply park was always rail head.

On May 26 rations were by order reduced to three-fourths and forage to one-half, and many of the columns had to forage to obtain even this supply, and often without success. General Hamilton's column had no supplies of any kind for four days, except the little he could pick up in the immediate vicinity of his camp. He was unable to forage because he was at all times surrounded by the enemy. He was resupplied at Florida.

General French found in the country some flour, but from the Vaal River to Johannesburg got little or nothing else.

In closing this, my final report, I wish to express my great appreciation of the hospitality and courtesies extended to me by Her Majesty's Government while attached to its forces.

Very respectfully,

S. L'H. SLOCUM,
Captain Eighth Cavalry,
Military Attaché, South African Field Force.

EXTRACTS

FROM THE

REPORT OF CAPTAIN CARL REICHMANN,
SEVENTEENTH INFANTRY,

ON THE

OPERATIONS OF THE BOER ARMY.

EXTRACTS FROM REPORT OF CAPT. CARL REICHMANN.

Pursuant to Special Orders, No. 5, Headquarters Department of the Pacific and Eighth Army Corps, dated Manila, January 5, 1900, I left Manila January 10, 1900, en route for South Africa to observe the operations of the Boer army. I proceeded via Hongkong, Saigon, Singapore, Colombo, Djibouti, Diego Suarez (Madagascar), and Mozambique, reached Lourenço Marquez February 22, and left next morning by train for Pretoria, where I arrived on the morning of the 24th.

Djibouti is a new station erected by the Messagéries Maritimes, a French steamship company, on the south coast of the Bay of Tadjoura, about 100 miles west of Aden. As early as the Franco-Prussian war France had found it a great inconvenience to be dependent on Aden for a supply of coal, and although this new station is a private enterprise, its situation at the mouth of the Strait of Bab-el-Mandeb marks it at once as one of military importance. It is also the terminus of a railroad which a French syndicate is building to Harrar to direct the Abyssinian trade into French channels. The town is located on a sandspit, and consists of a business portion near which lies a native settlement, and of a northern portion connected with the business part by a causeway about 800 yards in length. This northern portion contains the offices, shops, and coal depots of the Messagéries Maritimes, the railway station and shops, the new residence of the Governor, and residences of officials and employees. The harbor is rather shallow, and ships have to lie half a mile or more from shore, but the harbor is being improved and a mole is under construction which will allow ships to come alongside and load direct from the cars. The approach is rather difficult on account of coral reefs surrounding the outlying islands and the sandspit on which lies the town. Water for drinking purposes is obtained from wells sunk in a dry river bed about $2\frac{1}{2}$ miles south of the town; it is carried on the backs of

donkeys in what used to be coal-oil cans, or in water barrels on two-wheeled carts drawn by horses or camels. There were several millions of small arms ammunition lying on the shore near the custom-house; there was no address or trade-mark on the boxes or marks on the heads of cartridges to identify them; they were about .45 caliber.

The merchants are mostly Greeks and the laborers Italians, and the comparatively many saloons seemed to do a good business. In the northern section of the town streets are laid out and a number of good houses have been built, but as yet there were not enough inhabitants to occupy them.

The climate is dry and hot the whole year round.

Diego Suarez, above mentioned, lies on the northeast coast of Madagascar, and has been in French occupation since 1856, I believe; it has always been the chief military and naval station of the island. It is a magnificent land-locked harbor, large enough for all the navies of the world; the entrance is invisible until one is close to it, and only 600 yards wide. The harbor as well as the entrance lend themselves admirably to artillery defense, and have been fortified. The weak point of this magnificent harbor lies in this, that it can be easily approached by land from the west where another bay indents the land and reaches within 4 miles of the harbor of Diego Suarez. The place is strictly a military station and contains few civilian inhabitants. At the time of my twenty-four hours' stay a small French cruiser was lying in the harbor. The French Government had decided to double the garrison of the island, perhaps in view of possible complications with England, and 4,000 troops were then on the way to Madagascar, a staff of about twelve officers having preceded them on the vessel which I boarded at Djibouti. The French military attaché, Captain Demange of the general staff, had reached Madagascar on the preceding boat from Marseilles to transact some government business before proceeding to Delagoa Bay, and boarded the *Gironde*, on which we made the journey together to Mozambique, Beira, and Delagoa Bay. He was accompanied by a private soldier as orderly, and was joined at Diego Suarez by a noncommissioned officer of cavalry (with valet) who had been sent him by the Government as his secretary.

On arrival at Lourenço Marquez I found that, having only my printed traveling orders from Manila and no state

document appointing me military attaché to the Boer army, I would have some difficulty with my baggage, which contained contraband of war, such as my saddle, pistol, sword, field glass, etc. I therefore called on the consul of the United States, Mr. W. Stanley Hollis, who immediately took me in charge, called with me on the governor general of Mozambique, on the governor of Delagoa Bay, on the Transvaal consul, Mr. Potts, arranged matters with the custom-house authorities, and attended to all the formalities required before my departure by train next morning.

On arrival at Pretoria I was lodged, together with other attachés, in the Transvaal Hotel as guest of the Government, and called upon by Mr. De Sousa, secretary of the commandant general, who presided over the Military Department while General Joubert was in the field, and by other high officials of the Government. These visits were promptly returned, and on the morning of Monday, February 26, I was presented by our consul, Mr. Adelbert Hay, to His Honor, President Kruger, who inquired if I had come to see the fight of the one against the five. On the preceding day, Mr. Rieckert, one of President Kruger's grandsons, presented himself to us as our official guide, and informed us that we would leave on the night of the 26th for Bloemfontein en route to the headquarters of General De Wet, near the southwestern border of the Free State; he also desired to know our wishes regarding subsistence, etc., and told us that the Government would furnish us with everything, including wagon transportation, saddle horses, and black servants.

Before giving an account of the active operations of the Boer army which I witnessed, it is, perhaps, not out of place to give a succinct statement of such of their institutions, political and military, which, however primitive, helped them to carry on a protracted and desperate struggle against one of the great powers of Europe.

At the head of the military department of the South African Republic stands a commandant general elected for five years by burghers entitled to vote for the First Volksraad. The candidate must be not less than 30 years of age, a Protestant, and of good character. He is responsible to the President and to the executive council; and he is also accountable to the First Volksraad for the conduct of active operations. There is no general staff; the entire office force at the

disposal of the commandant general are a secretary and ten clerks with a total salary of £3,487; the salary of the commandant general is £2,500.

In the Orange Free State there is no military department; the Volksraad appoints annually a commission of five or more of its members who, together with the President of the State, decide what is needful for the military and for the defense of the country. In time of war a commandant general may be elected for three months at a time by the commandants and field cornets, and he may be reelected. The commandant general is accountable for everything done under his direction during war. During the present war President Stein himself assumed the office of commandant general.

Available for service in the two republics are the "burgermacht," i. e., the citizens of the State, who in time of peace follow their civil vocations, and the State Artillery, a sort of small standing army.

The laws governing liability to military service are laid down in law No. 20 of 1898 for the South African Republic, and No. — of 1899 for the Orange Free State. Liable to military service are all burghers between the ages of 16 and 60, but in both republics the law permits substitutes provided they are as good as their principals and approved by the field cornets or commandants. If the substitute quits the service, the principal must either furnish another or report in person. During the war the power of commandants and field cornets to approve substitutes was taken away and conferred exclusively on the landdrosts (chief political officers of districts).

Colored persons may, in the Transvaal, be called out for military service, "to help pay the expenses of the war," or to work on the farms of citizens who have been called out on commando. Under "colored person" is understood a person whose father or mother belong to one of the native races of Africa or Asia, down to the fourth generation. In the Orange Free State the law does not make such prescription; it allows, however, of wandering and unmarried blacks being commandeered to the service of some burghers, who are required to pay him for his services not to exceed 10 shillings per month.

The burgher force is commanded by "krijgsofficieren" (war officers), called assistant field cornets, field cornets, and

commandants, and the commandant general. In the Orange Free State there is also a "hoofd commandant" at the head of a force consisting of several commandos; then there is a provisional commandant when the proper incumbent is unable to place himself at the head of the force. During the war a number of offices were created by executive order which are not provided by law. There was an acting commandant general (on the death of General Joubert, General Louis Botha was appointed by President Kruger "waarnemend commandant general" until one should be elected in the constitutional way), there was an assistant commandant general, a number of "vecht generals" (fighting generals, i. e., generals who exercised chief command in different theaters of war) and a number of "opper officieren" (superior officers), many of whom toward the end of the war, were without command. For administrative purposes a "laager commandant" is elected in each camp, assisted by a corporal.

In the South African Republic the commandants received no salary in time of peace; in most cases they held at the same time the office of commissioner for natives, which brought in a good income in fees. When the law declared that no one could hold these two offices together, or those of commandant and member of the Volksraad, many resigned the office of commandant as the one least remunerative. In time of war, commandants received 15 shillings per day. In 1899 the budget for the first time allows £350 for commandants and £300 for field cornets per year. In the Orange Free State the hoofd commandant, while in the field received £1 per day, and commandants 10 shillings. The provisional hoofd commandant also received 10 shillings per day while so acting.

In cases of field service, where there is no general mobilization of all the burghers, the following are exempt from active service:

- Members of the Volksraad and of the executive council.
- Salaried civil officers.
- Church officials and teachers.
- Students inscribed at least one month previous to departure of the commando.
- The sole support of a widow.
- Men physically disqualified as per certificate of registered surgeons.

Employees of certain companies specified by law, and of firms under contract with government for delivery of certain things within a fixed time.

Fathers who have at home more than one unmarried son whom they must equip for field service.

Immigrants during the first two years of their sojourn in the country, after which they must render such service as is not incompatible with the treaties with their home countries.

Colored persons in the service of masters.

Officers are elected by majority vote of enfranchised burghers, assistant field cornets and field cornets by the burghers of the "wyk" (territory under administration of field cornet), commandants by the burghers of the district. All burghers over 16 years of age are entitled to vote. The election usually takes place on an open piece of ground; each candidate steps to one side, whereupon the burghers divide, each going to his candidate. The one having the largest crowd around him is elected. In the Transvaal commandants are elected for five years, field cornets for three, and both may be reelected.

The election of officers being in vogue in part of our militia it is unnecessary to point out the evils of this system beyond stating that all the evils inherent in it existed in the Boer army, and that the officers were the servants, not the masters, of their commands. Politics, of course, played a great rôle in the election of officers, and the families prominent in a political way furnished a number of officers corresponding to their political importance. Some of these were so bad that everybody realized the necessity for their removal, yet their political importance made it impracticable to remove them, as otherwise their commands might have become dissatisfied and given expression to their feelings by simply going home. To be sure, there were laws in existence to enforce discipline, but the government had made the mistake of not enforcing them from the beginning when things were going favorably, and did not dare to change its policy when things were going the other way. To the military mind the degree to which inferior officers carried their self-will is inconceivable. To quote but one instance. In November, 1899, a council of war had decided upon measures which would deliver Ladysmith into the hands of the Boers; all the details had been arranged, but the lower officers, on receiving their instructions, held a

council of war of their own and decided that the task was too difficult and dangerous and would not be executed; moreover, they did not inform their superiors until twenty-four hours later, which made the attempt on Ladysmith abortive.

The functions of officers are as follows: Field cornets are expected to keep order in their "wyken," commandants are charged with the suppression of insurrections of colored people; they call out their commandos for the quelling of risings among white people, for the defense of the country, and for warfare against an external enemy, in which case the commandant general has supreme command. Field cornets keep the registers of burghers liable to service under three categories.

Youths under 18 and men over 50.

Men between 18 and 34.

Men between 34 and 50.

(In the Free State young men under 18 are free from service.)

These lists must be sent to the commandant general, who appends them to his annual report; they are, however, very incomplete and full of error, which is readily explained by the fact that there are no civil registers and that names are simply entered on the parish records.

At the outbreak of the war these lists stood as follows:

TRANSVAAL.

District.	Wyk.	18 to 34 years.	34 to 50 years.	Under 18 and over 50 years.
Bethal	No. 1	260	111	55
	No. 2	188	120	47
		448	231	102
Bloemhof	Boven Vaalrivier	193	76	64
	Onder Vaalrivier	95	52	37
	Hartsrivier	265	115	51
		553	243	152
Carolina	No. 1	110	66	33
	No. 2	60	31	17
	No. 3	104	56	29
		274	153	79
Ermelo	No. 1	283	144	39
	No. 2	135	81	29
	No. 3	81	53	17
		499	278	85
Heidelberg	Suikerboschrand	387	222	122
	Roodekoppen			
	Kliprivier	528	249	70
	Hoogeveld			
		915	471	192

TRANSVAAL—continued.

District.	Wyk.	18 to 34 years.	34 to 50 years.	Under 18 and over 50 years.
Krugersdorp	No. 1			
	No. 2	320	165	105
	No. 3			
		320	165	105
Lichtenburg	No. 1			
	No. 2	580	268	157
	No. 3			
		580	268	157
Lydenburg	Dorp	81	37	29
	Krokodilsrivier	196	148	70
	Steenkampsberg	196	87	34
	Ohrigstadsrivier	78	52	26
		551	324	159
Marico	Malopo	85	48	37
	Klein Marico	265	151	113
	Groot Marico	189	72	55
	Boschveld	131	83	36
		670	354	241
Middelburg	Mapochsgronden	117	63	95
	Olifantsrivier	344	180	120
	Steenkoolspruit	209	60	25
	Seylonsrivier	169	98	74
	Middelburg	287	162	78
		1,126	563	392
Piet Retief	No. 1	121	86	71
	No. 2	91	34	29
		212	120	100
Potchefstroom	Dorp	275	152	31
	Gatsrand	287	141	100
	Boven Mooirivier	240	110	88
	Boven Schoenspruit	349	159	98
	Onder Schoenspruit	479	252	175
	Vaalrivier	248	119	73
		1,878	936	565
Pretoria	Dorp	1,200	350	100
	Krokodilrivier	270	136	86
	Witwatersrand	302	120	94
	Aapjesrivier	188	105	55
	Bronkhorstspuit	112	83	39
	Elandsrivier	248	140	118
	2,320	934	492	
Rustenburg	Elandsrivier	255	126	84
	Zwartuggens	493	232	162
	Hoogveld	183	144	81
	Hexrivier	437	194	145
		1,368	696	472
StanGerton	Waterval			
	Blesbockspruit Kliprivier	646	368	116
		646	368	116
Swazieland		181	110	41
Utrecht	No. 1	95	70	53
	No. 2	56	35	21
	No. 3	166	81	47
		317	296	162

TRANSVAAL—continued.

District.	Wyk.	18 to 34 years.	34 to 50 years.	Under 18 and over 50 years.
Vrijheid	No. 1	159	82	76
	No. 2	76	71	34
	No. 3	159	83	37
	No. 4	87	44	33
		481	283	180
Wakkerstroom	No. 1	78	225	48
	No. 2	294	142	76
	No. 3	212	98	81
		584	465	205
Waterberg	Nijlstrom			
	Zwagershoek	455	184	93
	P. P. Rust			
		455	184	93
Wolmaranstad	No. 1	168	83	64
	No. 2	279	101	77
		447	184	141
Zoutpansberg	Marabastad	248	130	106
	Rhenosterpoort	225	90	82
	Houtboshberg	95	59	31
	Spelonken	108	56	49
		676	335	276
Goldfields	Barberton	52	54	26
	Johannesburg	463	300	105
		515	354	131

Recapitulation.

District.	18 to 34 years.	34 to 50 years.	Under 18 and over 50 years.	Total registered for the field.
Bethal	448	231	102	737
Bloemhof	553	243	152	680
Carolina	274	153	79	427
Ermelo	499	278	85	963
Heidelberg	915	471	192	2,375
Krugersdorp		900		1,317
Lichtenburg	580	268	157	993
Lydenburg	551	324	159	1,125
Marico	670	354	241	984
Middelburg	1,126	563	392	1,550
Piet Retief	212	120	100	301
Potchefstroom	1,878	936	565	1,249
Pretoria	2,320	934	492	2,832
Rustenburg	1,368	696	472	2,163
Standerton	646	368	116	890
Swazieland	181	110	41	271
Utrecht	317	296	162	492
Vrijheid	481	283	180	731
Wakkerstroom	584	465	205	1,179
Waterberg	455	184	93	284
Zoutpansberg	676	335	276	1,017
Goldfields	515	354	131	2,013
Wolmaranstad	447	184	141	838
	15,696	9,050	4,533	25,411

ORANGE FREE STATE.

District.	Males.	18 to 60 years.	Registered for the field.
Bloemfontein	4,413	2,427	1,253
Winburg	4,063	2,234	1,616
Kroonstad	4,228	2,325	2,068
Ladybrand	3,718	2,044	749
Ficksburg			235
Bethlehem	2,974	1,635	1,142
Mowka	498	273	98
Fauresmith	2,979	1,638	988
Harrismith	1,630	896	751
Heilbronn	3,321	1,826	1,857
Vrede	1,757	966	1,038
Boshof	2,089	1,148	780
Rouxville	2,030	1,116	528
Hoopstad	1,621	891	494
Smithfield	1,634	898	299
Bethulie	1,166	641	337
Wepener	1,121	616	253
Philippolis	743	408	209
Jacobsdal	587	322	139
	40,571	22,314	14,834

In addition to the foregoing, colonials and foreigners were registered as follows:

Colonials:

Cape Colony	1,704
Natal	43
Griqualand	22
Bechuanaland	271
Western border	319
	2,359

Foreigners:*

Russia and Germany	311
Holland	17
France	75
Italy	8
America	40
Scandinavia	34
Others	249
	734
	3,093

*The number of foreigners serving with the Boers has generally been overestimated. Some foreigners were no doubt registered under "mixed detachments from both States," and some may not have been registered at all. The total number of foreigners may have been as much as 1,000 or 1,200.—C. R.

According to the figures of the identity department (which will be described later on), the following had been in the field at one time or another up to the end of May, 1900:

From districts of the Transvaal.....	25,411*
From districts of the Orange Free State.....	14,834
Mixed detachments from both states.....	8,925
Colonials.....	2,359
Foreigners.....	734
	52,263

These figures do not represent what were in the field at one and the same time; many were on furlough, many were not called out until late; those sick, killed, or wounded must also be deducted, as well as prisoners of war. After the British invaded the republics, many went home to their farms. It may be assumed that the maximum strength in the field at any one time was about 35,000, and that this figure was more nearly reached at the beginning of the war.

When troops are required for temporary service, entire commandos are, as a rule, not called out. The commandant general consults with the commandants as to the steps to be taken, and then directs a certain number of men from certain districts to be called out, as happened frequently whenever some Kaffir chief became unruly. Thus in 1898 quota were called for as follows:

Pretoria.....	150 men.
Potchefstroom.....	200 men.
Waterberg.....	100 men.
Heidelberg.....	200 men.
Standerton.....	200 men.
Zoutpansberg.....	200 men.
Artillery (with guns).....	100 men.

Subsequently, additional men were required and certain commands directed to furnish the required quota. The commandant, on receiving the order, apportions the numbers to be furnished by each wyk of his district and directs the field cornets to make the details from their lists. The field cornets then send out a number of men on horseback, each with a list of burghers to be summoned with time and place of assembly.

* See "Recapitulation," page 103.

EQUIPMENT.

In the Transvaal every man called out must be provided with proper clothing, a rifle in good order with not less than thirty rounds of ammunition. The burghers provide their own wagon transportation, several of them clubbing together for the purpose, but it is prescribed that the burden of furnishing this transportation shall be lightened as much as possible.

In the Orange Free State every white man between the ages of 18 and 60 must be provided with a horse, saddle, bridle, rifle in good order, at least half a pound of powder and thirty balls, or an equivalent number of cartridges, and with provisions for eight days.

Ever since the Jameson raid the burghers were provided by the Government with a fixed number of cartridges, usually one hundred. At least once a year assistant field cornets and field cornets must make an inspection of the ammunition issued in their wyk and make report to the landdrost; neglect to make the inspection will bring on the delinquent a fine of £10 and even dismissal. The remainder of the burghers' equipment has also to be inspected at least once a year, and in the chief towns of districts twice a year. As regards war material, a field cornet in the Free State has authority to commandeer, in case of necessity, within his own wyk, wagons, draft horses, tents, riding horses, rifles, etc., but these articles may not be commandeered from those who are themselves ordered into the field, from one who has none, or from one who has but one each of the articles; the practice is to commandeer them from those under age and those not ordered into the field.

When "Krijgswet" is proclaimed, i. e., when a general mobilization is ordered and large quantities of materials are required, commissions are appointed which in this war, it is believed, gave rise to much abuse. It was difficult to ascertain precisely what every one needed, and hence many allowed themselves to be fitted out by the Government who were able and under the law should have done so at their own cost. In Pretoria flourished a trade on a large scale in government property, the Jews acting as middlemen. The principal commissions appointed in this war were the "proviant commissie" and the "krijgskommissariat."

The proviant commissie was charged with the purchase and issue of flour, corn, potatoes, coffee, sugar, oxen, sheep, etc., for the men; oats, mealies, and mannah for the horses, also horses, mules, and draft oxen. The commission also bought saddles although they properly came within the scope of the equipment commission ("krijgskommissariat"). The commission was assisted by subcommittees in the outer districts and in the field; a special subcommittee bought horses which at the beginning of the war brought £18 to £20; later on in the war, beginning of May, 1900, the expenditures of the committee became heavy, whereupon the Government proceeded to commandeered horses.

Supplies required by the ambulances and hospitals were in the beginning purchased by these institutions themselves, subsequently by a special commission appointed for that purpose.

For the transaction of business the proviant commissie advanced cash whenever necessary for the purchase of clothing, saddles, and horseshoes; when it was a matter of large sums the treasury department, the chief inspector of offices, and the chief committee had to be consulted.

During the siege of Kimberley the commissie instituted a system of wagon transportation to that place in combination with the krijgskommissariat, also advancing the money for the purpose. A large number of wagons plied between the besieging force of Kimberley and the nearest commissariat on the railroad. At first the commissie also undertook to equip foreigners, who came as volunteers, with horses, saddles, and bridles, and to furnish them quarters, but later on a special commission was formed which supplied the foreigners with every article required. In addition the commissie provided food and fodder for transient men and horses. It also furnished the authority for feeding families of men on commando, stragglers, and prisoners of war.

At the beginning of the war the following were the instructions issued for feeding families:

The Government directs that only such families be succored as are in actual want. Issuing committees and the public are requested to cooperate in order that the provisions may be made to last as long as possible and thus to support the efforts of the Government. Any family possessing wagons, oxen, etc., shall not receive government aid. The scale

established by the Government, and which must be strictly adhered to by the distributing committees is as follows:

- 1 pound of meat for every grown person per day.
- $\frac{1}{2}$ pound of meat per day for every person under 12 years of age.
- 1 tin of meat of 2 pounds for a grown person per week.
- 1 tin of meat of 1 pound for persons under 12 years.
- 1 pound of coffee for every three persons per week.
- 1 pound of rice, or mealy, or mealy flour for one person per week.
- 1 pound of salt per person per week.
- 1 pound of sugar per person per week (two children under 12 equal one grown person).

Distributing committees must see that the families are provided in the wyk to which they belong, and that their lands are plowed and sown; the blacks are provided with provisions from the funds of the commissioner of natives. Detailed list of families requiring assistance must be sent in.

This system soon gave rise to irregularities, and in January the state secretary issued a circular calling attention to the fact that clothing and provisions were being supplied to families not in actual want, etc., and that an investigation would be made into the abuse and restitution demanded, etc. As such an investigation could be made only after the war, the effect of the circular is doubtful.

The equipment commission ("kommissie voor uitrusting," also known as the krijgskommissariat) consisted of three persons, the presiding member being known as the "krijgskommissaris" or war commissary. A separate commission existed for the western frontier. The chief functions were the purchase of clothing, blankets, shoes, hats, underclothing, saddles, bridles, carts, tents, and harness, and the repair of saddles, bridles, carts, and harness. The commission cooperated with the proviant kommissie, as previously stated. These two commissions were the main agencies that supplied the needs of the army in the field and were assisted by a number of subcommittees and persons directly or indirectly connected with them. There was a special commission for the valuation of requisitioned goods and for their acceptance, to which came later such captured property as found its way into the hands of the Government, as for instance the great stores of supplies captured at Dundee. However, there seems to have been no thorough system of accountability and auditing.

Supposing a man ordered out by his field cornet finds himself lacking in everything except rifle and cartridges; he goes to the field cornet and gets from him an order on the proviant kommissie for a horse, saddle, and bridle; the proviant

commissie gives the man an order for a horse on the official who has charge of the government horses; the man signs a receipt before receiving the horse, and then gets an order from the commissie to have the horse shod; in similar manner he gets the saddle and bridle. The man also gets from the field cornet an order on the krijgskommissariat for an equipment, clothing, blankets, etc. The commission gives him an order on the storekeeper who has charge of government equipment (bought or captured); if none is on hand he receives an order on a merchant, and supplies himself in this way. An equipment consists of coat, trousers, two sets of underclothing, two pairs of socks, two blankets, and one pair of shoes.

Other commissions were those for "kost" (subsistence), for public order and safety, and for the examination of applications from British subjects to remain in the country.

MILITARY TAX.

In time of peace foreigners owning property in the state had to pay a military tax which in 1897 netted £3,520 and in 1898 £1,060. In that year it was resolved to levy a uniform war tax of £10 on a lot and £20 on a farm, but the scheme was not carried out in 1899, though there were nevertheless collected in the districts the following amounts:

Pretoria	£2,000
Potchefstroom	1,858
Rustenburg	1,100
Lydenburg	13,321
Carolina	70
Middelburg	150
Waterberg	14,723
Zoutpansberg	8,755
Heidelberg	2,300
Wakkerstroom	200
Utrecht	238
Marico	1,025
Lichtenburg	339
Bloemhof	390
Standerton	171
Ermelo	1,650
Piet Retief	250
Vryheid	500
Krugersdorp	700
Wolmaranstad	178
Bethal	82

£50,000

In the same year the Government decided to set aside annually a certain amount as a war fund; the sum so set aside in 1899 was £110,000, which was put up at 3 per cent interest.

The law also recognizes a military tax on those exempt from service, the amount being regulated by the field cornets according to circumstances, the tax not exceeding £15. During the war this tax was levied in a few districts only. In the Orange Free State in time of war persons residing abroad are required to furnish a proper substitute, or pay a tax of £20 for the first three months and £10 for every subsequent like period.

The law also recognizes reimbursement for property lost by war, items of that kind appearing in the appropriations from 1894 to 1896, and although not entitled to pay while in the field, the burghers managed to get special legislation according them payment for service performed in the field. Thus in the law of May 25, 1895, there figures the amount of £60,000 for those who served in the Malaboeh expedition of the preceding year; the lists bore 4,224 names, each to receive £13, but it was subsequently found necessary, in consequence of defective registration, to appropriate an additional amount of £1,353.

FINES.

The articles of war (*krijgswet*) lay down certain punishments for failure to obey commando order. In the Free State any person who, having been ordered out, quits his commando without leave in writing from his commanding officer, may be fined not less than £10 and not more than £37 10s., and in addition may be sent back to his commando by the *landdrost*. If the fine is not paid, he may be imprisoned not more than three months, which punishment he shall undergo on the expiration of the commando. In the *Transvaal* there is prescribed among other things: "When the commandant general fails to obey the orders of the Government, he shall be fined not less than £50 and not more than £500, according to circumstances; if the fine be not paid, he may be imprisoned eighteen months, and, if still recalcitrant, removed from office."

In consequence of the loose laws and the looseness of their enforcement, the men called out could do very much as they

pleased. The newspapers published instances of members of certain families that were exempted or ordered on commissariat duty, whereas the less fortunate were at once called on for commando duty. This is particularly true of the latter part of the war, though at the beginning of the war many were also allowed to remain at home. Nobody ever knew how many men were in the field and how many were at home, as appears from many official telegrams from high officers to the Government and vice versa.

One of the consequences of lack of discipline was the granting of many furloughs. But, as at the commencement of the war the Government had failed to enforce discipline, it was unable at a later date to carry out punishments and fines threatened in the numerous circulars and orders issued. The Boer does not like to stay away long from wife and family; had the matter of furloughs been regulated from the beginning and strictly carried out, things might have gone better. In going toward the encampments of a considerable Boer force one would invariably meet a number of men on their way home who made no bones about not having furloughs. On the other hand it resulted in this, that families of burghers came into the field and camped with or near the commandos of their husbands and fathers, and the most energetic steps of the Government were required to stamp out that practice. Field cornets and commandants began to exceed their authority in issuing furloughs; many men got furloughs in order to take captured cattle home to their farms; others claimed their families were not properly provided for, etc. What could Government orders effect when Generals Joubert and Cronje themselves kept their families with them in the field?

In the Orange Free State President Stein sought to minimize the evil by systematizing the matter of furloughs in a proclamation of April 7, the essential features of which were as follows:

Ten per cent of the men are to have furloughs; a furlough officer is detailed in every camp, who makes lists of all men belonging to the command, the field cornets being required to furnish the requisite information; the furlough officer establishes furlough lists, precedence being established by lot, and those men being first allowed to draw who have not yet had a furlough; furlough officer makes a list according to lot and notes duration of furlough and dates of departure and return;

persons arriving after the completion of the lists are placed at the foot of the list, according to date of arrival; the furlough officer issues and signs the furlough, noting thereon duration as per form appended to the proclamation; once furloughed, a man must await his next turn before he can have another, but furloughers may exchange places with the permission of the furlough officer; duration of furlough is six days, exclusive of travel both ways; absentees without furlough, or those overstaying furlough, are subject to fine of £37 10s. or imprisonment not exceeding three months, with or without hard labor, and forfeit privilege of furlough. The furlough officer is required to report to the public prosecutor of the special military court the names of those who absent themselves without leave or overstay it; the President is to appoint a furlough inspector for each army detachment, who is responsible to the President and sees that lists are properly kept and furlough officer discharges his duties properly, and he also sends monthly lists of furloughs granted to the hoofd commandant of each army detachment, field cornet, commandant, and to the President. The President alone to give leaves to officers. Violations of this proclamation not otherwise specifically mentioned are to be visited by a fine of £10 or imprisonment for one month, fine to be leviable on property of delinquent. The proclamation to take effect fourteen days from promulgation.

This proclamation somewhat abated the evil but failed to eradicate it. Men would overstay their leaves, or alter dates on furlough, etc., and while 10 per cent were legally absent there were many others who were illegally absent. The failure to enforce discipline from the beginning bore fruit in many ways and could not be remedied subsequently.

MILITARY JUSTICE.

The military laws both of the Transvaal and the Free State provided for trial by court-martial or other court for military offenses. In the Free State the military court was called "krijgsraad," which term has, in the Transvaal, the meaning of council of war. However, the laws were not applied, or, when they were, there was always a way found to frustrate their execution. An apt illustration is furnished by an occurrence before Ladysmith. In December, 1899, the British one night blew off the muzzle of a Long Tom and carried off a hand

Maxim and on the succeeding night blew up a howitzer. President Kruger demanded investigation and punishment of the guilty through whose carelessness the British had succeeded in accomplishing the damage named. Although the telegram is couched in the President's sternest tones, he was told in reply that the positions were too extended to convene a court-martial. A few days later some of the guilty were suspended by their immediate officer, who thereupon was memorialized by the Heidelberg commando to rescind the suspension and bring the matter before a court-martial; he was asked to come and address the burghers, which he did in the presence of a member of the Volksraad, who, together with a field cornet, asked that the memorial be accepted, etc. Two of the guilty officers were brought before a court-martial but remained in office; one of them was afterward arrested for high treason. And so on throughout the war no steps were taken to enforce discipline by means of the machinery provided by law.

In the Orange Free State, where the patriotic President Stein sought to bring some system and discipline into the army, a proclamation was issued March 29, 1900, which provides for a higher and a number of lower military courts.

The higher court is to consist of a president learned in the law and two assessors sitting at the seat of government or such other place as the President may direct; the court has jurisdiction of the graver military offenses such as desertion and espionage. The punishing power is the same as that of the civil high court, death sentence needing to be confirmed by the President.

The lower military court is composed like the higher court; it sits near an army detachment and is competent to try minor military offenses, the place of sitting being fixed by the president of the court upon consultation with the hoofd commandant of the particular detachment. The punishing power extends to a fine of £10 or imprisonment for three months with or without hard labor, the fine being leviable on property. Subsequently the punishing power was enlarged and made the same as that of the landdrost's court. Appeal to the supreme court was admissible.

In both kinds of military courts the procedure is to conform to the prescriptions laid down by the executive council of October 30, 1899. Before the higher military court the state prosecutor prosecutes in person unless specially prevented,

when he may send a representative; he also appoints the prosecutors before the lower military courts.

In some encampments there was a camp commandant primarily charged with the issue of ammunition, food, clothing, etc., and who had a certain military jurisdiction the extent of which could not be ascertained. The usual punishment for kaffirs was twenty-five lashes; for burghers "zadelpack" and "kannonenrijden". The burgher condemned to the zadelpack was compelled to parade the camp with saddle and bridle around his neck "to the public scandal"; kannonenrijden consisted in sitting astride the barrel of a field piece for some hours.

ARMAMENT.

Although still fine shots, the Boers are no longer the excellent marksmen they used to be. Formerly a boy of 12 years was given three cartridges to kill and bring in a buck; at 13 he got two cartridges for that purpose, and at 14 but one. In the 80's, however, as game decreased, the marksmanship also diminished. Accidents have been numerous in this war, and the expenditure of ammunition sometimes enormous.

The annual reports of the commandant general give some idea of the kind and number of arms imported. In 1892 he reports that of the 11,000 rifles bought by the Government 9,555 had been sent into the districts, 5,277 being sold for cash, 3,568 on credit, and 175 issued gratuitously; 525 were remaining on hand in the central magazine. The price of the rifle was £4. As many burghers were reported unable to purchase the arms, a gratuitous issue on certificate of field cornet and landdrost was recommended. In 1893, upon the request of the burghers some Guedes rifles (an Austrian pattern) were imported and 11,000 Martini-Henry rifles. In 1894, 13,000 Martini-Henry rifles and 3,000 Guedes rifles were imported, 11,188 of the former being sent out into the districts. Notwithstanding these large importations, General Joubert reports in connection with the Jameson raid that not one-third of the burghers were armed. Subsequent reports say less and less about armament. In 1897 General Joubert reports "We are still proceeding with a better armament of the burghers and I hope soon to be able to report that our burghers are armed."

In fact, at the beginning of the war the armament of the burghers left little to be desired. In the first place there were

enough rifles of all kinds in the Transvaal to arm the burghers three times over. Then the new rifle was the Mauser, which, though at first lacking in popularity, gave splendid results in the war. Most of the Mauser rifles were issued between May and September, 1899, in exchange for Henry-Martini's. During the war some eight or nine thousand rifles and carbines were issued, a depot for that purpose being established at Elandslaagte.

The subjoined table shows the arms on hand, issued, etc.

System.	In Pretoria magazine.	Issued May 1 to Sept. 30.	Issued during war.
Mauser rifles -----	26,785	23,008	3,777
Mauser carbines -----	6,034	1,336	4,698
Martini-Henry rifles -----	3,190	-----	-----
Westly-Richards rifles -----	8,954	3,226	-----
Westly-Richards carbines -----	826	125	-----
Guedes rifles -----	2,562	820	1,742
Lee-Metford rifles -----	1,482	-----	-----
Krag-Jorgensen -----	(*)	-----	-----
Webley pistols -----	6,000†	-----	4,000
Mauser pistols -----	(*)	-----	-----

* Unknown.

† About.

The Transvaal also furnished a number of arms for the Orange Free State, the Cape Colonists, etc. By December 20 the supply on hand was exhausted. Bayonets were never issued or used. After the destruction of the howitzer before Ladysmith on December 12, 1899, the commandant of the Lydenburg commando telegraphed for 100 bayonets for guard duty at night, but only 13 were forthcoming from the Johannesburg fort.

In the Orange Free State every burgher is required to have a rifle in good condition, or he may purchase one from the Government at cost price. This rifle is branded O. V. S., and bears a number which is entered in a book against the purchaser's name. Field cornets must verify and inspect the rifles once a year in the country districts and twice in the chief towns, or as often as the President may direct. As in the Transvaal, the Henry-Martini had been chiefly in use in the Orange Free State, though before the outbreak of the war the Mauser had been adopted as the national arm; a few thousand were on hand when the war broke out, which were supplemented with Mauser and Guedes rifles furnished by the Transvaal.

So far as the arms came under my observation they were excellently kept; every Boer had a wiping cord in his pocket; the ordinary use of the ejecting rod was as skewer for broiling meat before the camp fire.

In the Transvaal the trade in ammunition was reserved for the state powder magazines established in Barberton, Bloemhof, Christiana, Carolina, Ermelo, Heidelberg, Klerksdorp, Krugersdorp, Lichtenburg, Lydenburg, Middelburg, Wakkerstroom, Nijlstrom, Potchefstroom, Pretoria, Pietersburg, Piet Retief, Ross Senekal, Rustenburg, Standerton, Utrecht, Volksrust, Vrijheid, Zeerust, while arrangements for supplying burghers with ammunition were also made at Bocksburg, Leydsdorp, P. P. Rust, Steynsdorp, and Schweizer-Renneke. The price of ammunition was fixed as low as possible. The executive council decreed September 22, 1896, that ammunition should be sold with 15 per cent added to the purchase price, which subsequently was reduced to 10 per cent.

The administration of these powder magazines or depots seems to have left much to be desired, as it devolved on the landdrosts or their clerks, for whom the extra salary of £12 per year was not a sufficient inducement to act as ordnance storekeepers in addition to their other duties.

The subjoined table gives some idea of the sale of arms and ammunition in the Transvaal.

At the outbreak of the war a good stock of ammunition was on hand in the Transvaal; every burgher was required to have thirty rounds on hand and subsequently one hundred rounds per man were distributed. The ammunition was chiefly stored in the central depot in Pretoria; how much there was in other magazines is not known. The stock of ammunition in Pretoria was as follows:

- 17,000,000 Mauser cartridges.
- 10,500,000 Martini-Henry cartridges.
- 10,500,000 Guedes cartridges.
- 1,000,000 Lee-Metford cartridges.
- Several millions of other ammunition.

During the war there were manufactured 368,500 rounds of Martini-Henry ammunition. About the beginning of June, when the Government moved to Machadodorp, the stock of ammunition was also removed there, and consisted of 1,000,000 Mauser cartridges, 2,500,000 Martini-Henry cartridges, and 6,500,000 Guedes cartridges. While at Machadodorp I was told that about 5,000,000 rounds had not been removed from Pretoria. There were also on hand various kinds of Mauser cartridges of expanding patterns, which were never issued, the Government as well as the commandant general having issued repeated and stringent orders to that effect. The few that may have found their way into the hands of troops, were probably issued by mistake, as in the hurry and confusion of retreat and evacuation of depots the ammunition may have become mixed. This does not refer to British dum-dum bullets captured by the Boers and used against their enemy from captured British small arms. Most of the Mauser ammunition bore the stamp of the German ammunition factory at Karlsruhe. That manufactured in 1896 had shorter necks than the other; in consequence, the shell failed to fill the chamber completely; the result was that these shells burst and that the bullets changed their form, especially their rear portions, which sometimes remained in the barrel. An attempt, more or less successful, was made to correct the shortcoming by greasing the bullets; the lubricant used was of green color which promptly gave rise to a British outcry that the Boers used poisoned bullets, which of course was not true, as the composition used was perfectly harmless.

On January 1, 1897, the Orange Free State had on hand 628,000 Mauser cartridges and 3,500,000 Martini-Henry ammunition, and 1,000,000 had been ordered. In June of the same year the Volksraad appropriated £7,200 for the purchase of another million. The existing regulations required a supply on hand in the depots of 4,000,000 rounds. In June 1899 a further appropriation was made for the purchase of more ammunition.

Among troops where no discipline was enforced, it is natural that the expenditure and waste of ammunition were great; the burghers traveling on a train would shoot out of the windows at the ant heaps in the prairie, notwithstanding the fact that warnings were posted in every compartment of every car. Order after order was issued by the Government and by general officers, all in vain. As we proceeded by train from Pretoria to Bloemfontein, en route to General De Wet's headquarters, this shooting out of the car windows was going on all day; the warning posted in the cars stated that the first shot would cost £5 and the next twice that amount, and so on, and that the culprit would be reported by the conductor to the officers of the law at the next station. Our official guide, a grandson of President Kruger, tried to stop the shooting, but came back disheartened, saying the men claimed the privilege of shooting that day because it was Majuba day (February 27). There was no importation of munitions of war after hostilities had broken out, and the Government eventually went to work to establish ammunition factories. This work, however, was taken in hand too late; the factory was located in Pretoria, and before much ammunition had been manufactured, the British came and took the city, depriving the Boers of their factory, a heavy blow.

EXERCISES IN TIME OF PEACE.

Realizing the necessity of complete armament of the burghers for war purposes, and of good marksmanship, General Joubert's constant endeavor was to keep a strict control of all arms and to increase the marksmanship by competitive firings. In 1893 he complains that burghers had sold their arms, or taken them outside the State, or given them to Kaffirs, and endeavors to get a law passed for a strict control of the rifles sold and issued. But though he renewed his

endeavor year after year, he accomplished little toward a stricter control. The burghers had grown up under an archaic government, hated restraint of any kind, and wanted to do with their rifles as they pleased. The efforts to increase marksmanship by means of competitive firings were more successful, for, in 1896, after the Jameson raid, the Volksraad appropriated £3,000 and in subsequent years £6,000 for distribution as prizes in rifle contests, to be apportioned to districts according to the number of men liable to service.

In 1898 the distribution and number of those liable for service were as follows:

	Number of men liable to service.	Amount of prize money.
Bethal.....	781	£90
Bloemhof.....	940	103
Carolina.....	506	64
Ermelo.....	862	82
Heidelberg.....	1,578	280
Krugersdorp.....	900	103
Lichtenburg.....	1,005	120
Lydenburg.....	1,034	130
Marico.....	1,265	132
Middelburg.....	2,081	190
Piet Retief.....	432	42
Potchefstroom.....	3,379	399
Pretoria.....	3,746	397
Rustenburg.....	2,536	245
Utrecht.....	975	70
Standerton.....	1,130	75
Vrijheid.....	944	102
Wakkerstroom.....	1,254	115
Waterberg.....	730	84
Wolmarastad.....	772	42
Zoutpansberg.....	1,287	135

In addition to the cash just specified, each wyk received from the Government, for competitive firing, 80 pounds of powder, 50 pounds of lead, and 1,000 caps (circular June 28, 1887), or a corresponding number of cartridges. In 1894 and 1896 the Volksraad fixed the allowance at 1,000 cartridges and granted, in addition, for every burgher participating in the competition, eighteen cartridges for two exercises per year of three times three shots each. The officers had charge of the distribution of the money, and the officers of a district decided together where the contest should take place.

As early as 1892 the commandant general published a circular giving rules for inspection of arms and competitive firing as follows:

1. Each field cornet, after consulting with his commandant, orders for his wyk one, two, or more places for the inspection of arms and gives proper publicity thereto.

2. He makes a list of all those liable to service and who participate in the exercises of the day.

3. It being the wish and order of the Government that all burghers be well armed and that they become proficient in the use of their arms, it is desirable that they take part in these inspections and competitions, particularly the young men, who should be called up and encouraged by the officers. Upon the completion of the competition I expect as soon as possible a report of how the money has been disposed of and of the result of the competition held in each wyk, the field cornet furnishing the data. The report must be accompanied by a list of the persons participating in the contest.

The firing is to be as follows:

1. All burghers liable to service, whether armed by the Government or at their own expense, or who have military rifles, are entitled to participate in the target practice in any place in their wyk.

2. The dimensions of targets to be as follows:

	Value.	200 yards.	400 and 500 yards.
Bull's-eye -----	5	8 inches diameter -----	2 feet diameter.
Four -----	4	16 inches diameter -----	3 feet diameter.
Three -----	3	24 inches diameter -----	4 feet diameter.
Two -----	2	Remainder of target 4 feet square.	Remainder of target 6 feet square.

Marking disks: 5 white, 4 red, 3 half black and white, 2 black. All firing must be from the standing position and offhand, and no shade or protection against sun and rain permitted. The ranges are 200, 400, and 500 yards. Every competitor must fire three rounds at each range.

The President modified this circular so as to set aside a certain sum for which children between the ages of 10 and 16 might compete (they are not to fire standing); he also directed arrangements to be made so that one person could not win all the money and that there should be four, five, or more prizes.

In the estimation of distances the Boers are very proficient, and it is not infrequent that a father instructs his sons in that particular; they first estimate the distance and then pace it off.

Rifle clubs existed in almost every district and were constantly increasing; ordinarily they met once or twice a week and fired at the ring target, or at various objects, tin cans,

bottles, etc.; the favorite distances were 200 and 600 yards. In 1894 instructions were given to issue ammunition at cost price to such rifle clubs as might be found worthy. Many of the clubs applied for Government recognition, though there is no law covering their case, and the commandant general, ever solicitous for furthering the ends of national defense, strove to have some legislation enacted for the benefit of these rifle clubs, which no doubt added much to the efficiency of the Boer in marksmanship.

During several years there existed volunteer corps in the South African Republic, mostly composed of aliens. In 1895 such organizations existed in Pretoria, Krugersdorp, and Johannesburg, and in 1896 more were organized in Middelburg, Carolina, Ermelo, and other places. In his annual report for 1896 the commandant general stated that it was very desirable to institute some regulations for these corps, which cost more every year, and to define their duties toward the state. These volunteer corps were exercised as much as possible and received from the Government twenty rounds.

These volunteer corps received also substantial recognition in the budget as follows:

Pretoria infantry corps, 100 men at £8	£800
Pretoria cavalry corps, 120 men at £18	2,160
Krugersdorp cavalry corps, 150 men at £18.....	2,700
Johannesburg infantry corps, 600 men at £8.....	4,800
Johannesburg cavalry corps, 200 men at £18.....	3,600
Corps to be organized.....	3,000
Total.....	£17,060

It would seem that the formation of these volunteer corps, particularly of the Frenchmen and of foreigners at Johannesburg, was much favored by the Government, and as late as February, 1898, a plan seems to have existed to incorporate all foreigners, Englishmen alone excepted, into volunteer corps and at the same time to confer on them full citizenship. But the existence of so many corps of this kind threatened slowly to revolutionize the military system of the country, which fact was pointed out by the commandant general. Pursuant to his recommendation the Volksraad decreed August 29, 1898, that by the end of the year all such organizations must be disbanded.

Notwithstanding their brief existence, these volunteer corps were called in the field; when, in 1898, Captain Bunn, in Swaziland, assumed a threatening attitude, the volunteers of

Pretoria, Krugersdorp, and Ermelo, with a detachment of artillery and 100 Ermelo burghers, were sent to the frontier, and the Johannesburg infantry and cavalry to Barberton. There was no actual fighting. The men were paid 5 shillings per day while on service.

Both in the Transvaal and in the Orange Free State the law did recognize volunteers to this extent that it stated that "volunteers on commando have the same rights and duties as those commandeered in the ordinary way, and they are to be under the direct command of the commandant general."

Volunteers, generally, have played a considerable part in this war; they were mostly foreigners, adventurers, amateurs, active, retired, and ex-officers of foreign armies. Generally they behaved with much gallantry, and for that very reason failed to gain success. The Boers are hunters rather than soldiers, they are not much given to holding a position to the last unless their instinct tells them that the position is a safe one to hold. The foreigners, on the contrary, once posted would hold their ground. The idea to keep them separate was therefore a good one. Owing to lack of proper general staff service, the foreigners were frequently not informed when the burghers withdrew, remained in the position and lost heavily or were cut off. Owing to their offensive spirit, which is totally lacking in the burgher, the foreigners were particularly well suited for reconnoissance service. Whenever offensive operations were undertaken, the foreigners had to bear the brunt of the fighting. Under the conditions just described, the German and Dutch corps were cut off and lost heavily at Elandslaagte, and Colonel Maximoff's detachment had to do most of the fighting in the retreat from Thaba Nchu. In the assault on Spion Kop on January 25, 1900, the leading detachments consisted mostly of foreigners; in the abortive attack on Mafeking a detachment of foreigners led, which was sent for that purpose from Pretoria, and General Snyman, the worst of all the Boer generals, failed to send the reinforcements previously agreed upon. Many statements as to the strength of these foreign corps have appeared in print, nearly all of which are much exaggerated. A careful investigation reveals the fact that their number did not exceed six or eight hundred.

The following were the foreign corps:

The Hollander corps consisted of two portions, one for field service numbering about 120 men, the other for garrison

duty numbering about 200 men. The latter was stationed in Pretoria assisting in the upholding of public order and safety and guarding British officers. After the British officers were removed from the city of Pretoria, the Hollander corps had sole charge of the duty of guarding them. The field detachment disappeared after Elandslaagte. Subsequently a number of Hollanders took service under Colonel Maximoff, others joined the scout company of the indomitable Theron. May 17, Assistant General Blignaut issued a call for the volunteers to rejoin him at Kopjes Station. At the end of May the corps was reformed, moved to Middleburg and thence to the Orange Free State to rejoin De Wet.

The Italian corps numbered about 75 men, representing eleven different nationalities, under command of Captain Riccardi, who had been with Aguinaldo in the Philippines. The corps did good scouting service in Natal, and subsequently in the Free State and Transvaal. It is the one corps that remained in existence from first to last without reorganization, which fact is due to the ability of its leader.

The Scandinavian corps numbered some 40 men and was exterminated at Magersfontein, but five men escaping. Its devotion stands high in the memory of the burghers.

The Irish brigade was commanded by Colonel Blake, formerly an officer of the Sixth United States Cavalry, and, after it had been weeded out, numbered about 150 men. It did good service around Ladysmith, and many are the tales that are told of daring acts done by these Irishmen. Later the corps came into the Free State just in time for the British advance on Brandfort, on May 3.

The German corps was the strongest of all, numbering 200 men; it suffered very heavily at Elandslaagte, and was several times reorganized. It fought in various theaters. After the capture of Pretoria by the British the corps was placed under the command of Dr. Krieger, a surgeon from Carolina, one of the two or three who were awarded a medal by the Boer Government for conspicuous bravery under fire; he was also given command of all dismounted foreigners arriving at Machadodorp by a proclamation of the krijgskommissaris, Dr. Neethling: "Notice to all dismounted foreigners who decline to serve under Commandant Krieger, that I have decided to send them with passports to Lourenço Marquez."

There was also a French corps under Lieutenant Galopeau numbering 25 men; theirs was mostly scouting service in Natal and subsequently in the Free State, where I often came across them. Galopeau was said to have surrendered to the British at Johannesburg.

A Russian corps numbering about 25 men was commanded by Captain Ganjetzky, formerly an officer in the Russian army. This corps did very good reconnoitering service in the Free State and was well spoken of by all.

There was an American scout company under Captain Hassel, numbering at one time about 50 men, including some Hollanders. They did scouting work in the Free State. Upon the capture of Pretoria by the British, Captain Hassel was reported to have remained behind and the corps had dwindled down to a few men.

Another corps was that of the Irish-Americans who had reached Pretoria under the guise of ambulance personnel, they being members of the ambulance organized at Chicago, I believe. Upon arriving at Pretoria they discarded the red-cross badge and donned the bandolier and rifle.

There were some Montenegrins, Argentinians, and representatives of other nationalities.

The strength of each foreign corps is difficult to fix because, depending on circumstances, men would go from one corps to another or join perhaps a Boer commando. Thus Colonel Villebois, formerly of the French army, who gave the Boers much good but unheeded advice, was made a "vecht general" and given command of all foreign corps; he got together as many as 175, I believe, and started on an expedition toward Boshof and was promptly rounded up by the British; he himself was killed and his men killed, wounded, or captured. A remarkable point in this affair is that of the few Boers who were with him, all managed to get away before it was too late.

The Boer Government appreciated the services of these foreigners, and no matter how troublesome they might become, they were invariably treated with the greatest consideration. Toward the latter part of the war when the resources of the Government became much limited, these foreigners sometimes became disgruntled and threatened dire exposure and all sorts of things, but never once did I see or hear any official show anger on that account.

THE STATE ARTILLERY.

TRANSVAAL.

The origin of this establishment dates back to 1881, when "Het Corps Rijdende Artillerie en Policie" (corps of horse artillery and police) was organized for the dual purpose indicated by the title. In 1894 the two services were separated, and in 1896 entirely new regulations were adopted for the corps, simultaneously with other steps of a military nature as a sequence of the Jameson raid. In 1894 the corps was called into the field against Malaboeh in the Blue Mountains in the north of the Transvaal, and seems to have acquitted itself well; the commandant general expresses his satisfaction with the corps, particularly with the field telegraph, which forms part of this permanent establishment. In previous years he had spoken in similar terms of the efficiency of the corps, but in 1893 the Volksraad ordered an investigation into the administration of the corps which was found to be unsatisfactory. The report is printed in R. 7445 of 1893 (Pretoria, July 26, 1893, in the "Noteelen van den Volksraad"; unfortunately I was unable to procure a copy).

In consequence, the administrator of the corps, an Austrian, was dismissed in 1894, and in his place Captain Schiel was appointed, who I believe had at one time been a German officer. Under the law and regulations officers were to be appointed upon passing a suitable examination, but politics were strong in the Republic and the examination was not always the sole requisite. In 1894, Schiel with Mr. Malzhan and Kroon were appointed a committee for the examination of candidates for a commission, among them P. E. Erasmus and F. J. Wolmarans, who had received some military training and education in Europe (chiefly in Holland), though neither could pass the examination for a lieutenancy there, and also First Lieutenant Bosman, who had been doing actual duty with the corps. In the examination Bosman failed, and the other two, who, by the way, belonged to highly influential families, passed.

In 1895, previous to the Jameson raid, the State Artillery figured in the budget as follows :

	£	s.	d.
Commandant.....	600	00	00
Administrator and adjutant.....	500	00	00
Quartermaster, paymaster, and magazine master..	400	00	00
One lieutenant.....	300	00	00
Three lieutenants.....	750	00	00
One farrier.....	250	00	00
One lieutenant instructor.....	250	00	00
One bandmaster.....	200	00	00
One lieutenant instructor in field telegraphy.....	350	00	00
Four sergeants, at 6 shillings per day.....	438	00	00
Eight corporals, at 5 shillings 6 pence per day.....	803	00	00
One hundred men, at 4 shillings 6 pence per day....	9,125	00	00
Fifteen telegraph pupils, at 4 shillings 6 pence per day.....	1,231	17	06
Sixteen musicians, at 4 shillings 6 pence per day....	1,314	00	00
Total.....	16,561	17	06

In January, 1896, Lieutenant Colonel Pretorius, commandant of the artillery, died and some time afterwards S. P. E. Trichard was appointed in his place; he had been commandant of Middelburg previous to the appointment, and in the course of the war was discharged the service for inefficiency.

In 1896 the Volksraad approved an increase of the corps to 400 men, who, however, were hard to get, and recruiting officers had to be sent out; in the same year the corps was also divided into field and fortress artillery. The building of barracks was also taken in hand, and in May, 1898, they were completed, forming a complete post of barracks, officers' quarters, gun sheds, stables, quarters for noncommissioned officers, and electric light plant. The cost was as follows :

Four gun sheds.....	£40,000
Barracks.....	55,000
Fifteen sets of quarters.....	35,000
Electric plant.....	12,136
Field telegraph depot, barns, etc.....	7,578
Stables for 400 horses.....	70,000

The plans comprised in addition a kitchen and general mess buildings, barracks for field telegraph corps, school building, hospital, canteen, covered drill shed, and riding school.

The law of reorganization of 1896 states the purpose of the establishment to be as follows :

The State Artillery is to form the nucleus of the military forces of the Republic and must be in constant readiness for

the field. Military instruction must be such as to render the men efficient according to their length of service; after three years' service they must be capable of acting as noncommissioned officers; the corps must also constitute a school enabling men after three years' service to take civil office.

The official title of the corps is also given as "Staats Artillerie der Zuid Afrikansche Republiek."

The State Artillery is placed under the commandant general and commanded by a colonel commandant, and consists of the following:

Artillery—

Horse artillery.

Mountain artillery (abolished after receipt of 75-millimeter Creusot guns).

Fortress artillery.

Field telegraph.

Intendance service.

Band.

Medical department.

Instruction department.

Smithy and machine shops.

According to the budget of 1899 the corps numbered 37 officers and 541 men, for whom the following appropriation was made:

STAFF.

	£	s.	d.
Commandant, £650 up to March 31, and afterwards £700 per year.....	687	10	00
First lieutenant adjutant	375	00	00
Instructor	400	00	00
Three instructors, at £300	900	00	00

FIELD ARTILLERY.

Major.....	600	00	00
Two captains, at £500.....	1,000	00	00
Four first lieutenants, at £350.....	1,400	00	00
Second lieutenant adjutant	275	00	00
Eight second lieutenants, at £275	2,200	00	00
Eight adjutant noncommissioned officers, at £180.....	1,440	00	00
Five opperwachtmeesters, at £150.....	750	00	00
Five fouriers, at 6 shillings 6 pence per day.....	593	02	06
Twenty wachtmeesters, at 6 shillings per day....	2,190	00	00
Thirty corporals, at 5 shillings 6 pence per day ...	3,011	05	00
Two hundred and twenty-six men, at 5 shillings per day	20,622	10	00

FORTRESS ARTILLERY.

One major	600	00	00
One captain	500	00	00
One first lieutenant magazinneester	375	00	00
Two first lieutenants, at £350	700	00	00
One second lieutenant adjutant, £275 after March 31 and £300 until then	281	05	00
Three second lieutenants, at £275	825	00	00
Three adjutant noncommissioned officers, at £180	540	00	00
Two sergeant majors, at £150	300	00	00
Seven sergeants, at 6 shillings per day	766	10	00
Eight corporals, at 5 shillings 6 pence per day	803	00	00
One hundred and twenty-eight men, at 5 shillings per day	11,680	00	00

INTENDANCE SERVICE.

One captain intendant	500	00	00
One first lieutenant quartiermeester	375	00	00
One second lieutenant	300	00	00
One adjutant noncommissioned officer	200	00	00
One opperwachtmeester	150	00	00
Two wachtmeesters, at £120	240	00	00
One corporal, at 5 shillings 6 pence per day	100	07	06
Four men, at 5 shillings per day	365	00	00
One clerk	275	00	00
One shoemaker and saddler	150	00	00
One tailor	150	00	00

FIELD TELEGRAPH.

One first lieutenant	400	00	00
One adjutant onderofficier	180	00	00
One opperwachtmeester	150	00	00
Three wachtmeesters, at 6 shillings, 6 pence per day	355	17	06
Three corporals, at 5 shillings 6 pence per day	301	02	06
Twenty-three telegraphers under instruction, at 5 shillings per day	2,098	15	00

ILLUMINATION AND WATER PLANT.

One chief machinist	400	00	00
Four machinists, at £300	1,200	00	00
One mechanic	300	00	00
One mechanic	250	00	00
One machinist	200	00	00
One stoker	200	00	00
Six laborers, at £36	216	00	00

BAND.

One bandmaster (second lieutenant) -----	275	00	00
One trumpet major -----	180	00	00
Nine musicians, at 5 shillings 6 pence per day ---	903	07	06
Nine pupils, at 5 shillings per day -----	821	05	00

MEDICAL DEPARTMENT.

One medical officer (first lieutenant) -----	600	00	00
One veterinarian (second lieutenant) -----	300	00	00
One apotheker (adjutant onderofficier, pharmacist) -----	250	00	00
One hospital sergeant -----	180	00	00
Eleven nurses, at 5 shillings 6 pence per day -----	1,104	02	06

SMITHY AND MACHINE SHOPS.

One adjutant onderofficier -----	300	00	00
Six pupils, at 5 shillings per day -----	547	10	00
One gunsmith -----	600	00	00

Before the war the artillery was formed into field batteries as follows:

One battery of six Creusots, 75-millimeter, quick-firers, and two Vickers-Nordenfelts, 37.5-millimeter.

Two batteries each of four Krupps, 75-millimeter, quick-firers, and two Vickers-Nordenfelts each.

One battery of four Nordenfelts, 75-millimeter (two lost at Elandslaagte).

In the course of the war the organization changed, pieces being detached as needed and combined into new batteries. At the battle of Van der Merwe, June 10 and 11, 1900, the artillery was organized as follows:

Battery of Captain Pretorius: Four Krupps, 75-millimeter; One Armstrong, 15-pounder; two howitzers, 12-centimeter; two Maxims, 37.5-millimeter.

Battery of Lieutenant De Jager: Four Creusots, 75-millimeter; two Vickers-Maxim-Nordenfelts, 37.5-millimeter.

Battery of Lieutenant Lossberg: One Krupp, 75-millimeter; one Krupp, 75-millimeter, black powder (belonged to Orange Free State); one Armstrong 12-pounder, and two Maxims, 3.75-centimeter.

Battery of Lieutenant Keylmann (O. V. S.): Two Krupps, 75-millimeter, black powder; two howitzers; one Maxim, 37.5-millimeter.

One Creusot, 155-millimeter, on truck.

Before the war the Government had ordered from France twelve Creusots, 155-millimeter, for the armament of the Pretoria forts, ten Creusots, 75-millimeter, quick-firers, older pattern, and seventy-two Creusots, 75-millimeter, latest pattern quick-firing guns. These guns could not be delivered, probably because the shops were busy with the new field gun of the French army, and, it is believed, no arms or munitions of war entered the two Republics after the declaration of war.

* * * * *

The guns on hand in the Transvaal at the outbreak of the war were as follows:

Four Creusots, 155-millimeter, known as "Long Toms," intended for the armament of the Pretoria forts; one of these guns was each at Ladysmith, Mafeking, Kimberly, and Laings Nek.

Four howitzers, 12-centimeter, Krupp, mobile siege guns, used before Ladysmith.

One muzzle-loader, 15-centimeter, in the fort at Johannesburg.

One muzzle-loader, mortar, 15-centimeter (on Vaalkop before Ladysmith).

Fourteen Vickers-Maxim-Nordenfelts, 37.5-millimeter, intended for the armament of the forts; all were in the field, three being lost by Cronje and two at Elandslaagte.

Four quick-firers, Krupp, 37-millimeter (former mountain battery).

Ten machine guns, Maxims, for Martini-Henry cartridge, intended for the armament of the forts.

Twelve machine guns for Lee-Metford cartridge, portable Maxims, carried on horseback.

Six Creusots, 75-millimeter, quick-firers.

Not employed during the war were:

Four mountain guns, Krupp, 65-millimeter, breech-loaders.

One Krupp, 8-centimeter, in magazine at Pietersburg.

One short Nordenfelt, 75-millimeter, without ammunition.

One Creusot, 75-millimeter, quick-firer, presented by Schneider & Co. to Major Erasmus; no ammunition.

The Boers also used a number of the captured British field guns.

ARTILLERY AMMUNITION.

According to the magazine books, there were on hand at the beginning of the war the following rounds of ammunition:

	Shell.	Shrapnel.	Canister.	Charges.	Cartridges.
Long Tom -----	3,970	3,980	795	9,000	-----
Howitzer, 12-centimeter -----	1,754)	1,114			-----
	*1,110)				-----
Creusot, quick-firing, 75-millimeter -----	4,946	5,575	488		-----
Krupp, quick-firing, 75-millimeter -----	3,402	1,966	232		-----
Nordenfelt, 75-millimeter -----	1,977	370	136		-----
Vickers-Maxim-Nordenfelt, 37.5-millimeter -----	{ 34,142)				-----
	{ *12,169)				-----
Krupp, quick-firing, 3.7 centimeter -----	3,614		49		-----
Machine guns, Martini-Henry cartridge -----					1,871,176
Machine gun, Lee-Metford -----					1,576,100

* Steel.

During the war there were manufactured by Grunberg & Leon, Johannesburg, 20,000 projectiles for Armstrong and Krupp guns, and 6,000 rounds for the Maxim-Nordenfelt 37.5-millimeter.

When the magazine was shifted to Machadodorp there were on hand June 1, 1900:

	Shell.	Shrapnel.	Canister.	Charges.	Cartridges.
Long Tom -----	360	2,000	300		
Creusot, 75-millimeter -----		300			
Krupp, 75-millimeter -----	500	160	69		
Vickers-Maxim, 37.5-millimeter -----	800				
Krupp, 37.5-millimeter -----	650				
Machine guns, Martini-Henry cartridge -----					90,000
Machine guns, Lee-Metford cartridge -----					100,000

In addition to the foregoing ammunition, there were still on hand, with the guns in the field, 270 rounds for every 75-millimeter gun and 1,300 for each Maxim-Nordenfelt.

To give an idea of the expenditure of ammunition, the following may be quoted from a battery at Donkerhoek, June 10 and 11:

Guns.	Before battle.		On hand after battle.
	Shell.	Shrapnel.	Projectiles.
One 12-pounder Armstrong -----	55	15	8
One Krupp, 75-millimeter -----	91	34	13
One Krupp -----	96	24	11
One Krupp -----	73	64	4
One Vickers-Maxim-Nordenfelt -----	400		
One Vickers-Maxim-Nordenfelt -----	300		
Reserve wagon -----	1,000		230

The six guns had fired 1,886 rounds in the battle.

PERSONNEL.

To enter the State Artillery one had to be a citizen by birth or naturalization, not less than 16 years of age, and in possession of a good-conduct certificate from the field cornet. To the field telegraph only citizens by birth were admitted who brought certificates from their teachers and from the president of the school commission that the candidates had satisfactorily passed the examination of standard 3 as laid down in the school laws. The men enlisted for three years, which period might be prolonged voluntarily for six years, and then remained in the reserve up to their thirty-fifth year. When in war the reserve is exhausted, burghers are incorporated, which happened frequently in this war. In the battle of Van der Merwe one gun of Captain Pretorius's battery was manned by 1 wachmeester and 4 burghers; one battery had 11 artillerists and 39 burghers. The Maxims, however, were invariably manned by artillerists.

As above stated, commissions in the State Artillery depended on the passing of an examination, and promotion was to be made according to rank and seniority; but these rules were frequently deviated from to the dissatisfaction of the rest of the small number of officers.

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INTENDANCE.

This department of the State Artillery is charged with the furnishing of subsistence, equipment, armament, etc., for the force. The captain intendant has charge of the purchase and distribution.

Every member of the artillery, officers and men, were entitled per day to 1½ pounds of meat and the same weight of white bread, which were furnished by a contractor; vegetables such as rice, potatoes, etc., and fuel were bought in open market. Everything was issued in kind. Originally the intention was to provide a general mess for the enlisted men, and an outfit costing £3,000 was purchased in Germany, but never used, as the commandant general objected to a general mess.

Enlisted men received clothing annually to the value of £15 10s., the uniforms for the men being furnished by an English contractor whose contract ran for five years. Every

officer received annually the following articles of clothing from the government gratis:

One parade uniform.
 Two drill uniforms.
 One cap.
 One hat.
 One great coat.
 One rain coat.
 Three pairs of riding boots.
 One pair of spurs with chain.
 Two shoe brushes.
 One curry comb and brush.
 Three woolen shirts.
 Four undershirts.
 Six pairs of socks.
 Five towels.
 Two blankets.
 Two sheets.
 Two pillowcases.
 Three pairs of horseshoes.
 One saber with sabretache.
 Two saber knots.
 Requisite number of stars (worn on collar as insignia of rank).
 Also every three years a new saddle kit and a parade saber.

The full-dress uniform of the artillery was a very gay affair, the coat being of French pattern profusely decked with braid and loops and gold cord; the trousers were of Russian cut. The field uniforms were of buff corduroy, cut as our khaki uniforms, the coat having standing collar, six buttons, and four pockets. The campaign hat is of black felt, one side looped up with an agraffe representing the Transvaal coat of arms.

Every mounted man received a horse from the Government, and so did every officer; the horses were bought by a commission, and the maximum price for a horse was laid down at £30; the average price paid was £23 to £25.

From what has been said, it appears that the members of the State Artillery were indeed liberally treated by the Government, but it was a good investment, for they repaid the Government many times over by their devotion and their blood on the field of battle; they remained faithful to the last, and when I left the Boer troops at Hectorspruit in the middle of September they were engaged in the mournful task of destroying the guns they could not take with them or for which they had no more ammunition.

The officers and adjutant onderofficers carried revolver, saber, and Zeiss field glass, noncommissioned officers and

trumpeters carried saber and revolver, corporals and men carbine and saber. In the field the saber was left at home; it is of the Dutch artillery pattern. The carbine was a Mauser, accompanied by a leather belt with twelve compartments for five cartridges each; the pistol was the Webley. The carbine could be fastened to the right side of the saddle, muzzle down, or could be worn over the shoulder, the swivels for the sling being attached on the side, not underneath the stock. The saddle was of English pattern, needing no blanket or other cloth, and somewhat heavy; on the pommel were a pair of saddlebags, in which were carried a tin of meat and the water bottle of metal covered with felt and provided with a cork. Over the saddlebags was strapped the overcoat, and the rain coat was fastened to the cantle. The officer's water bottle was of glass covered with leather. A compass was also comprised in the officer's equipment, but I never saw them use it except in the field telegraph section to take the bearings of heliograph stations.

SCHOOLS AND INSTRUCTION.

The regulations require that good teachers be provided for the instruction of the enlisted men and that all who, in the judgment of the major, require instruction attend school. The commandant general is required to make two inspections per year and report the result to the Volksraad. In 1897 his report is not very favorable, but in the succeeding year the commandant general expresses himself satisfied with the deportment and progress of the men, though there was but one teacher. In 1899 he demanded four additional teachers, but the war coming on upset his plans.

In addition to the instruction of the enlisted men, suitable young men were to be educated for commissions in the corps. The regulations for this cadet school, which was exclusively under the State Artillery authorities, contemplated the following curriculum:

1. Artillery science, four hours per week.
2. Topography, two hours per week.
3. Surveying, one hour per week.
4. Telegraphy, two hours per week.
5. Right-line drawing, two hours per week.
6. Magnetism and electricity, one hour per week.
7. Physics, one hour per week.
8. Photography, one hour per week.

9. Stenography, two hours per week.
10. Arithmetic, two hours per week.
11. Geometry, one hour per week.
12. Algebra, one hour per week.
13. Mechanics, one hour per week.
14. Dutch language, two hours per week.
15. English language, two hours per week.
16. French language, two hours per week.
17. German language, two hours per week.
18. Geography, one hour per week.
19. History, one hour per week.
20. Biblical history, one hour per week.
21. Penmanship, one hour per week.

TRAINING.

For the training of the artillery the Dutch drill books were used, viz, school of the soldier mounted and dismounted, school of the platoon mounted and dismounted, school of the driver, school of the section, and school of the battery. In the fortress artillery the drill books used were the school of the soldier, school of the company, and school of the gunner. At the Johannesburg fort the officers were German and the drill was in German, though the commands were given in Dutch.

For target practice there were allowed twenty rounds per gun per year, fifteen rounds per carbine per month, and the same number of rounds for the pistol. This allowance was insufficient, and declared so by General Joubert. Owing to the high price of ammunition for the heavy guns no practice was had with them, in consequence of which the defective construction of the shrapnel of the 155-millimeter Creusot became known only after the outbreak of the war. This shrapnel would not burst, and the cause was discovered only in May, 1900; the fuze was screwed into the top of the shell by means of a threaded spindle, which was weak and was broken by the discharge of the gun. To remedy the defect a leather washer was placed between the base of the fuze and the top of the shell, and to prevent the fuze from unscrewing itself during the flight of the projectile a screw was driven from the outside into the spindle, thus holding it in place. * * *

Indirect fire was not used as a rule; I saw it but once in the battle of Dalmanutha on the 27th of August. Practice with the carbine was at a range of 200, 600, and 1,000 yards.

DISCIPLINE.

The discipline of the artillery in the field was good, the officers had and showed the desire to maintain strict discipline, and in this respect the artillery stood out in marked contrast to the burgher commandos. The guns were kept in excellent condition, and the only (immaterial) thing that detracted from the appearance of the artillery was the lack of uniforms. As stated above, they were furnished by an English house, and a new set of uniforms had just arrived in Durban at the outbreak of the war and was, of course, confiscated by the British authorities. So marked was the difference in discipline and efficiency between the burghers on one side and the artillery and police (who had learned discipline in barracks) on the other side, that General Botha himself said that he wanted a disciplined, drilled, and trained force to carry on the war, and advocated a considerable standing army.

In the State Artillery military discipline is administered through three courts, the "ochtenrapport," a sort of summary court; the "militair hoof" or military court, and the "krijgsgericht" or court-martial.

The summary court is held by the detachment commanders, and sentence needs confirmation by the major under whose command the detachment is. The court has power to inflict the following punishments: Reproof; withholding of furlough for three months; arrest in quarters for one month; extra drill four hours; arrest in guardhouse (delinquent performs all duties and spends all the time off duty in the guardhouse); confinement for ten days; dark cell on bread and water for four days; reduction of corporals. Appeal is permitted to the next higher court.

The military court consist of five officers, presided over by the commandant; it hears appeals from the summary court and takes cognizance of offenses beyond the jurisdiction of that court. Its power of punishment is as follows: Arrest in quarters three months; arrest in guardhouse two months; confinement eight weeks; dark cell four days, and reduction of noncommissioned officers.

The court-martial is presided over by the commandant general, and a quorum consists of seven officers. It takes appeals from the lower court and cognizance of offenses beyond the jurisdiction of the military court. The punishing power of the court is the same as that of the high court of the South

African Republic. In addition to the kinds of punishments enumerated, this court may also award degradation, penitentiary, and death sentence.

FORTIFICATIONS.

The threatening attitude of Kaffir chiefs had from time to time made it necessary for the Government to erect fortifications as a protection for the settlers; chief among them is Fort Hendrina, in the Zoutpansberg district near Dorp Strichardt. It has a triangular trace, the faces are about 200 yards in length, at two of the angles are eight-cornered bastions, and inside the fort are barracks; the ramparts consist of a simple stone wall. In 1895 four new forts were built around the position of Magoebe and manned; the expenses were considerable. But these forts being located high in the north in the Kaffir districts, played no rôle in this war.

The principal fortifications that interest us are those of Pretoria, of which exaggerated accounts have appeared in the newspapers. Pretoria lies in the valley of the Aapjes River between the parallel ridges of the Magaliesberg and Daasport ranges, both of which command the city by about 400 feet. At the point where the Aapjes River, after turning northward, pierces the Magaliesberg range, stands the Wonderboom fort on the crest of the range; on the Daasport range, a few miles west of Pretoria, is the Daasport fort, and south of Pretoria, on the range just named, stand the Schanzkop and Klapperfort forts. All these forts have a most extensive command over the country in their front. In addition to these fortifications it had been planned to fortify the most important points of the terrain chiefly to the south of the city, so as to make the approach of the enemy as difficult as possible; a careful map had been prepared by the officers of the State Artillery, the points to be fortified had been marked, and the range ascertained from every fortified point to every approach or prominent feature of the terrain. Unfortunately I learned of this map only after the British had reached Pretoria, and was unable to procure a copy. I am told that platforms had been prepared on some of the selected points south of Pretoria.

When I first arrived at Pretoria there was no time to visit the forts, and when I came back some time later, the Government refused to give permission to see them, "because there

was nothing to be seen just then"; they were in fact being evacuated, as I learned subsequently.

The forts were built and accepted in 1898 and cost about \$250,000 apiece. They were planned by a committee of three, two of whom were majors who had failed to pass a lieutenant's examination in Holland, the third was a burgher general, totally unfamiliar with such matters. It is not to be wondered, therefore, that the forts are not up to the requirements of modern artillery; in fact they belong to the era of muzzle-loaders. They are built of masonry partly, and of sand and stone, with open banquettes, without proper flank defenses and with large dead angles. The magazines are protected by high traverses. A dozen lyddite shells well placed would have been sufficient to convert the whole into a heap of rubbish. These forts were to be armed with the guns known to us as "Long Toms" and machine guns. The forts on Klapperkop and Schanzkop were but a little over a mile from the city, and this defect became apparent on the approach of the British on June 4, when they fired some shells on the deserted forts and every shot that went over fell into the city. The fortifications of Pretoria were simply a bluff, but they did have the moral result that the people believed in them. To fortify Pretoria properly would require fortifications so extensive that it would require every male in the Transvaal to hold them. Three of the forts were built by Dewitz & Werner, a German firm, and one by the French firm of Grunberg & Co., agents of Schneider & Co., Le Creusot, the sole difference between the two constructions being a little more ornamentation of the iron work on the windows and gates of the French fort.

Another fortification that has become generally known is the fort of Johannesburg. On a hill or ridge dividing the city into a northern and southern portion stands the jail, surrounded by a fort constructed for the purpose of holding the Uitlanders in check, and the first measure contemplated by the reform committee before the Jameson raid was to take that jail. The trace is that of a bastioned rectangle, the armament, four guns and some machine guns; the garrison numbered 3 officers and 100 men of the fortress artillery. It was built by Lieutenant Colonel Schiel, formerly an officer in the German army, and Van Winsen, formerly a first lieutenant of Dutch infantry. For defense against an advance

of the enemy from the south the fort was without value. The cost of the fort was about the same as that of a Pretoria fort.

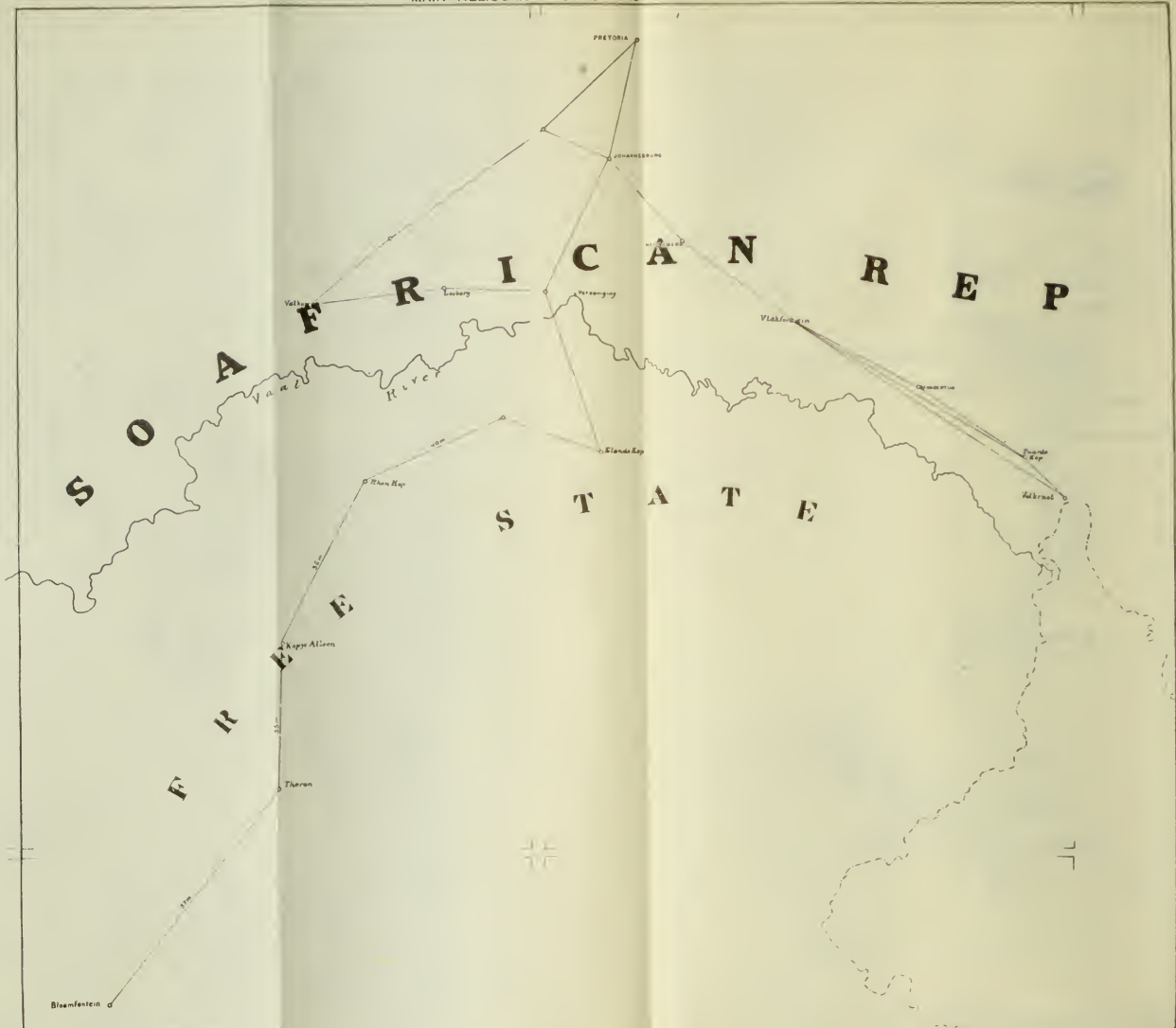
FIELD TELEGRAPH.

As previously stated, the field telegraph formed part of the little standing army of the South African Republic, and proved itself as efficient and valuable as the artillery service. Law No. 1 of 1896, states the object of the field telegraph to be the training of native-born citizens in field telegraphy, so that after three years' service they may be fit to be taken into the civil telegraph service. One paragraph of the same law prescribes that all electrical works for the army shall be under the superintendence of the field telegraph. It will be seen that only native-born citizens were admitted to this service. From the organization in 1890 until 1897, 176 young men had applied for admission, of whom 69 entered the service, 19 were discharged before expiration of service, and 50 were fully instructed and trained. At the outbreak of the war the corps numbered:

- 1 first lieutenant.
- 1 adjutant onderofficier.
- 1 opperwachtmeester.
- 3 wachtmeesters.
- 3 corporals.
- 23 men under instruction.

By calling in the reservists who numbered 28, the strength of the corps was brought up to 60. The first lieutenant in charge was Lieutenant Paff, a native of Holland, through whose untiring zeal and energy the corps reached a high degree of efficiency.

The corps accompanied the Boers into Natal and connected the various camps with telegraph and heliograph lines. The observation corps on the Swazieland border, under Schalk Burger, was equipped with a field telegraph by the telegraph corps. About three months after the invasion of Natal, General Joubert availing himself of a clause of the law, transferred the entire field telegraph service and material to the civil telegraph service of the South African Republic and directed that the heliograph service and the supervision of electrical works remain under Lieutenant Paff. The corps was well instructed and well equipped for the field telegraph service, and naturally did not relish being deprived of an important



part of its functions. On the other hand, all conditions were favorable for extensive use of the heliograph. The land forms a high plateau varying between 3,000 and 5,000 feet above sea level, the atmosphere is pure and dry, there is not a bush or tree to obstruct the view anywhere, and while the general character of the country is that of rolling prairie yet it did not lack in prominent points suitable for heliograph stations. The instrument used resembles ours in its mountings on a tripod, but the mirrors were circular and were worked by a key attachment, an objectionable feature which is overcome in our service by having a screen with a key attachment on a separate tripod. The large mirror had a diameter of 14.137 inches and a range of 90 miles, the small mirror had a diameter of 7.087 inches and a range of 48 miles; the instruments were furnished by Elliott & Co., of London, and manufactured, it is believed, by Siemens & Halske.

* * * * *

Originally two men were assigned to an instrument, but as the number of operators diminished during the war, one man was all that could be assigned to a station. The heliograph stations around Ladysmith are given on the map of Ladysmith. The regular system of heliograph stations before the British took Bloemfontein is given. In the latter part of the war when there was much shifting about and the parts of the Boer army were widely separated, it was sometimes difficult to establish communication, but the stations usually managed to find each other. * * * A large prismatic compass formed part of every station equipment. Heliographic communication with the enemy was prohibited, and certain key words, changing from day to day, were used to prevent the sending of a message by mistake to a British heliograph station. The station outfit was carried on horseback by the heliographer, one of whom invariably accompanied General Botha, who thus was able to communicate constantly with all parts of his position from any point. The services of the corps were as invaluable as they were efficient, due to the untiring commander, Lieutenant Paff, to whom, let it also be said, the attachés are indebted for much courtesy and hospitality.

ARTILLERY ESTABLISHMENTS.

In this respect the preparations of war left much to be desired. * * * No artillery establishments, such as workshops, were in existence when the war broke out, many of the guns ordered from abroad had not been delivered, and there was not even a precise knowledge of the number of rounds of artillery and small-arms ammunition on hand. There was no ammunition factory; there were no shops for the repair of guns and small arms, although General Joubert from time to time had called attention to this state of affairs. In 1898 he reports that a mechanic of the firm of Schneider & Co. was employed and that six young men were undergoing instruction, and in 1899 he says that upon the recommendation of the officers, two men had been sent to Europe to study mechanics, and that he hoped that by this means the Government would soon be able to erect a plant of its own for the repair of guns, tools, etc. As the war broke out in the fall of the same year, the Government of course could not profit by the labors of these two men.

In 1896, after the Jameson raid, the firm of Delfos Brothers, of Pretoria, manufacturers of instruments, tools, and machinery, offered to the Government to erect an ammunition factory, but, General Joubert disapproving, the Government rejected the offer. In 1898 the same firm made a proposal to erect a cartridge factory for the manufacture of cartridge cases, shells, small parts of firearms, and for the repair of rifles and guns. The establishment was to serve at the same time as a training school for metal workers. In addition to the cost of erecting and fitting out the establishment, the firm asked for a revenue of 5 per cent on the work turned out, the Government agreeing that the amount thus derived should not be less than £500 per year. But it was only after the outbreak of the war that a commission was appointed to look into the proposal. The consequence was that this and other improvised workshops came so late into existence that they fell into the hands of the British almost as soon as they had become useful.

The principal ones of these shops, and which will be described later, were the workshops of the Z. A. S. M. (South African Railroad Company), in Pretoria; the shops of Grunberg & Co., at Johannesburg (shell factory); the shops of

Delfos & Co., in Pretoria, and the dynamite factory at Modderfontein.

A small gun smithy was established where two or three men were employed to make repairs to small arms of all kinds averaging 350 per month. Of Mauser rifles about 400 were turned in from October, 1899, to May, 1900, for repairs (broken front sight, broken extractor, disarrangement of breech mechanism by powder gases, breaking of firing pin or rear-sight slide).

EXPENDITURE FOR STATE ARTILLERY.

In the budgets of the past few years the State Artillery figures as follows:

	1895.			1896.			1897.			1899.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Salaries -----	16,561	17	06	35,428	09	00	47,669	05	00	68,933	13	00
Clothing -----	3,500	00	00	13,000	00	00	15,000	00	00	20,675	00	00
Forage -----	4,350	00	00	13,000	00	00	13,000	00	00	17,875	00	00
Furniture -----	3,500	00	00	13,000	00	00	15,000	00	00	20,000	00	00
Schools -----	200	00	00	2,000	00	00	2,500	00	00	2,500	00	00
Purchase of horses -----	60	00	00	300	00	00	1,000	00	00	500	00	00
Incidental expenses -----	2,000	00	00	6,000	00	00	6,000	00	00	2,000	00	00
Farriery -----	1,600	00	00	3,000	00	00	750	00	00	1,500	00	00
Fuel -----	150	00	00	1,000	00	00	1,000	00	00	750	00	00
Field telegraph -----	250	00	00	800	00	00	800	00	00	850	00	00
Saddles and equipments -----	2,000	00	00	2,500	00	00	2,500	00	00	1,000	00	00
Tentage -----				4,000	00	00	2,000	00	00	2,500	00	00
Stable utensils -----				1,000	00	00	1,000	00	00	1,000	00	00
Wagons and harness -----				500	00	00	500	00	00	1,000	00	00
Medicines and hospital supplies -----							2,000	00	00	500	00	00
Cooking utensils, etc -----							4,000	00	00	1,500	00	00
Sanitary service -----										2,000	00	00
Tools and materials for repairs -----										2,500	00	00
Materials for shops -----										250	00	00
Electric plant -----										1,640	00	00
Waterworks -----										300	00	00
	34,171	17	06	95,528	09	00	114,719	05	00	152,273	13	00

STATE ARTILLERY OF THE ORANGE FREE STATE.

The regular artillery establishment of the Orange Free State was much smaller than that of the Transvaal. At the outbreak of the war it was under the command of Major Albrecht, who had served as noncommissioned officer of artillery in the German army in 1870. In addition to the commander, there were:

- 1 first lieutenant.
- 1 second lieutenant.
- 1 sergeant major.
- 3 sergeants.
- 8 corporals.
- 4 bombardiers.
- 139 privates.
- 20 heliographers.

Both lieutenants were Germans. The heliographers were trained in the Transvaal establishment. The term of service was for three years, followed by assignment to the reserve up to the thirty-fifth year. The discipline was very good, guns, horses, and equipments being kept in the best of order. The uniform was patterned after the German uniform, including even the German helmet. The barracks at Bloemfontein were small and had the reputation of being unhealthy. The State was in possession of the following guns:

Fourteen Krupps, 75-millimeter, black powder.

Six 6-pounder Armstrongs.

Three 3-pounder Armstrongs.

One Krupp quick-firer, 37-millimeter.

Three machine guns for Martini-Henry cartridges.

In addition, there were a few guns of antiquated patterns and some guns captured from the British, among them seven taken at Sanna's Post. In June, 1899, the Volksraad authorized the purchase of three quick-firing pieces and three machine guns, but the outbreak of the war prevented their arrival.

There was no fixed rule for the composition of a battery, and there were in consequence many variations. Major Albrecht managed the artillery as a unit, but after his capture the pieces were dispersed, as each burgher-commando liked to have a gun with it. During the war two additions were made to the officers, Lieutenant Keulmann, formerly of the Dutch army, and Von Lossberg, a German-American and formerly an officer in the German service.

On a hill on the edge of the city stands an old fort built by the British in 1858, with open infantry banquettes and two emplacements at the southwest and southeast angles. A new work was built in 1899 on a height north of the city with a command over the city and the country to the north and east of about 200 feet. It was of little use, however, as the topography is such as to require a number of fortifications to protect the city properly.

THE POLICE CORPS.

Not less valiant on the battlefield than the artillery were the various police corps. The police was organized under the law of 1895, and is under a police commissioner who is responsible directly to the Government. Under him are commanders, first and second lieutenants, chief inspectors, and

inspectors. Headquarters was in Pretoria. Under article 10 of the police regulations the organization is as follows:

1 commandant to each district or detachment, at the discretion of the police commissioner.

Mounted police.

- 1 first lieutenant to every 100 men.
- 1 second lieutenant to every 100 men.
- 1 opperwachtmeester to every 100 men.
- 4 wachmeesters to every 100 men.

White foot police.

- 1 chief inspector, at the discretion of the commissioner.
- 1 inspector for every 100 men.
- 1 subinspector for every 100 men.
- 4 sergeants for every 100 men.

At the outbreak of the war the strength of the Z. A. R. P. (South African Republic's police) was as follows:

- 48 commandants.
- 13 officers.
- 64 noncommissioned officers.
- 467 mounted police.
- 678 white foot police.
- 166 black police.
- 1 official at Johannesburg.

In addition, there were in Swaziland (likewise under control of the police commissioner):

- 1 commandant.
- 7 officers.
- 27 noncommissioned officers.
- 275 mounted men.
- 50 black police.
- 1 clerk.

In addition, there was a corps of 57 detectives for criminal cases distributed over Pretoria, Johannesburg, Pietersburg, and another 57 for the gold fields on the Witwatersrand and at Barberton.

The distribution of the police was as follows:

	Mounted police.		White foot police.		Black police.
	Officers.	Men.	Inspectors.	Men.	
Johannesburg	3	200	4	362	11
Pretoria	2	*30	1	186	46
Fort Hendrina	1	73	-----	-----	-----
Krugersdorp	1	23	-----	12	2

* Including President's guard of honor.

The rest of the corps was divided over a number of small stations. The police districts were those of the Witwatersrand gold fields, eastern frontier, southwestern frontier, and northern frontier.

In April, 1898, it was laid down that only burghers could enter the police corps, and that applicants must be at least 21 years of age. The first enlistment was for three years and subsequent enlistments for one year, the oath of office being taken before a justice of the peace.

The uniform was simple, the coat being of blue serge with black braid, standing collar with large brass letters Z.A.R.P., trousers of same material, with green cord for foot police, riding trousers and high boots for mounted police; hat with one side looped up with an agraffe. The officer's uniform was very gay and full of ornamentation. The Government furnished pay, clothing, equipment, armament, and subsistence. At the chief stations there were barracks for the men. The pay was as follows:

Police commissioner.....	£1,000
Commandant	350-450
First lieutenant	350
Second lieutenant	300-400
Inspectors.....	300
Opperwachtmeesters	260-275
Subinspectors	290
Sergeants	190
Mounted policeman	250-265
White foot police.....	160-175
Black police.....	40-50

The budget of 1899 appropriates £321,550 17s. 6d. for the police corps. Mounted police officers and trumpeters were armed with revolver and saber, noncommissioned officers and men with carbine, revolver, and saber; the inspectors of foot police wore revolver and saber, noncommissioned officers the revolver, and the men rifle, revolver, and saber, and the black police had batons. Before the war the rifle in use was the Martini-Henry with bayonet, but during the war those police forces who were ordered into the field were provided with Mauser carbines, two belts, and 200 rounds of ammunition.

These police corps received military training; indeed, article 19 of the regulations prescribes drill as necessary for combined movements in case of disorder, and the commandants believed drill necessary for good discipline. In the places

where large detachments were stationed, as in Pretoria and Johannesburg, drill was given regularly according to the Dutch drill regulations, school of the soldier and of the company for the foot police, and school of the soldier, of the platoon, and of the squadron for the mounted police. At Johannesburg the entire command turned out once a week, and in addition the best-drilled squads drilled once a week, the next best twice, and the rest two hours daily in the school of the soldier.

The discipline was excellent, as evidenced by the fine record the corps made in the field; when the police were told to hold a certain position, they held it, in marked contrast to the burghers, who would hold a position only if they approved of the particular position; and the police would also stand its ground though the remainder of the force might run away. Whereas a burgher commander had to be in rear to bring up his men, the police officers always preceded their men in battle. Violations of orders and regulations were promptly visited by punishment, so at Glencoe, where the uniforms were taken off as too conspicuous, and the first insubordinate remark about it was punished at once. These police troops rendered valiant service during the war, and a few notes in this particular are, perhaps, not out of place.

The commandant of the Johannesburg police was G. M. J. van Dam, who had charge of the Klerksdorp gold fields from 1888 to 1893, when he was transferred to Johannesburg. On October 25, 1899, he left Johannesburg for Natal with 4 officers and 200 men of the mounted police and 250 of the white foot police, all mounted; some of the men had been with Van Dam since 1881, some had eight years' service, 40 had seven months' service, half of the men had more than two years' service. The officers had eight or ten years' service, with the exception of one who had four. The corps had its own commissariat and ambulance. Four hours after arrival near Ladysmith the corps was ready to move anywhere. It was this corps which, unsupported, stormed Nicholsons Kop, one of the few occasions where the Boers carried out a tactical offensive. While near Ladysmith the corps camped in the vicinity of General Joubert, and a detachment of 100 men under Lieutenant Pohlmann was sent to Colenso. Toward the end of December the corps was sent to Johannesburg to recruit and reorganize and then, with two additional officers,

to proceed to Colesberg, where, on the night of February 12, it took a kopje, in conjunction with the Pretoria police, near Slingerfontein. A few days later it participated in what should have been a combined attack on Arundel Station, forming the left column with two Krupps (center column under General Shoemann, right column the Waterberg commando under Grobler). At daybreak the police were in position, but the first shot in the center fell at 11 a. m. and on the right at 3 p. m. and the affair was a failure. Early in March, when General Roberts had forced General De Wet to evacuate his position at Poplar Grove, the police were ordered up to assist in preventing further advance of the enemy. They arrived at Abrahams Kraal in the evening with 350 men, the rest being behind on account of their poor horses, many of which had sore backs due to the poor saddles. The corps at once took position at Abrahams Kraal, their right resting on the Modder River, and intrenched during the night. An attack by the enemy was repulsed with loss, with the assistance of one Krupp, one big Maxim, one hand Maxim, and 10 burghers. On the left of the Johannesburg police stood the Senekal commando, under Commandant Fourie, with two Krupps, and still farther to the left the Pretoria police, with one big Maxim. The extreme left was formed by a few groups of Free Staters. After the unsuccessful attack on the Johannesburg police the enemy turned southward, but met with the most obstinate resistance from the Pretoria police, which did not evacuate its position until out of ammunition, when the enemy was so near that he called to them "hands up." Out of the 80 men constituting the Pretoria police force 39 were killed or wounded and 30 horses lost. After Abrahams Kraal the Johannesburg police went to Kroonstad and was to go thence to Fourteen Streams and join the command of General Andres Cronje, whom they reached after a few skirmishes near Boshof; only half of the men were still mounted, the poor quality of the saddles being responsible for this condition. After the British troops entered Kroonstad the police did scouting duty along the Vaal and were subsequently reunited by General Botha, near Eerste Fabrieken, having so far lost 16 killed and 92 wounded. In action, fire discipline was also maintained, and the commandant in person gave the command for opening fire (individual fire), usually beginning at the range of 1,200 yards.

In January 100 men of the Pretoria police under Lieutenant De Hart, all mounted, proceeded from Pretoria to Colesberg; most of the men had over two years' service, ten had been in the war of 1881. It rendered good service at Keerom, Stolrivier, Potfontein and Slingerfontein, Nieuwe Fontein and subsequently at Abrahams Kraal. After the fall of Pretoria there were 45 men left fit for duty, of whom 14 were mounted; they were sent to Machadodorp for guard duty; their loss had been 9 killed and 35 wounded.

THE TELEGRAPH SERVICE.

Among the institutions that rendered material assistance in the carrying on of the war must be mentioned the civil telegraph department, which before the war numbered one hundred and forty-seven offices, of which seventy-four belonged to the South African Railroad Company and four to the Pietersburg Railroad. Eleven of these offices were also arranged for telephone service. The cities of Pretoria and Johannesburg and the Witwatersrand had telephone establishments, that in Pretoria being chiefly used for police purposes and considerably increased during the war. A line was established between the fort at Johannesburg and the Pretoria government building, and later on a second line was established between Johannesburg and Pretoria exclusively for official business.

The appropriation for 1899 for the telegraph department was £98,038, and a sum of £104,300 was allowed for repair and new constructions. The personnel consisted mostly of Transvaalers and numbered 382, of whom 60 were British and 40 Dutch. The instruments in use were the Morse, Duplex instruments, Quadruplex instruments, Wheatstone instruments, military pocket sounders for constant stream, field telephone Ericson, and Cardew vibrators. All these instruments were on hand before the war, and the personnel was instructed in their use by traveling instructors; the instruments worked well during the war. Eighteen light aluminium instruments furnished by Siemens, of London, did not stand rough field usage; the dry cell of this instrument may be carried in a coat pocket. At a distance of 17 miles, in one case, the vibrator worked on wet ground with naked wire broken in one place. On dry ground dispatches could be read with ease at a distance of 30 miles.

The government lines ran straight across country in long tangents, the law permitting the telegraph department to run its lines through private grounds. Where the owner objected, the courts decided, and when it was found that damage would result, the telegraph line had to go elsewhere. The railway telegraph lines ran along the tracks, avoiding, however, by means of cross-country tangents, the tortuous windings of this narrow-gauge railroad, constructed practically without cuts on the high veldt and following the winding contours of the terrain. During the war special lines were constructed between the South African Republic and the Orange Free State, which were not taken up on any map, to keep their existence secret, for which purpose portions of the line itself were concealed by utilizing the wires of wire fences around farms. In this way there remained telegraphic communication between the two republics for some time after the British had entered Pretoria. In a similar way lines were established between Reitz and Frankfort, Winburg and Thaba Nchu, Heilbronn and Lindley, and between the positions of Van Reenen's Pass, between Villiersdorp and Greylingstad, Amsterdam and Ermelo, Lichtenburg and Schweizer-Renneke. To relieve pressure at some points and to expedite matters, the telegraph department supplied operators to the railroad offices. In the construction of the railway telegraph lines, iron poles were used. On the lines of the telegraph department wooden poles were still to some extent in existence, but were being changed to iron poles. Owing to the total absence of trees and brush, wooden telegraph poles furnished welcome fuel for camp fires, not to mention ravages made by ants. Up to 1897 galvanized-iron wire was used for the telegraph lines, but after that time cold-drawn copper wire of 2.5-millimeter diameter alone was used. Large quantities of both kinds of wire were lying around in many places, and there seems to have been a very large supply, a considerable part of which probably fell into the hands of the British.

That the field telegraph service was taken away from the State Artillery and transferred to the civil telegraph department after the investment of Ladysmith has already been mentioned. The chief reason for the transfer seems to have been that the personnel was not sufficiently numerous. On the other hand, the telegraph department had to help out the heliograph service, and telegraph operators were repeatedly

equipped as heliographers when the exigencies of the service and the stress of war had reduced the number of the heliographers below what was absolutely necessary. These trained telegraph operators never had trouble in reading heliograph messages.

So far as the supply on hand permitted, use was made of vibrators and pocket sounders, and it is a curious fact that before complications arose a number of these instruments had been lent to the Cape Government for use by the Chartered Company, which subsequently might have been put to good use in the two Republics. At the important telegraph stations duplex instruments were invariably used to prevent the enemy from reading the messages, chiefly on the line Modderspruit-Colenso. The field equipment was an improvised affair, as the articles supplied from Europe were unsuitable to the nature of the terrain. The cable-wagons were altogether too heavy for a rough country like Natal, and some were in consequence captured by the British. The office material was carried on a light wagon or by the operator on horseback. In many cases the latter also carried a portable tent. Near Johannesburg General Botha was accompanied by an operator on a bicycle, who carried a Morse apparatus under his arm. From time to time he threw a wire over the Pretoria line to send General Botha's reports and receive replies thereto. Thus on the evening of May 29 he sent reports to the President at Pretoria, who left next morning for Machadodorp. The wire was carried on a light "trolley" (a wagon drawn by six or eight mules or eight or ten oxen; the heavy trolleys had as many as ten or twelve mules or fourteen to eighteen oxen). For field lines the ordinary wire was used. Cables when laid were not plowed in, but laid simply on the ground. The cable in use was Siemens' steel cable No. 35 of seventeen strands, two of them copper. The British cable was of the same kind, with an additional cotton wrapping. In laying a cable a Kaffir carried a knapsack containing the reel on his back, another Kaffir renewed the cable in the knapsack, and a telegraph official made the connection by means of special clamps, a patent of Siemens Brothers, the distinctive feature of which was a screw which entered the core of the cable. These clamps were manufactured in the Transvaal under the direction of the telegraph department of the South African Republic.

A field office was usually manned by one operator, but in the more important stations the force was increased according to local needs, as at Colenso and Modderspruit, where there were twelve operators and clerks. All official telegrams were sent in Dutch. Such a thing as an abbreviated telegraph style was unknown. The dispatches were written out in full and at great length, and sometimes contained citations from the Bible. There were telegrams of 1,500 words and more that might have been condensed into a very small compass. Private telegrams were also transmitted from the stations, but government messages had precedence. The offices were open at all hours of day and night, and the service of the operators no sinecure.

The establishment of new lines consisted chiefly in locating field offices on existing lines near encampments and in running cables and wires to connect parts of positions. Around Ladysmith a cable was laid; subsequently an overground copper wire was stretched on iron poles, the top section of the pole alone being used. This wire ran to Colenso on the Tugela. Later on telegraphic communication was established between the commandos on the Biggarsberg. A projected line from Van Reenen's Pass to Glencoe, Dundee, and Vrijheid was never established on account of the retreat of the Boers. Lines were also established at Kimberley and Modder River, at Mafeking, and, on the outbreak of the war, at Oshock, on the Swazieland border, for the convenience of the corps of observation under command of General Schalk Burgher.

As may be inferred from what has been said, the use made of the electric telegraph was extensive. The two Presidents had to be constantly kept informed of all movements and received copies of all orders of the commandant general and of all important reports of the commandant general and his subordinates. President Kruger had a large map in his room on which the positions of all troops were marked, and he also had a special wire connecting him with President Stein for their exclusive use, and talks between the two Presidents over the wire were frequent. As there was no general staff there was not proper direction of affairs, and President Kruger often interfered, ordering movements and assaults on Ladysmith and Mafeking, much to the disgust of Generals Joubert and Snyman. Daily summaries of the operations were

telegraphed to all stations, and were posted on the bulletin board, to the disgruntlement of the newspapers. Important telegrams were distributed to all who could be of assistance in some warlike act. Circular orders and instructions were sometimes telegraphed to all generals and commandants.

At the beginning the telegraph department computed from reports received the enemy's strength, the casualties, and the strength of the commandos in the field of which no accurate knowledge ever existed in the department of the commandant general. The information regarding strength of commandos and casualties was subsequently furnished by the identification department, which was established during the war and made a part of the Red Cross. It performed its duty with such accuracy and promptness that precise lists of killed, sick, and wounded were mailed to the families concerned within twenty-four hours of an action.

Private telegrams were not delivered at the small stations; they were sealed in addressed envelopes and placed in a box where the public could help itself.

The control and censorship over the telegraph service rested with the head of the department, who took effective steps to protect the Government. Orders were issued to the operators to report everything suspicious at once to the head office in Pretoria. Telegrams exposing fraudulent transactions were turned over to the state prosecutor and to the detective office. Telegrams giving information of intended fraudulent actions were sometimes exposed and published broadcast throughout the land; for instance, in order to prevent captured cattle from disappearing to private farms, to prevent speculations in horses, or attempts to raise the price of provisions, etc. Censorship of telegrams, under the law, rests with the head of the department. Untrue telegrams are punishable. If the department refuses to send a telegram the sender had to be heard by the Government, and if his message was rejected his money had to be paid back. Telegrams, for instance, containing state secrets were not sent but turned over to the Government without informing the sender; the money was eventually paid back to him or the message sent so late that the information had become useless to the enemy. The department also exercised control over the export of coal to Lourenço Marquez, and whenever it was suspected that the coal was intended for some British ship the consul at Lourenço

Marquez was promptly informed. This official had a private wire connecting him with the Government and his own operator, who was proficient in Dutch, French, English, and Portuguese.

In the Orange Free State the telegraph department was not so highly organized as in the Transvaal, through lack of desirable connections, of technical arrangements, and of an expert chief director. But the Transvaal telegraph filled the gaps by supplying personnel and material and by constructing lines, and after the fall of Bloemfontein the telegraph service in both Republics was alike.

WORKSHOPS WHOLLY OR IN PART IMPROVISED DURING THE WAR.

1. SHOPS OF THE SOUTH AFRICAN RAILWAY COMPANY.—While the railways in the two Republics rendered conspicuous service in the way of transportation, the work accomplished in the railway shops in Pretoria is no less important. Indeed, they looked more like anything else than railway shops during the war; guns and carriages were made or repaired, copper wire was manufactured, a plant for manufacture of time and percussion fuzes was installed, as also a large smithy for the shoeing of horses, etc. The director of the establishment was Mr. Uggla, a Norwegian, and an able and energetic engineer. The shops are located at the southern entrance to Pretoria, covering a surface of 63,960 square meters, of which 1,715 were taken up by sheds and magazines and 9,952 by the workshops (foundry 168 square meters, boiler house 210, forges 984, iron warehouse 104, lathes 1,320, car shops 1,700, etc.). The horsepower was 120. Under ordinary conditions 450 white workmen and 150 Kaffirs were employed. Of the white employees those that could best be spared (painters, carpenters, clerks, etc.) were ordered into the field to the number of 150, but as the demands of the Government on the establishment increased, about 100 of them were recalled, so that in May about 400 were at work.

In February the works were ordered by the Government to establish shops for the manufacture of shells for the 75-millimeter guns; this was done, the projectiles were made of mild smith steel, the heads were screwed on and the shell was filled with 250 lead bullets (also made at the shops), which were kept in place by rosin. When everything was in readiness and

some projectiles had been delivered, the Government failed to give further orders. For the dynamite factory the shops made time and percussion fuzes for the 75-millimeter guns, and percussion fuzes for the 37-millimeter guns. Toward the end of May the weekly capacity of the shops amounted to 300 time fuzes for the 75-millimeter guns, and to 1,500 percussion fuzes each for the 75-millimeter and 37-millimeter guns. There were also made 2,500 steel heads for shells for 12-centimeter guns and 75-millimeter Krupp and Creusot guns for use against armored trains. Incendiary shells were also made; the shell was cut off transversely and lengthened by the insertion of a brass cylinder; the bursting charge was located in a percussion fuze and the combustibles placed in the body of the shell. One of the ingredients of the composition was phosphorus. Another incendiary shell was made after the plans of a Mr. Perrins and used at Mafeking, I believe. The results obtained from either shell were unsatisfactory. (Begbie & Co. made a dynamite gun after plans furnished by the same Mr. Perrins; it burst at the first trial. In fact, all sorts of inventors of destructive engines were on hand in Pretoria, as they always will be at the capital of any country engaged in war.)

December 17, 1899, the commandant general gave orders for the manufacture of a 12-centimeter howitzer to replace the one destroyed by the British in a night sortie a week before. Many were the obstacles encountered in the manufacture of this piece, but all were successfully overcome by Mr. Ugglä. The barrel was made of 8-inch steel, breech and jacket of 12-inch iron. On the proving ground the gun showed the same ballistic qualities as the original from which it had been copied. One of the Long Toms (155-millimeter Creusots) had also been rendered useless by the British with dynamite. Charges had been exploded both in the muzzle and in the breech, the outer jacket was burst and the breech ruined. A charge placed on top had also indented the barrel; this was bored out and newly rifled. Ten inches were cut off the muzzle and $7\frac{3}{4}$ inches from the breech, a new chamber was bored out and in place of the burst jacket a new one of bronze was put on; a new breechblock was also made, patterned after the old one. On completion of these repairs the ballistics of the gun were found not to be much changed; the gun was sent to Mafeking and the Long Tom there brought to Ladysmith. Three

carriages for transporting Long Toms were also made and numerous small parts manufactured for guns, carriages, ammunition, etc. Nearly all the guns in use by the South African Republic were in the shops at one time or another for repairs, replacement of lost parts, etc. The rough usage the guns had to stand and sometimes neglect or carelessness (failure to fill recoil cylinders, etc.) explain this.

Defects noted in some of the modern guns were the following:

The Long Tom at Mafeking had the metal washed away for a foot and a half in front of the projectile chamber, evidently owing to a lack of proper hardening of the metal; the gun had not fired over 1,300 rounds, and the other three Long Toms at Ladysmith did not show this defect after firing 600 to 800 rounds. The gas fermeture was insufficient, the vent holes were burned out and the gas checks damaged. Up to May, twenty-four gas checks had been sent in for repair, some so badly burned that they had to be replaced by new ones. The time fuzes of the 155-millimeter shells all broke off on the discharge of the piece and in consequence none of the shrapnels burst, much to the relief of the British troops in Ladysmith. Experiments made by the railroad shops finally discovered the source of the defect as well as other faults of construction.

All the 75-millimeter Creusot guns were once or oftener in the shops, chiefly on account of some breakage in connection with the recoil cylinders (bent or broken pistons), defective or broken extractor, etc. The ballistics of this gun are very good, but when the spade of the piece is firmly fixed in the ground, the gun jumps into the air and requires relaying after every shot. I saw one of the guns fired at Dalamutha at a range of 10,000 yards; the gun jumped about 3 feet in the air and burst the elevating gear; it was at once removed to Machadoorp and next morning I found it again in place with a new gear, and, this time, with one of the rings broken that attached the recoil cylinder to the piece; it had been very cold during the night and this may have been the cause of the break, which, however, did not prevent the corporal in charge from continuing the fire at extreme ranges.

The Krupp guns required the least repairs of all, a burned-out vent being the chief defect discovered. In the Krupp quick-firer the spade is rather too heavy.

The 37-millimeter guns (Maxim-Nordenfelts) had firing pins broken and others needed other minor repairs; their chief defect lay in the weakness of their wheels. As the Boers placed great reliance on these guns, they accompanied them everywhere and twenty new wheels had to be furnished for them during the war.

Other work done by the railroad was the construction and destruction of bridges, etc., enlarging station facilities, in particular making sufficient arrangements for watering horses, arranging cars for the loading of the great Boer trek wagons, and for carrying horses, mules, and oxen; manufacture of tools and parts of machinery for other establishments working for the Government, establishing a large horseshoeing shop, building ambulance trains, etc. Four ambulance cars were built, one of thirty-two beds and three of twenty-four beds each; the first one was built in four days and all were donated to the Government. Four ambulance trains were built in all, and consisted each of a small diet kitchen, one hospital car, one first-class corridor car for slightly wounded, with dispensary, one first-class corridor car for the hospital personnel, one large kitchen car with cooking range, and one closed freight car for stores.

In addition the shops made repairs on broken heliographs, most of which were too light for the rough usage they had to undergo. Seven platforms of teak wood were made for the Long Toms and three platform cars were arranged and strengthened for Long Toms.

2. MACHINE SHOPS AND ELECTRO-TECHNICAL WORKS OF DELFOS BROS. & Co.—These shops are exclusively a private establishment, located in Pretoria, and consisted of a shop on Andries street, in operation since 1890, with a floor space of 117 by 110 feet, and a shop in the suburb of Arcadia, which was not quite complete, though a part of it was working. The shops on Andries street contained forge, lathes, brass foundry, etc.; the shop in the suburb was similarly equipped, but during the war it was fitted up for the extraction of lead from ores of the Edendal mine (near Eerste Fabrieken, a few miles east of Pretoria). Although wages are high, shops in the metallurgic line pay well, owing to the high tariff on imported metal (£25 on a ton of lead). The shop employed about 40 men, which number at the outbreak of the war was reduced to 18 and then gradually increased to 60 white men

and about 35 Kaffirs. Most of the workmen were Germans, some were Hollanders and Scandinavians. At one time Mr. Delfos made an effort to establish a cartridge factory for the Government, but was unsuccessful. The warlike work done in the shops was partly on direct order from the Government, partly on orders received from the dynamite factory. The first work intrusted to Mr. Delfos was the repair of 5,000 Martini-Henry rifles furnished by Westley-Richards, of London, with the mark, "Made specially for S. A. R." They had been issued for the Swazieland expedition of 1898 and found useless because the extractor did not work. In March, 1900, the Government gave orders for 50,000 percussion fuzes and caps for Maxim-Nordenfelts. From the dynamite factory came an order for the manufacture of Martini-Henry cartridges, and when a plant for that purpose had been installed, the Government gave orders not to have anything manufactured as there was a sufficient supply on hand. In November came an order for time fuzes for Krupp guns. Orders were also given for percussion fuzes for 75-millimeter Krupps, suitable at the same time for the Armstrong guns; manufacture began in February, 1900. In December came an order for the manufacture of Mauser cartridges at the rate of 10,000 per day. (It may be mentioned here casually that on the retreat from Kroonstad 17,000 time and percussion fuzes were sent back to the Transvaal; an earlier discovery of the existence of this supply would have saved much money and trouble.)

Everything manufactured in the way of ammunition was delivered to the dynamite factory, where was the laboratory. The capacity of the works was 1,200 percussion fuzes for 75-millimeter guns per week, 300 time fuzes for 75-millimeter guns, and 2,500 percussion fuzes for 37-millimeter guns.

Of course it required time to manufacture and install the requisite machinery; much difficulty was also encountered in finding a suitable material for the manufacture of jackets for Mauser bullets, which were finally made of "red copper" with satisfactory results. The installation was complete just as the British came into Pretoria, and the Boer Government got no benefit from the installation. Empty shells were not returned in great numbers, although it was earnestly urged upon all concerned, and General Joubert authorized the payment of 1 shilling 6 pence for every hundred shells.

Notwithstanding this inducement there were but 350,000 Mauser and 650,000 Lee-Metford shells turned in from October until May.

The machinery in use consisted of rollers for rolling sheet metal to the required thickness; upright stamps for cutting Mauser bullets; two drawbenches for Mauser bullets, made of presses for jam tins and taken from a preserve factory; drawbench No. 1, made from an air-compressor; drawbench No. 2, for calibering Mauser bullets, made of a petroleum motor; drawbench No. 3, for pressing the lead into the bullets; machine for shaping point of Mauser bullets, made of petroleum motor; three lathes for cutting off mantels; heating furnace with three chambers for heating empty hulls; a hydraulic machine for extracting caps from hulls; a hand machine for same purpose; machine for shaping caps for Mauser cartridges, made from a machine formerly used for stamping dog tags; a double eccentric press for caps of various sizes; automatic machine for turning caps to proper size; arrangement for gauging time fuze composition.

There were also manufactured for the dynamite factory an apparatus for filling caps, 100 stamps; cutter for smokeless powder; various machines for charging time fuzes; 400 bronze balls for polishing smokeless powder; hydraulic press for setting composition in caps with pressure of 100 pounds per cap, cylinder made from an air compressor.

In addition, these shops turned out an electric-light plant with 30-horsepower for illuminating the race course where the sick prisoners were quartered, one complete electric-light plant of 18-horsepower for the camp of the captured officers, one complete electric-light plant of 50 and 30 horsepower for the prison camp at Waterval, Roentgen apparatus for the Red Cross, tools for the manufacture of cartridge belts, and electric apparatus for the discharge of mines.

3. Another establishment from which the Boer Government drew supplies for the carrying on of the war is the dynamite factory frequently mentioned in connection with the much-discussed dynamite monopoly. Originally the dynamite concession had been given to a French company which erected a factory at Leeuwfontein, near Eerste Fabrieken. Imported dynamite then cost £8 per box of 50 pounds. In consequence of the dissatisfaction and agitation of German and English aliens the Government made arrangements with

the factory by which the price was reduced to £5 per box. As the agitation did not subside, the Government decided to choose an agent for the exploitation of the dynamite monopoly for the manufacture, sale, etc., of powder, ammunition, dynamite, and other explosives, and in September, 1893, the Volksraad approved the following regulations:

(1) The monopoly of manufacture, import, export, trade, etc., of powder, ammunition, explosives, etc., is vested in the South African Republic.

(2) The right of import may be granted against payment of a tax of 9 pence for every pound of dynamite imported.

(3) With the consent of the executive council the Government may make regulations for the import, export, sale, etc., of ammunition and explosives.

(4) The Government may transfer the exploitation of the monopoly to other persons.

(5) Such agent must take over the powder factory at Baviaanspoort, pay an annual rental of £3,750 and keep it in repair.

(6) The maximum price of powder sold to the Government shall not exceed 1 shilling 6 pence per pound; cartridges not higher than for what they can be imported. These prices are to govern for three years, when they shall again be fixed for a like period, modifications depending on the European market prices.

The maximum price of dynamite per box of 50 pounds shall be:

Dynamite No. 1, £5.

Dynamite No. 2, £4 7s.

Dynamite No. 3, £3 15s.

Dynamite shall be sold for cash only and in lots of not less than 100 boxes. The price of dynamite is fixed for eight years, when it may be changed, depending on prices governing European markets.

(7) If the prices of ingredients rise, the prices of the products of the factory may be correspondingly increased, even if they exceed the maxima fixed above.

(8) The agent shall be responsible for any damage to the factory by accidents or other cause.

(9) The quantity and quality of the products must conform to the standard fixed by the Government.

(10) The Government is authorized to have a factory erected within two and one-half years for the manufacture of dynamite and other explosives, and no ingredient shall be imported that can be had in the South African Republic.

(11) Any agent appointed by the Government must rent the Baviaanspoort powder factory and pay an annual rent of £3,750, and 5 shillings for every box of dynamite.

(12) No patent for explosives shall be granted except under special instructions from the Government.

(13) Newly invented explosives may be imported by the Government direct or through the agent.

(14) The Government is empowered to exempt the employees of the factory from commando and war service.

The three last articles reserve certain rights to the Government, limit the contract to fifteen years, and empower the Government to import explosives until the factory is completed.

The man selected was Mr. Vorstmann, a Hollander, who in 1894 concluded a contract with the Transvaal Government, which gave him power to form a company. This was done in Europe without delay, with a board of seventeen directors, four of them forming a board in Pretoria and the rest an advisory board in Hamburg.

Under this contract the Government confers the exclusive privilege of manufacture, import, export, trade, and sale of powder, fireworks, ammunition, dynamite, and other explosives of any kind on the agent, who is empowered to form a company which shall take over the obligations assumed by the agent toward the Government, and the contract is to run fifteen years from October 25, 1893. The Government reserves the right to grant permits to other persons for the importation of dynamite for their own use, with certain restrictions guarding the interests of the monopoly. The company to be formed must take over the powder factory at Bavianspoort and pay £3,750 per year to the Government, the Government reserving the right to take back that factory at any time.

Maximum prices are fixed as follows:

- Dynamite No. 1, £4 15s. per box of 50 pounds.
- Dynamite No. 2, £4 5s. per box of 50 pounds.
- Dynamite No. 3, £3 13s. per box of 50 pounds.

The Government reserves the right to purchase ammunition from the factory at prices governing the European market, with cost of transportation added.

Article 6 requires the agent to erect the factory named in article 10 of the regulations, and, if the agent so request, the Government will request the Volksraad to extend the time for completing the factory, provided, that within two and one-half years after contract the company has erected a factory capable of turning out 40,000 boxes of dynamite per year; and the Government may demand the increase of the capacity of the works. The agent is to pay the Government 5 shillings per box of dynamite, payable every three months, and 20 per cent of the profits remaining after deducting 8 per cent profit for the company; the agent is required to furnish an annual statement, keep proper books and give the Government access

to the same. Under the 20-per-cent clause the company pays the Government not less than 2 shillings 6 pence per box. Should the Government grant a patent on an explosive, the company shall have the sole right to manufacture it. In case of accident the agent must put the factory in proper condition. If the Government desires to import explosives, the agent shall have the first right to import them. The employees of the company shall be exempt from commando service. The agent may make his imports through one or more persons and must pay import duty on his machinery. Government may prescribe rules for the safe transportation and storage of explosives, and may not forbid export of explosives except in case of public danger. For a period of two and one-half years, and while the factory is under construction, the Government shall itself import the component materials and explosives and may turn them over to the agent for manufacture, sale, etc., and the agent is to furnish a monthly statement reporting all manufactures, sales, etc., and to pay over all the cash; the Government then takes 5 shillings for every box of dynamite, plus cost of imported materials, and turns the balance over to the agent. The agent must give surety in the sum of £30,000. For the adjustment of differences in the interpretation of the contract, the Government and the agent shall each name an umpire, the two umpires choosing a third one.

The factory was erected at Modderfontein, 5 miles west of Zaurfontein station of the Johannesburg-Pretoria Railroad, with which it is connected by a branch railroad. The establishment has an area of about 5,000 acres of land, partaking of the rolling character of the terrain in that section of the Transvaal. The construction began in April, 1895, and, according to the contract, had to be completed by November 6, 1896. The manufacture of acids was begun as early as June of that year and on June 29 the first nitroglycerin was made. Up to May, 1897, the work was carried on slowly in order to instruct thoroughly all employees and to make close observation of the influence of the local climate and air pressure on the ingredients. The establishment was governed by very stringent rules and a system of inspection which seem to have fully served their end, for no accident ever occurred in the history of the works, which during the first eighteen

months of their existence turned out 6,125,000 pounds of nitroglycerin. The works consist of:

- Two factories for sulphuric acid.
- One factory of nitric acid.
- Depots for acids, saltpeter and sulphur.
- Concentrating shop to reconcentrate acids remaining over to proper per cent for further use.
- Offices.
- Laboratory.
- Electric plant.
- Machine house.
- Forge.
- Ice factory.
- Box factory.
- Magazines.

In addition there are shops for the repair and manufacture of furniture, boarding houses for the unmarried employees, post, telegraph, and telephone offices. At some distance lie five dynamite factories far apart from each other along the slopes of a hill surrounded by high earthen embankments and wire fences. A mile or more to the west and northwest lie the magazines. In the opposite direction from the central group of buildings is the valley in which are the dwellings of officials and employees ensconced in flower gardens; also a schoolhouse, bakery, butcher shop, and hospital. The personnel consisted of:

- 11 chemists.
- 23 administrative officials.
- 450 white workmen.
- 1,700 Kaffirs.

The waterworks consist of two reservoirs of a capacity of 471,000 cubic yards formed by dams built across the valley, a pumping station at the greater of the two reservoirs, and four sets of cooling apparatus, where the water coming from the works is cooled by spraying and evaporation to 22° to 24° Celsius for further use; one apparatus of a capacity of 79 cubic yards per hour is for the acid factories, the remaining three of 33 cubic yards each for the dynamite factory. In this way a great saving of water is effected in a country where water is none too plentiful.

Among the magazines for raw materials there is one for the storage of saltpeter 195 by 65 by 22 feet, with a capacity of 6,000 tons; usually there are about 4,000 or 5,000 tons kept on hand. Sulphur is piled up in sacks, amount kept in

stock 1,000 to 2,000 tons. Glycerin is kept in iron barrels lying in the open to the amount of 500 tons; in addition thereto are sixteen iron reservoirs, each with a capacity of 10 tons, forming the so-called constant reserve. In this way the amount of glycerin on hand is something like 630 tons. For ingredients like sulphur, saltpeter, kieselguhr, glycerin, and guncotton the factory seems to have depended on importations. Niter banks have been found in the Transvaal but not in paying quantities; kieselguhr is found in several places. Guncotton is imported wet (30 to 35 per cent water) and dried before use in manufacture of explosive gelatin.

The two sulphuric-acid factories are each provided with apparatus with a capacity of 10,000 kilos of sulphur per day. The lead chambers have a capacity of 18,000 cubic meters. The equipments consist of eight platinum retorts, gilded inside, and eight lead pans, and of six sets of retorts of platinum and iron, consisting of twelve platinum and twelve iron retorts and twelve lead pans; in all, twenty platinum retorts with a total weight of 430 kilos (of which 30 kilos are gold) valued at £35,000. The capacity corresponds to that of the nitric-acid factory. Assuming that for the production of 2 kilos monohydrate 1 cubic meter of lead chamber is required, 36 metric tons of 98 per cent sulphuric acid can be made in the two factories in twenty-four hours. The minimum production may be put down as 30 tons.

The nitric-acid factory has forty retorts of 1,600 kilos capacity each, to receive the mixture of saltpeter and sulphuric acid; the capacity is 20 to 22 tons per day.

The dynamite factory consists of nitrating shops, a section for the manufacture of guhr dynamite, explosive gelatin, and other high explosives made of nitroglycerin.

The mixture of sulphuric acid and nitric acid is conducted through pipes to the nitrating vat and there mixed with the glycerin, which is introduced in the form of spray under pressure. Three hundred kilos of glycerin can be nitrated in one operation, yielding 610 to 620 kilos of nitroglycerin. Depending on the temperature, one operation requires 40 to 75 minutes, so that in a working day of nine hours eight operations may be made, yielding 4,960 kilos of nitroglycerin per day of nine hours and 1,488 metric tons per year of 300 working days.

Attached to the nitrating shop there is a separating shop, where the remaining acid is separated from the nitroglycerin, and the washing apparatus, where the last trace of free acid is removed from the nitroglycerin. The remaining shops are devoted to the manufacture of explosive gelatin, mixing guhr dynamite, etc. Nitroglycerin and guncotton are made into explosive gelatin in lead-lined copper pans heated by steam pipes. In addition there is a "denitrating" shop, where the mixture of sulphuric and nitric acids remaining over are separated and conducted to the apparatus, where they are reconcentrated for further use in the manufacture of nitroglycerin.

In January, 1898, the Government of the South African Republic directed a Mr. J. Loevy to make an inspection of the dynamite factory to determine whether its capacity was equal to the demands of the country.

According to the figures of the chamber of mines at Johannesburg, there were used in the South African Republic in 1896 the following:

	Boxes.	Tons.
Explosive gelatin	180,000	4,500
Dynamite No. 1	50,000	1,250
Other explosives	20,000	500

The average percentage of nitroglycerin in the above-mentioned explosives is as follows:

	Per cent.
Explosive gelatin	92
Dynamite No. 1	75
Other explosives	50

The amount of nitroglycerin required annually is therefore:

	Tons.
For 4,500 tons explosive gelatin	4,140
For 1,250 tons dynamite No. 1	937.5
For 500 tons other explosives	250
Total	5,327.5

According to the books of the factory the sales in 1897 amounted to 210,000 boxes of 50 pounds net, with an average percentage of 82.8 per cent of nitroglycerin, amounting to 4,756 metric tons, containing 3,938 tons (4,332 English tons) of nitroglycerin.

The Government also desired to know how much nitroglycerin the factory could produce, and whether it could produce the requisite acids also. For one process there are required:

To yield 620 kilos of nitroglycerin:	
	Kilos.
Glycerin	300
Sulphuric acid.....	1,350
Nitric acid	750

For eight operations of the working day there are required:

To yield 4,960 kilos of nitroglycerin:	
	Kilos.
Glycerin	2,400
Sulphuric acid	10,800
Nitric acid	6,000

The number of metric tons of nitroglycerin that can be manufactured is:

In one nitrating system per day	4.96
In one nitrating system per year of 300 days...	1,488
In three nitrating systems per year of 300 days..	4,464
In four nitrating systems per year of 300 days ..	5,952

To produce 4,464 tons there are required per day:

	Tons.
Sulphuric acid	32.4
Nitric acid	18

The capacity of the factory per day is: Sulphuric acid, 30 metric tons; nitric acid, 20 to 22 tons, to which should be added the acids regained by the denitrating process.

With these figures the inspector answered the questions of the Government in the affirmative.

The amount of dynamite kept in store ordinarily amounted to 150,000 boxes.

The agitation against the dynamite monopoly continued, those interested in the mining industry claiming that the prices were too high and damaging to the industry. Chamberlain called the monopoly a breach of the London convention. The state mining engineer tried to explain to the Volksraad that the price was not too high, but the Government reduced the price by 10 shillings per box. In 1899 the consumption was 250,000 boxes. In the Bloemfontein convention President Kruger informed Milner that the Government was ready to take over the factory as soon as the contract had expired.

During the war the factory was ordered to make smokeless powder for artillery and small-arms ammunition, to manufacture time and percussion fuzes, Mauser cartridges, and to change the charges of Martini-Henry cartridges from black to smokeless powder. The factory distributed some of these orders to the railroad shops and to Delfos Brothers. The chief work done by the dynamite factory was the making of smokeless powder (ballistite), composition for fuzes, charging cartridges, making lyddite for the howitzer shells, installing a plant for refining gold, and manufacture of hydrochloric acid for the government mining industry (which was working the best of the gold mines). The smokeless powder and fuzes left nothing to be desired; the lyddite was never used, as the English took possession; and it was the same way with the gold-refining plant, which was not completed until the end of May (the British entered Pretoria on June 5). Up to the end of March there had been manufactured the following:

- 5,600 primer tubes.
- 96 composition rings for fuzes.
- 450 percussion fuzes complete for 75-millimeter guns.
- 215,000 Mauser cartridges, short necks; changed loads.
- 200,000 Martini-Henry cartridges, changed loads.
- 14,000 friction primers.
- 150 grams of fulminate of mercury.
- 21 torpedoes for railway destruction (pattern of Baron von Schierstaedt).
- 3,500 kilos ballistite for guns.
- 500 kilos ballistite for small arms.
- 215 kilos picric acid (melting point 120° C.).
- 24 pieces quick match.
- 23,335 kilos of hydrochloric acid.

The establishment was guarded by a guard of its own, General Joubert having declined to furnish a guard for it because the men could not be spared. In spite of the enormous supplies of dynamite on hand, practically none was taken along when Pretoria was evacuated, and when it became necessary to blow up some railway bridge, the dynamite had to be commandeered in the country.

Another establishment that should be noted here is the Johannesburg shell factory of Grunberg & Leon (Schneider & Co.). Early in November, 1899, the commandant general received a letter from his secretary in Pretoria to the effect that artillery ammunition was running low, particularly

Krupp ammunition, and proposing to have the empty shells reloaded at the railway shops.

The representatives of Schneider & Co., Le Creusot, now came forward with a proposal, and received from the Government an order to equip a plant for making shrapnel, for which purpose the Government requisitioned the factories of Bigbie & Co., and Wright, Boag & Co., both of Johannesburg. The machinery was partly made new, partly requisitioned from the mines. By the beginning of December, 1899, the work was in full blast, and there were manufactured in all 20,000 projectiles, Armstrong and Krupp, 75-millimeter, and 6,000 rounds for the Maxim-Nordenfelts. In April, 1900, the factory was destroyed by an explosion, the work, it is believed, of evil-minded persons.

Grunberg & Leon were the representatives of Schneider & Co., and posed generally as artillery experts; they built, among other things, the "French" fort and epaulments for Long Toms. They had come over originally to install the guns furnished by their firm to the Transvaal Government, and to instruct the artillery in their use.

MEDICAL SERVICE.

Medical personnel was limited in the South African Republic, there being in all but thirty-one medical men in the government service, among them a surgeon of the Johannesburg police, one of the Johannesburg prison, one medical director of lunacy in Pretoria, one government veterinarian, and a few assistants and others. There existed a number of hospitals subsidized by the Government, for which I was able to get the following figures:

Pretoria Hospital received in 1888.....	£12, 000
Johannesburg Hospital received in 1888.....	26, 000
Barberton Hospital received in 1886.....	3, 000
Klerksdorp Hospital received in 1890.....	2, 000
Haenertsburg Hospital received in 1890.....	1, 000
Potchefstroom Hospital received.....	500

In addition, there was in Pretoria a lunatic asylum and a leprosy hospital, each receiving £10,000 per year from the Government. The South African Railway Company and the dynamite factory each had their own hospitals, the former having one at Johannesburg and one at Waterval Onder.

The State Artillery also had a medical department, the details of which have been given above. The annual appropriation for it was £3,500, £1,500 of which was for medicines and hospital supplies.

In all there were in the Transvaal at the outbreak of the war 287 registered physicians, surgeons, and veterinarians, but the law provided no organization to make them available in time of war. There was a civil commission of four persons having charge of the medical personnel, conducting examinations, etc.

It may readily be imagined that it was not long before calls came in from the field for surgeons, tents, supplies, etc. While in Kaffir campaigns medical service could be improvised without much trouble, a war on a large scale required, of course, greater resources, thorough organization, and enormous supplies.

At the beginning of the war the chief of the Red Cross in Pretoria called on General Joubert and asked him to indicate how the Red Cross could make itself the most useful and how it was to act; the General was busy and referred him to the artillery surgeon, "who was surgeon in chief of the South African Republic." The preparations made by the Government consisted in no more than in the fitting out of the artillery field ambulance, ordering medicines, and calling in district surgeons, who under the law should have accompanied their own commandos. At first there was hardly any medical personnel with the troops, but by the time they had reached Zandspruit, near the Natal border, they began to clamor for ambulances, some of which were sent from Pretoria. There were a number of foreign surgeons in the country, among them highly skilled men; part of them followed the army voluntarily, others on a promise from the Government of a remuneration of £3 per day (which was subsequently cut down by the Government to 10 shillings). The artillery surgeon died almost as soon as the medical direction of the army devolved upon him, and the Red Cross fell heir to it; but inasmuch as the Government never gave any directions in the matter, there never was a proper and complete organization. It was only in January, 1900, that the Government appointed a medical commission of four, with a secretary, charged with the medical service of the army, excepting that of the artillery.

THE TRANSVAAL RED CROSS.

The Jameson raid showed the desirability of having a branch of the Red Cross Society formed in the South African Republic, and when the commandos marched against Jameson, Dr. J. W. S. Lingerbeck sent out a call to medical practitioners with a view to forming an ambulance corps. This was done, and subsequently a permanent committee was formed, the beginning of the Transvaal branch of the Red Cross Society, which was approved by the Volksraad July 30, 1898.

After the society was formed, the Volksraad was asked for subsidies and for storage rooms for ambulance supplies and means of transportation. While waiting for an answer (eighteen months) efforts were made to form a new section with the help of some members of the Volksraad and district surgeons. In Pretoria a class was formed for instruction in first aid, and, thanks to the efforts of Dr. W. C. Koeff, the Pretoria Red Cross section was formed. Other sections were formed shortly before the outbreak of the war at Johannesburg, Lichtenburg, Klerksdorp, and Pietersburg. In the course of the war the Red Cross formed and sent into the field the following sections:

- Two sections to Natal from Pretoria.
- One section to Mafeking from Pretoria, later to Modderspruit.
- One section to Colesberg from Johannesburg.
- One section to Ladysmith from Johannesburg.
- One section to de Noordelijk from Pietersburg.
- One section to Districten from Pietersburg.
- One section to Christiana from Lichtenburg.
- One section to Jacobsdaal from Klerksdorp.

Other sections were from time to time sent to the Orange Free State, thus one from Paarl, under Dr. Hofman, member of the Cape Parliament, which joined General Shoeman at Colesberg October 27. Dr. Hofman, falling ill, was relieved by Dr. Celliers, who, with the ambulance, was taken by the British and made prisoner of war, I am told, because a small package of small-arms ammunition was found in the ambulance.

For the evacuation of the ambulances base hospitals were established as follows:

- Two in Pretoria.
- One in Barberton.
- One in Krugersdorp.
- One in Belfast.
- One in Potchefstroom.
- One in Utrecht.

The personnel of these field sections and hospitals was made up of the following:

Hospitals.

- Pretoria: One surgeon, nine male nurses, six female nurses.
 Barberton: Two surgeons, one male nurse, four female nurses.
 Krugersdorp: Two surgeons, nine male nurses, six female nurses.
 Belfast: One surgeon, nurses as required; small hospital.
 Pochefstroom: One surgeon, nine female nurses.
 Utrecht: One surgeon, twelve male nurses.

Field sections.

- Pretoria: Two surgeons, five male nurses, four female nurses.
 Pretoria: One surgeon, three male nurses.
 Johannesburg: One surgeon, six male nurses, five female nurses.
 Johannesburg: One surgeon, eight male nurses.
 Pietersburg: One surgeon, twenty male nurses.
 Klerksdorp: One surgeon, three male nurses, eleven female nurses.

In addition, there was formed in Pretoria a transport section, and one in Johannesburg, for the purpose of conveying the sick and wounded from the railway station to the hospital. At the beginning none but first-class passenger carriages were available for the railway transportation of the sick and wounded, until the South African Railway Company stepped in and presented four ambulance railway trains to the Government, the composition of which has been given above. The cars for the sick and wounded had a corridor through the middle, and the beds were arranged in two tiers parallel to the long side of the car; the wounded were placed on stretchers 1.9 meters long and 0.8 meter wide and carried into the car, where the stretcher was placed upon the supports, so that a transfer from stretcher to bed was unnecessary. The walls were covered with light cotton prints and the floor with linoleum; windows about a foot and a half square were cut into the side of the car, which was painted gray on the outside with a big red cross in the middle of the car. The railroad did not require payment from the Government for the running of these trains.

In Pretoria there were several schools particularly suitable for hospitals, inasmuch as they contained many rooms and beds, and they were accordingly placed at the disposal of the Red Cross by the Government. So the state school for young ladies was occupied by the first Dutch ambulance. Another building was occupied by a Transvaal hospital, maintained at the expense of the firm of Bourke, of Pretoria.

The Government further established base hospitals of twenty-five beds at Standerton with two surgeons, two male and three female nurses, and one at Newcastle with one surgeon, ten male and four female nurses. The following field ambulances also were at work under the Red Cross:

Johannesburg mounted police ambulance: One surgeon, seven male nurses.

Ermelo section: Three surgeons, four male nurses.

Scandinavian ambulance: One surgeon, six male and four female nurses.

Ambulance of Dr. Shaw: One surgeon, eleven male nurses.

Ambulance of Dr. Visser: One surgeon, five male nurses.

Ambulance of Dr. Fren: Two surgeons, nine male nurses.

Ambulance of Dr. Daly Ramsay: One surgeon, four male nurses.

Ambulance of Dr. Weiss: One surgeon, six male nurses.

The firm of Bekett, at Pretoria, maintained a field ambulance with transportation in Natal of one surgeon and eleven nurses, as did the firm of Bourke, of Pretoria. The latter ambulance was at Modderspruit, and consisted of two surgeons and sixteen nurses, while two surgeons and eleven nurses were in the hospital maintained by Bourke in Pretoria. The Government ambulances were maintained by subsidies from the Government and donations made at home and abroad; many of them were gradually dissolved and absorbed by the Transvaal Red Cross when the two Republics became flooded with foreign ambulances, which brought their own supplies, personnel, and funds. Donations of money and material were received from Holland, Italy, France, Greece, Switzerland, Spain, Denmark, Japan, Uruguay, and the United States. When the medical commission appointed by the Government took charge the Red Cross placed itself at the disposal of the commission, but retained control of its material and interior service.

FOREIGN AMBULANCES.

The sympathy generally felt by foreign nations—though not by their Governments—for the Boers found expression in the sending of ambulances to alleviate the suffering of the victims of the war.

The first Dutch ambulance, under Dr. Lingbeck, with six surgeons, four male and ten female nurses, arrived December 10, 1899. It maintained a field ambulance at Modderspruit, a train ambulance at Smaldeel, and a base hospital at Pretoria; subsequently it maintained train ambulances at Waterval

Onder and at Nooitgedacht. Later two additional surgeons arrived to relieve two of those on duty with the ambulance. This ambulance was well equipped and carried an enormous amount of medical supplies.

The German ambulance arrived December 10, 1899, consisting of eight surgeons, fourteen male and eight female nurses. It established a hospital at Jacobsdal, where it fell into the hands of the British, and subsequently opened a hospital in Pretoria. The surgeon in charge was Dr. Kuettner, who received high commendations from the British for his work at Jacobsdal, and is now, I believe, surgeon general of the German forces in China. On his return a chair for military surgery will be established for him at the University of Berlin.

A Dutch-Indian ambulance under Dr. Kerkhof, with two surgeons and two nurses, arrived December 29, 1899. It took over the Pretoria field section at Modderspruit, and later formed a hospital at Petrusburg, where it fell into the hands of the British, and subsequently at Brandfort, where it again fell into the hands of the British. This ambulance carried a magnificent surgical equipment, and received the commendations of British officers.

The second Dutch ambulance arrived January 14, 1900, under charge of Dr. Koster; the personnel consisted of four surgeons, three male nurses, seven female nurses, and an administration official. It was stationed at Harrismith and maintained dressing stations at Smiths Crossing and Van Reenens Pass. At the retreat from Ladysmith it fell into the hands of the British.

The Belgian-German ambulance arrived January 14, 1900, with a personnel of seven surgeons, nineteen male and fourteen female nurses, and two administrative officials. Drs. Coolen and Fessler were in charge. This ambulance was first stationed near Colenso; subsequently it formed small field ambulances.

A Russian ambulance arrived January 26, 1900, under charge of Dr. Kuskoff; the personnel consisted of six surgeons, five male and nine female nurses, two administrative officials, and ten hospital soldiers. It maintained hospitals at Newcastle and Volksrust, later a hospital at Waterval Boven and a dressing station at Charleston and in front of Machadodorp.

A Russian-Dutch ambulance under charge of Dr. Van Leersen arrived February 8, 1900, the personnel consisting of

seven surgeons, three male and ten female nurses, and one administrative official. It was stationed at Kroonstad and Elandsfontein, and subsequently formed dressing stations at Krugersdorp, Rhenoster River, Elandsfontein, Pretoria, Waterval Boven, Middelburg, and Rietfontein.

An American-Irish ambulance arrived in April, 1900, with a personnel of five surgeons and two nurses. It went to Fourteen Streams. Originally the personnel numbered fifty-three, but forty-six of them on arrival at Pretoria divested themselves of the Red Cross and donned instead the bandolier and Mauser, much to the disgust of the Red Cross Society, which lodged a strong protest with the Government against such action.

There were also some Swiss surgeons who worked in various places in the field and in a hospital in Johannesburg; they had with them every modern surgical appliance that could be of use in the field or in the hospital.

These ambulances rendered magnificent service and they brought with them enormous supplies of all kinds; when I left Komati Poort in September, one Dutch ambulance there still had ten freight cars full of supplies. In fact there were so many ambulances that none of them was ever overworked, which in part is also due to the small number of Boer wounded or sick. I came personally in contact with all these ambulances, their chiefs were at all times most courteous and they have placed the attachés under lasting obligations by their hospitality; whenever we arrived in the vicinity of an ambulance and were destitute of food and drink and shelter, it was only necessary to go to the ambulance and receive all these comforts, with much unfeigned cordiality and kindness to boot.

THE IDENTIFICATION DEPARTMENT OF THE TRANSVAAL BRANCH OF THE
GENEVA RED CROSS.

No steps had been taken by the Government to provide means of identifying the victims of battle. This want was forcibly brought home to Prof. Dr. G. A. F. Mohlengraaff, state geologist of the South African Republic, who visited the battlefield of Elandslaagte and took immediate steps to establish an "information bureau" under the Red Cross, with a view to having access to the killed and wounded, to the hospitals and ambulances, and communication with the enemy.

The name of the bureau was subsequently changed to that of "identification department" upon remonstrance from General Methuen, who believed the department to be identical with the one existing under the same name in the Orange Free State, which collected information for strategic and tactical purposes.

On November 4, 1898, the state secretary telegraphed to the commandant general "As the Government has the greatest difficulty in informing families of their killed or wounded members and as measures in this direction have to be taken, the Government has charged Dr. Mohlengraaff with this work in connection with and under the Red Cross. He proposes to have cards printed giving name, district, and commando of every man in the service and that the officers compel every man to carry this card on his person so that in case of death or wound he may be readily identified. Other persons may be appointed to serve under Dr. Mohlengraaff in connection with the Red Cross to carry out this scheme. Does it meet your approval?" To this the adjutant of General Joubert answered on the 7th: "The commandant general has no objection that measures for the prompt identification of killed and wounded be taken, but he can not take charge of it; if others are willing to undertake it they will be doing a piece of very necessary work."

Upon receipt of this reply the following circular was telegraphed to all commandants and field cornets of the Transvaal forces:

The information of killed and wounded sent to the Government and families is wholly unsatisfactory, and it is the desire of the commandant general to find a method that will mend matters. The Government has therefore decided to establish an information bureau which shall form part of the Red Cross, with the consent of the chief of that society.

From every battlefield the information bureau must, as quickly as possible, send the information about killed and wounded to the Government and to the families. To do this it is necessary that every combatant carry constantly in his pocket a card with his name and address of his family. This is very important in case our killed and wounded fall into the hands of the enemy. No one in the enemy's camp knows their names and they carry nothing about them to give that information. After Elandsplaagte we received information about some of our killed and wounded in these terms "a Boer, about so old." It is of great importance also, in view of the pension later to be paid by the Government to the widows of killed, that the card on him furnish positive proof that he was killed or wounded.

Commandants and field cornets are therefore urged to impress upon their men the importance of always carrying about them the cards to be furnished by the information bureau.

The personnel of the information shall be unarmed on the battlefield, and shall be treated as members of the Red Cross or as commandeered men. The cards furnished by the information bureau are printed in Dutch and English to enable us to receive information of killed and wounded who may fall into the hands of the enemy. Commandants and field cornets are urged to give all necessary aid to the information bureau. Mail and telegraphic address of the information bureau is "Mohlengraaff, Pretoria."

A circular of November 14 brings the same information to the knowledge of landdrosts and mine commissioners, provides for publication of names in the *Staats Currant* only (Government Gazette), and indicates the methods of transmitting the news to the districts, wyks, and families.

This was followed by a circular from the information bureau of December 5, to surgeons of hospitals and ambulances of the South African Republic and Free State, and states that the Orange Free State has also charged the bureau with the same duties toward burghers of the Free State, and closes with a request for prompt information on the following points: Name and Christian name, age, commando, address of family, date and place of wounding, nature of wound or sickness, date of admission to hospital or ambulance, condition of patient, date of death or discharge, address where patient has gone if discharged convalescent.

The cooperation of the British military authorities was also invoked; they approved of the proposal and promised to cooperate as far as possible.

To make the scheme effective, a staff of nine inspectors and sixty field agents was appointed to provide the men in the field with cards: Two inspectors to Natal, one to Swazieland border, one to Deerdepoort, two to Kimberley, one to Mafeking, one to Stromberg, and one to Colesberg, each supplied with a supply of numbered cards. No. 1 had Nos. 1 to 3,000, No. 2 had Nos. 4,000 to 6,000; as nobody knew the exact strength of any commando, some latitude had to be left. In furnishing a card the agent would enter its number, the name, address, and commando in a book with double pages numbered alike for duplication by means of carbon paper; the copy was at once mailed to the head office in Pretoria, which was established in the *Staatsgymnasium* in Pretoria, under Dr.

Mohlengraaff, assisted by Mr. H. C. Jorisen and others. The office was organized in the following divisions:

1. Registry division, where the registers were made up from the copies received from the field agents. Many burghers refused to accept cards; sometimes a whole cornetship would tear up the cards; others called it a temptation of God. Separate registers were kept for the Transvaal and for the Free State, for colonials, State Artillery, Orange Free State artillery, police, dispatch riders, etc. Each register was in duplicate, one alphabetical, the other numerical. Colonial men had two addresses, a real and a fictitious one, which latter was put on the card.

2. Casualty division, where are received after an action the cards collected by the field force, and the reports wired to Pretoria (followed in every instant by a letter). In the head office the telegrams were placed in a wrapper on the outside of which was noted the name of the killed or wounded man, name of sender, date and number of telegrams, and all telegrams referring to the same name were placed in this wrapper and noted on the outside, also age, kind of accident (wound, death, sick, etc.), residence, action taken, and remarks. When a death is reported, a big black cross is made in ink at the top of the paper.

The list of casualties were printed in the government printing office and sent all over the country. On the battlefield the work was done with great rapidity and accuracy; thus in the battles on the Tugela the information was, the same night, sent to the families and lists printed in the government printing office.

3. The information division was for the purpose of replying to inquiries.

4. In the division for British soldiers, lists of British casualties were prepared and sent to Cape Town.

5. The statistical register was intended to furnish final statistics of killed, wounded, sick, and missing. The series of books kept here consisted of a register for killed and wounded, register of sick, register of accidents, register of missing.

For each of these headings three books were kept; in the first was recorded all official information, in the second semi-official information, and in the third rumors, hearsay evidence, etc.

All registers were of the same model, with the following columns:

Number of identification card.
 Full name.
 Age.
 Residence and address of family.
 Commando.
 Death, date and place.
 Wound, date and place.
 Character of wound.
 Special remarks.

Full statistics up to the time when I left the Transvaal were not available.

From the beginning of the war up to the relief of Mafeking, in May, the total casualties were as follows:* Killed, 850; wounded, 2,832; accidents, 269 (of which 28 were fatal); sick, 2,358 (of which 146 died).

The most prominent diseases were dysentery, typhoid, rheumatism, bronchitis, and pneumonia. A number of men sought to disable themselves in order to escape further service, and during the campaign in the Free State many malingered because they were homesick or otherwise tired of the war.

MAPS.

Nothing was more difficult during the war than to obtain a fairly good map of the Republics. Before my arrival at the capital of the Transvaal I was unable to purchase any, and those published from British sources and for sale in Cape Town and at other places under British control, did not find their way into the Boer lines. But few maps had been prepared within the two Republics, and they were not very suitable for military use. This lack of maps is attributable to the slow development of the Government and of the office of the surveyor general.

Originally the land had been acquired by the "voortrekkers" (first immigrants from the south) by exchange or treaty, by conquest over Mozilikatse, etc.; others had settled in uninhabited districts. The country between Vaal and Limpopo

* Whether these figures include the casualties previous to the establishment of the bureau I am unable to say, although it is asserted that they do.—C. R.

became gradually settled by white people. When cessation of hostilities with the black natives gave the settlers a spell of rest, they began to organize a government, which, among other things, occupied itself with regulating the land question.

All unclaimed and unoccupied lands were declared government property which remained open for settlement as heretofore, except that none was entitled to land who was not 16 years of age or over and no one could take more than 3,000 "morgens" (1 morgen=2.11654 acres). Under the old "Zuid Afrikaansche Matschappij" (Afrikaansche Natal Gouvernement) the Volksraad decided April 1, 1840, that a man might have two "plaatsen" (places, farms), and on April 21, 1848, the Lydenburg government declared that those who had remained on their farms and those who should arrive before the end of December, 1852, should be entitled to two farms. This declaration is further upheld May 5, 1851, and December 19, 1856, and in September, 1860, a decision is rendered in Pretoria (article 149) that immigrants who had arrived before the end of 1852 were entitled to two places, a cattle farm and an agricultural farm, and that for special services rendered the Government might accord to some people a third farm. Between 1852 and 1866 citizenship entitled the citizen to but one farm. Later it was decided that persons entitled to land under the first-mentioned Government regulation must go to the landdrost to receive the land they were entitled to, in some part of the district, and receive certificates therefor. Numerous frauds were committed with these certificates, and it was in consequence decided in 1865 that in order to receive a certificate it was necessary to take out citizenship papers accompanied by a declaration of the claimant, and that he had taken no more "burgerrechten" (citizens rights) in land than he was entitled to.

Two kinds of real estate were recognized, "eigendomsplaatsen" and "leeningsplaatsen;" the former became the absolute property of the owner, the latter were subject to pay of rental to the Government. Article 195 of the constitution decrees that those who, under the decision of 1857, are entitled to eigendomsplaatsen, must, within six weeks prove their right thereto before the landdrost and state the location of the places, and no eigendomsplaatsen were to be given by the Government after that.

Leeningsplaatsen alone were granted now with the stipulation on the part of the Government that roads existing on the land occupied or that should be made, must remain free and open, that travelers might camp and graze their stock on the land, and that a certain rental was to be paid for the annual "recognitie" (renewal of grant).

Owing to the sparse settlement of the country in the beginning, and to its wide extent, it was at first impracticable to survey the land, but in order to locate it sufficiently for administrative purposes, a system of inspection was inaugurated for the purpose of obtaining such a description of the land that in case of disappearance of corner stones they could be relocated. At first the Government established a general inspection, but for the convenience of citizens who wished to claim land under their certificates, special inspections were appointed. This special inspection consisted of a commission of three men, of whom the field cornet of the wyk was one, and accompanied the claimant. The report was sent to the executive council and published for three months, then sent to the surveyor general for examination and for approval provided no one raised objections within a further period of three months. The size of a farm was limited to 3,000 morgens, and it was later prescribed that the periphery of a farm should be such as a horse could step off in one hour, which added about 750 morgens to the area.

April 9, 1866, the first surveyor general was appointed, and in 1870 a separate department was formed for him. Since that time the places have been accurately measured and described at time of inspection. Before proceeding to a survey, the surveyor has to notify the adjoining property holders; the map is sent to the surveyor general and checked with maps of adjoining property, and approved when correct.

In making surveys it was the practice at first to measure and map each place separately, but subsequently combined surveys were made and triangulation used. In 1891 the country was divided into surveying districts, which was naturally followed by greater accuracy of the work, the triangulations of adjoining sections were joined together, coordinates were calculated, etc., so that it became possible to prepare district maps. When the war broke out the general land office was still engaged in the compilation of these maps. The survey, however, is not a geodetic survey. Angles were measured to

1", lines to 10 inches, and in the triangulation artificial points were not used.

The best map in every respect in existence was "Jeppe's Map of the Transvaal or South African Republic and surrounding territories, in 6 sheets, scale 1:476,000, with special maps of Pretoria, Johannesburg, etc." The map was compiled by Mr. Jeppe, chief draftsman in the surveyor general's office, from official and other data, and by his son (subsequently killed at Spion Kop).

During the war the land office reproduced some existing maps (Griqualand West, Natal, Mashonaland, Orange Free State, etc.), and made blue prints from sketches and maps of the British intelligence department that had fallen into the hands of the Boers. The reproductions were blue prints which became scarce on account of the lack of printing paper. But few maps were issued to the officers, most of them were unable to understand them, and in fact did not need them, as they carried a good knowledge of the topography of the country in their heads. General Joubert himself rarely used a map, though he had some surveys made along the Tugela. The Boers have a magnificent eye for ground, and General Botha seems to have had the entire topography of the Transvaal in his head; when in a new district a few simple remarks would be sufficient to give a Boer all the knowledge of it he required. In a country with almost constantly a cloudless sky there was not much need for the use of a compass, and I never saw one used except by the members of the heliograph detachments.

Early in November, 1899, the surveyor general, upon request of General Joubert, sent one of his assistants, a Mr. Jorisen, to Natal to map the country along the Tugela. He triangulated the country from a base of 2,550 feet and completed his work in five weeks; elevations were not measured, but simply sketched in; the instrument used was a 7-inch transit. While engaged in this work, Mr. Jorison also mapped the Boer positions around Ladysmith; the resulting map is herewith inclosed. (Map facing page 141.) He also made a sketch map of Spion Kop, sometimes under fire, using a 4-inch compass; unfortunately, I was unable to procure a copy of this map.

In January, 1900, orders were given for a survey of the vicinity of Colenso, chiefly for artillery purposes. This work

was also done by Mr. Jorison, based on the former triangulation base near Ladysmith.

When the British army moved northward from Bloemfontein, General Botha wanted a map covering 20 miles on either side of the Pretoria-Bloemfontein Railroad; but at that time the burghers were much disheartened and unwilling to make a severe resistance, and allowed the British army to advance so fast that the map could not be prepared.

Lieutenant Du Toit, of the State Artillery, made a very accurate survey of the vicinity of Pretoria for the location of permanent and temporary fortifications; the map gave the entire topography and all distances with great accuracy. The map was held confidential and I was unable to procure a copy for file with my report.

At the head of the surveyor general's office was Mr. Johann Rissick, assisted by eighteen officials; there were in all eighty registered surveyors in the Transvaal. The law prescribes that no one may make surveys unless authorized by the state President and upon deposit of £500. In 1890, 1,716 maps were examined in the office, and 4,224 in 1897. All approved maps must pay a tax fixed by law, in consequence of which the receipts of the office were as a rule greater than the expenditures.

POPLAR GROVE.

At 8 p. m., February 26, we left in a special car for Bloemfontein on a military train bearing reinforcements for General De Wet. The other attachés in the party were Lieutenant Colonel Gurko, of the Russian general staff; Captain Demange, of the French general staff; Lieutenant Thomson, of the Dutch army, and Lieutenants Asselberg and Nix, of the Dutch Indian army; the other Dutch attaché, Captain Ram, was at the time lying severely ill in Pretoria with typhoid fever.

We reached Bloemfontein near midnight on the 28th of February, and on March 1 were presented to His Honor, President Stein, of the Orange Free State, who informed us that General Cronje had been compelled to surrender. On the afternoon of the same day we left Bloemfontein in a violent rain and hail storm and camped at Bains Vlei. Our transportation consisted of one saddle horse for every white person in the party, one six-mule wagon for Colonel Gurko, one six-mule wagon for the Dutch attachés, and one eight-mule wagon

for the French attaché, Mr. Rieckert, and myself, and two Kaffirs for each wagon. Next day we proceeded to Leeuwvlei, and on March 3, by a circuitous route via Surrey and Kaffirkop, to Petrusburg, where we arrived after dark and were entertained for the night by the Dutch-Indian Ambulance. Our transportation was completely exhausted by the time it reached Kaffirkop, and we decided to leave it there and send for it next day. The country seemed almost uninhabited; we passed a number of salt pans (depressions in the ground without outlet, full of alkali), and the roads were heavy with sand. On March 4 we reached General De Wet's headquarters, at Poplar Grove, on the Modder River, and dispatched a messenger for our baggage, which came into camp in the course of the afternoon. We were immediately presented to General De Wet, who received us in his tent and dismissed us after a few complimentary words. General De Wet's headquarters was pitched in an inclosure on the left bank of the Modder, surrounded by a row of prickly pear cactus 6 or 8 feet high; on the east side stood a row of poplar trees and on the west side a double line of fine sycamores, or gum trees. Inside was a small orchard of locust-eaten peach trees which were being used for fuel. General De Wet's tent was pitched under the sycamores; immediately south of it stood his two big trek wagons, and north of it was pitched an enormous green paulin captured from the British, under which the staff found shelter. A few paces from the tent stood a heliograph instrument for sending the General's messages and orders to the nearest kopje, from which they were transmitted to the various commandos in the position. Horses were hitched all over the place, which was none too clean. We also met here Colonel Villebois Mareuil, who had resigned from the French general staff several years before and was now with the Boer troops assisting them with his advice and experience.

In the beginning of the war the Boer forces had taken the field with very little wagon transportation, but after they had settled down before Ladysmith, Kimberley, and Mafeking, and as the investments of these places were dragging along, they sent home for their big trek wagons, all sorts of supplies, and for their Kaffirs. The force at Poplar Grove was plentifully supplied with these wagons; there was an abundance of provisions, chiefly captured from the enemy, meat was furnished on the hoof, forage and other supplies came by

wagon train from the commissariat in Bloemfontein, and water was supplied in iron water tanks on wheels, which I believe had also been captured. There was an ample supply of tentage, forage was not lacking, and camp life was easy and comfortable. Herds of trek oxen, mules, and saddle horses were grazing in rear of the position, guarded by blacks. When a horse is turned loose to graze, his head is tied to the foreleg in such a way that the horse can graze in comfort, but can not stand with head erect without raising the foreleg, and finds running away very inconvenient. The horses are used to this, and after being unsaddled hold up one of their forelegs to have the halter fastened to it by a clove hitch. In the evening the animals are brought in; the mules are tied close together in rows and the corn for the evening meal is poured on the ground in a row at their feet; they are small animals bred from the stallion and female ass, very hardy and strong, and used to any amount of abuse. Depending on the number of mules hitched to a wagon, the man who handles the whip, called sjambok (long bamboo pole with a lash 20 feet long or longer made of rhinoceros hide), sits on the wagon or runs alongside and distributes his favors with unbounded liberality whether needed or not. The lash raises terrible welts, but without the whip the mule will not work, so used are they to this treatment, which seems to produce on them the same effect as profanity is reported to do on our own army mules. The oxen have straps fastened around their horns and are tied over night to the ox chain, which at all times lies fully stretched in front of the wagon ready for hitching up. The horses are tied to wagons, trees (where there are any), rocks, etc.; are groomed and given a bundle of unthrashed oats, which they eat straw and all. When forage is not plentiful the horses are left out over night to graze; indeed, they are so used to grazing that they will immediately fall off in flesh when they can not graze either during the day or night. They are of all sizes, breeds, and colors, from the peculiarly stupid-looking but enduring Basuto pony and the farmer's scrub horse to blooded stallions. The eastern part of the Free State, particularly the valley of the Caledon River, has much fine land suitable for the raising of grain and breeding of horses, and I was informed that very fine race horses had begun to be exported from that section.

The Kaffir played no unimportant part in the war, and it is just as well to introduce him here at the beginning. Under the law of the land the Kaffir can not hold land, though he may own horses and cattle. In order to distribute the Kaffirs as equally as possible over the country so as to make them less formidable, and in order to make him do some work and enable the farmer to obtain "help," the Kaffirs are allotted to Boer farms, not exceeding five families to a farm. The farmer allows the Kaffirs ground on which to raise corn, etc., and to graze their stock, in return for which the Kaffirs do a certain amount of labor for the farmer, tilling the fields, tending the stock, helping in the house, etc. When the farmer travels with his trek wagon, one Kaffir walks in front of the oxen and leads them, while another wields the sjambok. When the Boers went in the field there remained enough Kaffirs on the farms, under the supervision of the farmers' wives, to till the soil. Those Kaffirs who accompanied their "baas" (master) in the field, minded his stock, did the cooking, guarded the belongings of the Boer when absent from the camp, and when the Boer had a spare horse, as most did, he mounted one of his Kaffirs on the spare horse to act as a sort of orderly, carry his blankets, rations, and cooking outfit, and sometimes his gun and cartridge belt besides. One of these Kaffir boys on horseback, loaded down with blankets, carrying his master's provisions in a bag slung from one shoulder and his own belongings in a roll slung over the other, with a big Mauser rifle on his back, and all sorts of pots and kettles dangling from his saddle, was a sight; the heavy cartridge belt was frequently put around the horse's neck. Having these Kaffir boys for the camp work made all the Boers available for the firing line.

The saddles used were of English pattern, and light, and required no blanket, and when the command was given to saddle up, it was but a minute or two before the men began to ride away. Later, when the saddles became worn out and bad, when there were no means of repair, and when horses began to become scarce and the weather cold, blankets were invariably used under the saddle to save the horses' backs. The saddle blanket was put over the horse during the night in the winter season to keep him warm. When I first joined the Boer forces every man had a waterproof coat of some kind, but already they could no longer be had in the market

for any price. Later on these coats became scarce, and were worth their weight in gold, almost. The rifle or carbine was carried slung over the shoulder, or at the "advance," with butt resting on the right thigh, or the butt was inserted into a bucket hanging by two straps from the right side of the saddle, the right hand grasping the barrel about the height of the upper band, a very convenient way of carrying the piece. Another article of equipment, common at first but very rare in the end, was the water sack, made of two pieces of canvas about 7 inches by 10, strongly sewed together, with the neck and mouth of an ordinary glass bottle sewed into one of the upper corners; the ends of a curved piece of strong wire were attached to the two upper corners, by means of which it was carried. On horseback the water sack was usually hung over the instep and the foot then inserted into the stirrup. In hot weather these bags were preferable to canteens, because they cooled the water more thoroughly. Canteens of good workmanship were rare; the best were those captured from the British. The article issued by the Boer Government was a tin cylinder, about 3 inches high and 5 or 6 inches in diameter, covered with light woolen cloth and provided with muzzle and cork. They did not last long, and in the end also became unobtainable, like many other necessities. My own canteen, United States cavalry pattern, was the best I saw there, and too good a thing to last, and disappeared the first time I let it out of my sight.

The clothing worn by the Boers was their everyday garb, topped off by a big slouch hat that afforded excellent protection against the sun. During the latter part of the war the different commandos adopted different colored ribbons around their hats as a distinguishing badge; a great convenience, for one knew then at once to what commando the men belonged.

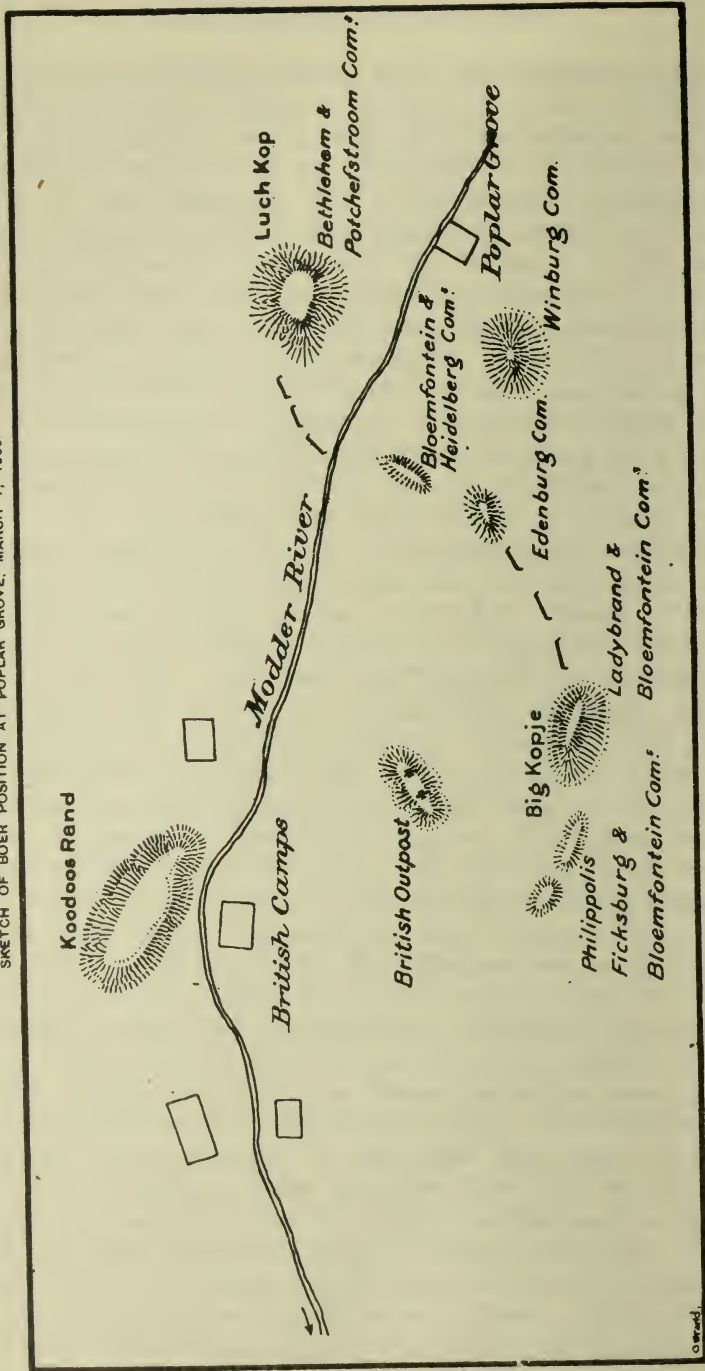
The Boer's cooking outfit consisted of tea and coffee pots, frying pans, and three-legged iron pots. Fuel, when away from the railroad or fence posts, was difficult to obtain, and dry dung was largely used; indeed, the Free State is so devoid of anything in the shape of wood that "mist fires" (dung fires) are the rule, and the dung is nicknamed "Free State coal." The Kaffir boy always had a pot of hot water on the ashes of the fire, and wherever we came we were at once treated to a cup of hot coffee or tea. When traveling by railroad one could go to the engine and obtain hot water with which to make tea or coffee.

The Boer position covered a front of 12 miles, extending from the Luchkop, on the right bank of the Modder, in a south-westerly direction across the river along an irregular, somewhat crescent-shaped ridge, marked with two large and some smaller kopjes and an outcrop of rock from the ground (called a "rand," in the local vernacular); toward the southwest the ridge gradually subsided, in consequence of which the Boer left was completely in the air. On the left bank of the Modder an open plain extended from the Boer position westward to a low ridge about 5 miles distant, on which could be seen British camps. On the north the plain was bounded by the river and on the south by open, rolling country, practicable everywhere for the three arms. On the north (right) bank of the river there was a long, gentle, uniform slope, crowned by a flat-topped hill called Luchkop. With the exception of a short flat near the river, more or less marshy, the slope from the bank of the river to the foot of the hill was uniform; toward the west, however, about a mile from the foot of the hill, the ground began to rise again in a gentle swell, which concealed much of the ground beyond, where the smoke of British camp fires could be seen in the flat. Further to the west could be seen Koodoos Rand, and beyond it Paardeberg, near which Cronje had surrendered. British camps, of which we could only see the smoke, seemed to be everywhere to the northeast and southwest of the foot of Koodoos Rand, and to indicate the presence of a strong force, variously estimated between 30,000 and 45,000 men.

March 5 was spent by the attachés in inspecting that portion of the position which was south of the river, and we were accompanied by Gen. Andries Cronje, a very courteous gentleman, and on March 6 we crossed the river and ascended Luchkop. This hill commanded the ground in its immediate front by about 200 feet, was extremely steep, and its sides were covered with stones and boulders that made the ascent most difficult. On top we found a Krupp gun belonging to the Free State artillery, and we had the location of the British camps and outposts, and the lay of the land pointed out to us by the gunners. Toward the north and in the direction of Boshof, then still held by the Boers, the ground seemed considerably broken and hilly. The ammunition for the gun was being brought up by hand by some Kaffirs, each man carrying two shells. A few days before the gun had been

the mark of a British battery, which after ascertaining the range to the gun withdrew. At the foot of the hill were a few slight trenches which, with intervals, extended south-westward toward the river. This part of the position was held by the Bethlehem and Potchefstroom commandos, whose camps were tucked away against the south side of the hill and concealed from view of the British. On the left bank of the river the line of defense was taken up by an outcrop of rocks rising out of the plain half way between the river bank and the kopjes marking the general line; it was held by the Heidelberg commando and some men belonging to the Bloemfontein commando. The line now joined the crescent-shaped ridge before mentioned, following the kopjes and ledge of rock, and was held here by the Edenburg commando and supported on the left by Big Kopje, a high precipitous, rocky hill defended by the Ladybrand commando and part of the Bloemfontein commando and three guns, one of which was mounted on top of the hill. South of Big Kopje the ridge subsided rapidly and changed its direction more to the west. Here were the Philippolis and Ficksburg commandos and part of the Bloemfontein commando, with one Krupp and one Maxim-Nordenfelt. From the ridge just described the ground fell away uniformly into the plain in the direction of the British camp in the distance. In front of the kopjes were a few slight trenches. The British camp on the ridge bounding the plain on the west was plainly visible, and we could see mounted patrols and one or two batteries moving about. Opposite and some distance from the rocks in the plain held by the Heidelbergers was another outcrop held by the British as an advanced post, and we were told that two guns were posted there. The Boer camps were tucked away behind the hills and the guns skilfully disposed among the rocks; the Boers themselves were also there and did not show themselves in front. We wondered how the Boers managed to drag their field guns on top of these precipitous, rocky hills, and how they would get them down again in case of a sudden retreat, and we were told that they attached a long ox-chain to the gun, and, after clearing the largest boulders out of the way, 200 men would drag it up the steep slope in no time. All through the war I observed that the Boers could get even their heaviest guns into any kind of position, no matter how high the

SKETCH OF BOER POSITION AT POPLAR GROVE, MARCH 7, 1900.



mountain or how steep and difficult the slope, and would get them out again before it was too late. Every gun had an intrenchment around it made of rocks and sandbags. Big Kopje was prepared for an obstinate defense and shelters for riflemen had been prepared along its crest by heaping up stones into piles about 5 feet long and 3 feet wide and 3 feet high.

In rear of the line and about 1,100 yards from the river, there arose another big kopje used as a signal station; in rear of this hill lay the Winburg commando, with two guns, as a sort of reserve. In all there were present about 2,500 Boers and 7 guns. The position was skilfully taken up and flanked any advance along the river, but the left was bare and invited a turning movement. The inclosed sketch made from memory gives approximately the general situation.

There had been rather poor scouting service, and in consequence General De Wet had just organized a volunteer scouting corps, so as to get better information of the enemy. Reports were current that Ladysmith had been relieved, and that the Boer forces were withdrawing from Cape Colony.

The situation was not a promising one; heretofore the Boers had been able to fight in their own way; they are not what we understand to be trained soldiers; they are excellent shots and fine horsemen, and theirs is the instinct of the hunter rather than of the soldier; they have an immense eye for ground and prefer the strategic offensive and tactical defensive. As long as they had plenty of rocky hills where they could ensconce themselves and prevent turning movements of the numerically superior enemy, they were in their element. But Cronje's disaster had opened an entirely new phase of the war; not only had the Boers lost over 4,000 men, a considerable portion of their meager force, but the disaster was most disheartening to them and the enemy had now entered into a comparatively open country where he could maneuver and was not confined to frontal attacks, and where the Boers could find no position that could not be turned. With them Cronje is not the hero the British have made of him to enhance their victory; he is looked upon rather as the source of all the misfortune that has since befallen the two Republics, the more as he might have withdrawn in time from the clutches of the British army. But he was an obstinate man and the only general whom the Boers obeyed from

fear; he had been commissioner of natives and always carried a whip in his hand. An attack on De Wet's position along the river would have been unwise for tactical reasons. If the British army turned De Wet's left, it would gain the nearest road to Bloemfontein; it would gain the Bloemfontein-Colesberg railway; it would be able to establish a new and convenient base with direct railway communication in the enemy's capital; it would be in position to intercept the Boer forces coming up from the Orange River, and in conjunction with the British troops pursuing from the south, corner them. De Wet would either have to regain the railway somewhere between Bloemfontein and Kroonstad or swerve to the north and establish connection with the forces at Boshof and Fourteen Streams and be eliminated for the present as a factor in the southern part of the Free State.

I estimated the British forces to be strong enough to turn both flanks of De Wet, bringing their heaviest pressure to bear on his right, and on the other hand preventing him from entering Cape Colony or Rhodesia. Such a movement on the part of De Wet, however, was not to be anticipated at that time, inasmuch as a stubborn defense of Bloemfontein was being discussed, and the Boers had not yet come to realize that their main strength lay in their mobility and in raiding the enemy's outlying posts and communications.

I did not know then that the state of the British means of transportation, of their supplies, and, above all, of their cavalry, called for the earliest possible establishment of a new base with direct railway communication. Under the circumstances General Roberts very naturally decided to turn the Boer left, whose weakness, moreover, invited that movement, and to establish himself with his large force in the enemy's country.

During the night from March 6 to 7 reports were received from the Boer left that the enemy was about to turn that flank, and asking for reenforcements. The request seems to have remained unheeded. Early in the morning artillery fire was audible on the left, and the British balloon could be seen hovering in the air. The attachés had prepared to proceed to that flank, when we were informed that President Kruger was approaching. We then went out to meet him and accompanied him to headquarters, where he exhorted General De Wet to hold his ground. At this time, about 10

a. m., the British artillery fire increased, we gave orders to have our baggage packed and loaded, and proceeded with General De Wet to the signal-station kopje, whence we had an extensive view. To the north, on the right bank of the river, British detachments could be descried here and there, and some shots were fired from the Krupp gun on Luchkop. In the plain on the left bank at our feet a British battery was shelling a farm on the bank of the river about 1,000 yards in front of the Heidelbergers, while another battery was shelling the Boer position around Big Kopje. On our left rear we saw a long column proceed across country in an easterly direction; so far as we could make out two batteries of this column seemed to be in position facing north, and we decided that that was the British turning column, and it was. Meanwhile the Boers had struck their camps and loaded their wagons which came in from the left, and took the road along the river to Abrahams Kraal, followed by their owners. About 10.45 a. m. we could see deployed infantry in the plain below advancing slowly and cautiously against the farm on the river bank which had been shelled by the artillery. About the same time a long deployed line advanced against the left of the position, but unfortunately Big Kopje shut the extreme left out from our view. The distance was considerable, the advancing British soldiers looked like pins on the green background and were barely visible. As it looked from our point of view they seemed deployed in six or eight lines, with about five paces between men and ten paces between lines. On reaching the farm house the British troops there halted and re-formed. The British troops attacking from the south seemed to be deployed in a similar manner, except that there seemed but three or four lines. About the same time General De Wet dispatched one of his adjutants to the Heidelbergers with orders to withdraw and leave a small rear guard, and then left the hill. At 11 a. m. we saw the Boers evacuate their stone ridge in the plain. Meanwhile the big turning column, now estimated by us as a division, continued its easterly movement apparently without opposition except that one of the Boer guns near the Big Kopje fired three shots at it. The wagons kept on coming in from the left, and in spite of the turning movement and the near presence of an overwhelming British force no one seemed in a hurry. We watched our own wagons leave the former headquarters camp the last,

and at noon, when the British troops drew near, we left our hill to follow the retreat. Less than a mile from our former camp we found Colonel Gurko's wagon with a broken axle, and without mules or Kaffirs. There were no other wagons to take his belongings along, and he decided to remain there and ask the British commander to help him out with a wagon, expecting to be able to rejoin us in a few days. Lieutenant Thomson of the Dutch army remained with him. About noon the turning column seemed to have come to a stop, and a hill in front of it was shelled by British artillery. The hill, we were told, was obstinately held by a small detachment from Petrusburg that had been heliographed for and lost 20 of its 40 men.

About 800 yards east of the broken wagon was a rocky ledge, into which the Boer rear guard threw itself and opened fire on a squad of mounted British troops who were approaching Colonel Gurko's wagon, but on being told that Colonel Gurko was there also they immediately stopped firing. Colonel Gurko and Lieutenant Thomson then walked along the river bank back to Poplar Grove without encountering a single hostile patrol, and emerged suddenly in the open near the British headquarters. * * * They were kept several days at Poplar Grove; then sent to Kimberley and Cape Town, and there informed to hold themselves in readiness to proceed to Europe on the next steamer. * * * Eventually they were allowed to go to Delagoa Bay and rejoin the Boers by that route, losing an entire month by the breaking down of the wagon.

Captain Demange, the French attaché, and myself joined the Boer rear guard, which was soon reinforced by three guns. The British balloon was visible at Poplar Grove and presented a tempting target but after three or four shots the Boer guns withdrew just as a British battery opened fire on them. These guns had been on a rocky ledge about 50 yards behind us; the British guns found the range with a few trial shots, and after that hit the ledge every time; as they confined themselves to percussion fuze everybody walked around unconcernedly in front of the position. Eventually, as no British troops approached, the men of the rear guard withdrew in small groups, each followed by six shells from the British battery. Captain Demange and myself remained for some time longer to watch this artillery fire, now using

shrapnel, which lasted for nearly an hour longer, and then withdrew to rejoin the Boers, with no one between us and the British.

There was no direct attempt on the part of the British to interfere with the retreat of the Boers.

We reached Abrahams Kraal at 7 p. m. and slept there. The Johannesburg and Pretoria police reached Abrahams Kraal the same night and took up positions which they intrenched, and General De la Rey arrived also next morning with some reinforcements. But the disasters that had lately overtaken the Boers disheartened them; instead of remaining at Abrahams Kraal many kept on going to the rear. Having lost touch with General De Wet and not knowing what was going to be done, the attachés decided to go back to Leeuwvlei early next morning and await events. My horse was worn out and sick, and unable to carry me, and I covered the distance on our baggage wagon and missed the action at Abrahams Kraal (called the battle of Driefontein by the British accounts) on March 10.

The demoralization of the Boers was such that but few remained in the front, and I doubt whether 1,500 remained to fight at Driefontein. That action was chiefly fought by a handful of Pretoria and Johannesburg police, who held their ground and repulsed several attacks until dusk, when their ammunition gave out and they had to evacuate the position.

After the defeat at Abrahams Kraal, the demoralization of the Boers and of the Free State Government was complete; the defense of Bloemfontein was still being urged, but there were not enough troops remaining for that purpose; the seat of government was transferred to Kroonstad, and on Sunday, March 11, we were informed by our guide that we must leave that night by train, as otherwise the Government would not be responsible for our safety from the British army. Accordingly, we loaded our horses and wagons on trucks and left at 10 p. m. for Brandfort, a station about 40 miles north of Bloemfontein, where there were good positions and where we would be favorably located for watching events. A number of engines and cars which had not been removed from Bloemfontein eventually fell into the hands of the British.

On March 12, at Brandfort, we learned that the British had cut the railroad south of Bloemfontein, and that a British column was advancing north of the Modder in the

direction of the railroad between Brandfort and Smaldeel. This last report was not true, but it was something we all expected. Boers were constantly coming along with their trek wagons going homeward. As our transportation was not in condition to stand a rapid and continued retreat and as we expected British mounted troops to come sweeping the plains of the Free State, we decided to move farther north. Before doing so we rode on the 13th of March to the Modder River to see the railroad bridge blown up, but found that no preparation whatever had been made for its destruction; save for some retreating Boers on exhausted horses the vicinity of the bridge was deserted and General De Wet's command was crossing the river a few miles farther up. Strange as it may seem, no British troops arrived at the Modder railway bridge until March 16, although they had entered Bloemfontein on the 12th and the bridge was but 19 miles distant. These troops withdrew the same day, and that night the bridge was blown up by a command under Captain Theron, an intrepid man who commanded a scouting company, the actual work of destruction being done by an American engineer whose name was Turner. He said to me that he first blew up two piers, dropping three spans into the water, and that he then destroyed each span by charges placed about their middle. General Joubert arrived by special train at the bridge on the 13th and held a consultation with General De Wet.

On the night of the 13th we went north by train and established ourselves at Kroonstad. During the ensuing time of waiting we learned nothing of De Wet, though we were eventually told that Generals Lemmer, Olivier, and Grobler had made good their retreat from the south by an arduous retreat of twenty-four days along the Basuto border, and that the British army was remaining quietly at Bloemfontein, and it gradually leaked out that this army had arrived there in a condition bordering on exhaustion and requiring rest and reorganization.

On entering Bloemfontein General Roberts issued a proclamation calling upon the burghers of the Free State to lay down their arms. Many of the Boers were tired of being in the field; now they were demoralized by repeated defeat, by the invasion of their country, and by the realization of the fact that in the open country they were no match for the British army on account of its superior numbers and maneuvering

powers; many of the burghers living south of the Modder laid down their arms in compliance with the proclamation, and many more, living farther north left the army and went home disheartened, reducing the Boer forces at an alarming rate.

The Boer Government had made overtures to the British Government in the beginning of March and after Cronje's surrender had made a further overrunning of the Free State by the British army certain, and the answer received had been discouraging. On March 18 the Presidents of the two Republics addressed a large gathering in the public square at Kroonstad and called on the burghers to defend their country to the last man. Afterwards a council of war was held, where it was argued that the losses of the Boers having been smaller and those of the British greater whenever the Boers attacked, the pure defensive heretofore pursued must be abandoned, that a vigorous offensive must be taken, and that it was necessary to harass and cut up the enemy by sudden dashes, and that in consequence all wagon transportation must be abandoned to admit of rapidity of movement and withdrawal, the enemy having now arrived in a flat and open country which afforded great scope of action for his cavalry and artillery. The necessity of operating against the British communications as the enemy's most vulnerable point also seemed to have come home to the Boers on account of the exhausted condition of the British army at Bloemfontein, though they do not seem to have grasped the importance of preventing Lord Roberts from forming a base at Bloemfontein, as subsequent events will show.

On March 19 President Stein issued a counter proclamation to that of Lord Roberts, in which he stated that the Government of the Free State was still in existence and discharging its functions, reminding the burghers of their duties toward the State under the laws of the land and informing them that the laying down of arms or giving the enemy aid in any way was high treason. On March 20 President Stein, accompanied by the attachés, proceeded by special train to Zand River and Smaldeel to address the burghers, of whom a very small number were at Smaldeel, not more than 25, and about 300, with 600 horses, at Zand River.

At the first alarm after the taking of Bloemfontein the Boers had destroyed the bridge at Brandfort and that over

Vet River, about 5 miles south of Smaldeel, which they afterwards bitterly regretted, because for a month and a half afterwards, while their forces operated in the southeastern part of the state, all supplies had to be hauled 30 miles by wagon from the rail head at Smaldeel to the commissariat at Brandfort and thence to the troops in the field. Making a virtue of necessity, many of the burghers were allowed to go home in the hope that they would come forward again after enjoying a little rest with their families.

For nearly two weeks after the capture of Bloemfontein the Free State was open to the British army as far as Kroonstad. On the right Boshof had been occupied by Lord Methuen's forces, a source of much disquietude to the Boers. On the other hand, Lord Roberts's forces, in cooperation with the British columns moving north from the Orange River, had permitted the forces of Grobler and Olivier to escape unscathed, and they were now in the vicinity of Ladybrand on the right flank of the British army. Inasmuch, however, as Ladysmith had been relieved, as well as Kimberley, and the western frontier and the south of the Free State were in the hands of the British, and the Boers henceforth never could muster sufficient forces for an effective stand, it became plain that the problem on the British side consisted mainly in massing men and supplies and preparing for a final, decisive campaign. While the Boers managed to remain in the southeastern portion of the Free State until the beginning of May, the campaign from that time on had little of military interest so far as the side of the Boers was concerned. Much of the time the attachés could not find out what was going on or where any particular command was or what commands were in the field; the consequence was that we did not see much of the operations.

SANNAS POST.

On March 26 President Stein informed us that Olivier and Grobler were safe east of Bloemfontein and that General De Wet was at Brandfort meditating a coup against the enemy, and inviting us, in case we desired to join General De Wet, to accompany him in his private car as far as Smaldeel. We arrived there at 4 p. m., slept during the night in the Dutch-Indian ambulance, and left early next morning on horseback for Brandfort, which we reached at 2.30 p. m. after

a hot and dusty ride of 30 miles. We carried a special letter of recommendation from the President, and when we called on General De Wet we were cordially received and invited to ride with him next day after dark; he intimated that he would send one column direct against Bloemfontein and one between Bloemfontein and Thaba Nchu. Someone told us that there were 28 guns and 3,500 men concentrated near Brandfort, but we did not see that many; perhaps some of the commandos were located at some distance.

On the evening of March 28, as we prepared to saddle up, some 600 Boers rode into town in column of twos, the rifle at the advance, and passed in review before General De Wet. They presented a martial and formidable, if not military, appearance and were full of enthusiasm. Someone had relieved most of our horses of their halter straps, and it was a little after dark before we could proceed to join General De Wet on a grassy plot east of the railway station. It was pitch dark; one of the commandos had stopped to sing psalms, and we had some difficulty in finding the General. Our led horses insisted on running around us in a circle; we lost the led horses and each other; some kind Boers captured our horses for us and in the end we came together again, but were unable to find the General. However, we marched somewhere in the column, sometimes we managed to forge a little ahead; two of our horses developed colic, and after marching continuously until about 1.30 a. m. we were, without knowing it, at the heels of the advance guard. For the night we tied the horses two and two together and turned them loose. At the first peep of day we all rose, saddled, and rode off to follow the advance guard. In passing a farm house we were invited to a cup of coffee, which was gratefully accepted—we had nothing with us except a few tinned provisions on one of the spare horses; beyond the farm we passed some Boers camping in the grass, and after awhile passed the German ambulance on its return from the British lines. It had fallen into the hands of the British at Jacobsdal. Dr. Kuettner, the surgeon in charge, I had met five years before in Germany, and he told me among other things that there were no Boers in front of us on that road.

After crossing Kliplaat Drift we ascended the high ground to the south and halted at 7.30 a. m., as in spite of the extensive view not a soul was in sight. Here I left my led horse

in a dying condition. A solitary Boer, unarmed, coming from the south, informed us that there were no Boers in that direction, so we retraced our steps to Kliplaat Drift, where we found a small outpost which was unable to tell us anything about General De Wet. About 11 a. m. General Frohmann came along and told us that General De Wet had changed his plans and direction of march during the night and had swerved with the main body to the east to the farm of Martinus Grobler and that the advance guard and we had outmarched him. In company with General Frohmann we reached General De Wet's headquarters about 2 p. m. Everybody was lying in the grass and in the sun; there was no shelter of any kind, as wagons were not taken along, and General De Wet's little square tent was the only one in evidence. Here we also found our guide, Mr. Rieckert, and the French and Norwegian attachés, who had left Kroonstad the day after our departure and had reached De Wet after a night march. We were unable to learn anything from the General regarding our destination. In the course of the afternoon a council of war was held, in which there was much wrangling because one of the commandants insisted on taking wagon transportation along in spite of the President's orders to the contrary. Some disquietude was caused by the report that a small British patrol had reached a point from which it could see General De Wet's force, and had escaped capture. At the time I was rather inclined to believe that someone had seen the two Dutch attachés and myself that morning far in front of the Boer line and mistaken us for a British patrol.

At 5 p. m. we saddled up, and column for the march was formed in military style. When all commandos had taken their proper places, we dismounted and waited for darkness before crossing the rise of ground concealing us from view from the south. On repeated inquiry we were told by General De Wet that he did not know yet whether he would go in the direction of Bloemfontein or Thaba Nchu. At 11 p. m. we reached Vrede, a farm of Mr. Marais, on Os Spruit, and tucked ourselves away during the cold night against the warm side of a stone wall. During the night march we had abandoned a second spare horse in a dying condition. In the course of the morning we learned that General Olivier was at and south of Ladybrand; that General Botha was on the railroad between Brandfort and the Modder River, and that our

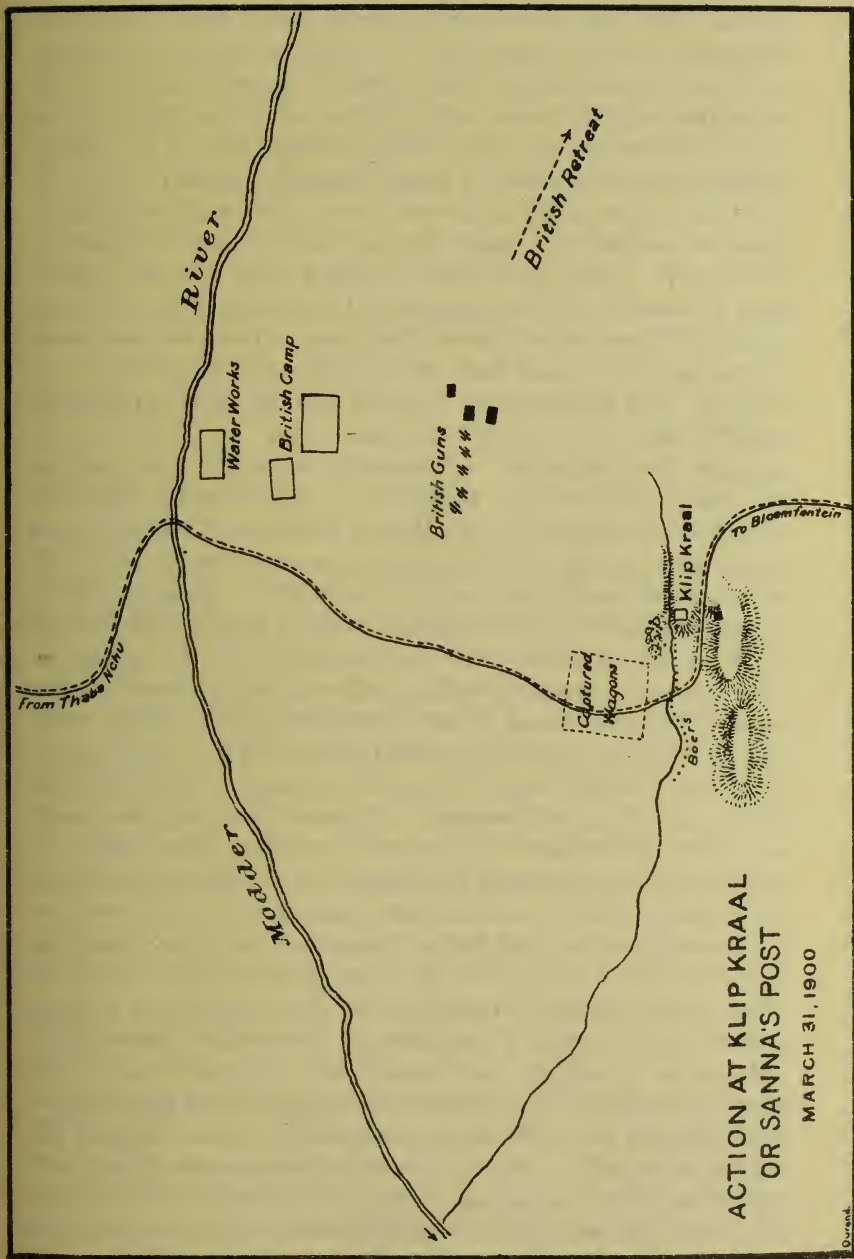
column numbered 1,500 men, with five guns, one Maxim-Nordenfelt, and one small Maxim, and consisted of the Bloemfontein and Modder district commando, under Commandant Fourie; the Kroonstad commando, under Commandant Nell; the Ladybrand commando, under General Frohnmann, and the Winburg commando, under General Wessels.

At 4 p. m. on the 30th of March there was another council of war, and at 5 p. m. everybody saddled up. General De Wet led the column, followed by an advance guard of about 50 men; in rear of the advance guard rode the attachés with their guide; behind us came the commandos. The night was pitch dark, the road most of the time very bad and full of rocks. About 9.30 p. m. a scout (a former German officer) came in and stated that he came direct from Thaba Nchu, that there were 6,000 British there, that a garrison of 200 was at the waterworks, and that an ox train of 180 wagons was en route from Ladybrand to Bloemfontein. Our destination was still unknown to us. Some time after midnight we reached the Modder River. As it was strictly prohibited to strike matches, I could not determine the hour, nor could I learn by what drift we were crossing. At 4 a. m. we reached a creek and saw fires some distance in front of us. Here the commando halted, and we learned that the fires were in the British camp, and that only 400 men without artillery had followed us, the remaining troops having diverged eastward at a point 10 or 12 miles north of the Modder, in order to attack the British from the east (probably because Grobler and Olivier could not arrive in time to take part). We then went with General De Wet to Klip Kraal, a house situated about 200 yards above the crossing of the creek, where we dismounted and had some coffee and bread and butter. Silent De Wet seemed in good humor and gave us a friendly nod.

At 5 o'clock we went back to the creek, where the 400 Boers were taking up a position. The bed of the creek is about 15 feet below the level of the ground. The horses were tied together in rows and standing on the further bank next to the water. The Boers themselves lined the further bank, on which, to the left (north) of the road, as seen from us, there stood a trek wagon with some cattle, around which some Boers were busying themselves during dawn, so as to give the semblance of having camped there during the night. West of the creek (in our rear) there was a small flat not more than

50 yards wide, beyond which the ground rose in a slight swell of about 30 feet parallel to the creek. This little ridge turned eastward at right angles about 200 yards above the crossing and ended in an abrupt slope facing the creek. At this point, immediately above the creek, stood Klip Kraal, and a few yards to the west, at the angle of the ridge, there was a stone inclosure. Just north of the crossing a wire fence, running east and west, crossed the creek and passed through a dip, which separated the ridge just mentioned from an adjoining one on the north, which was more conspicuous on account of a few small rocks lying at the highest point. The descent into the creek from the east was steep, and there were about 4 inches of water at the crossing. General De Wet himself, rifle in hand, stood on the right of the road at the point where it reached the level ground on the further bank. Between us and Klip Kraal, on the further bank, there was a small group of trees, where there were some 15 Boers stationed. The inclosed sketch made at the time approximately gives the situation.

When it was broad daylight and before the sun had risen, an unarmed Boer came riding across the plain from the east and held a conversation with General De Wet. I wondered how he could pass by the English camp without being held. Meanwhile the sun rose and displayed in the distance the hills facing the Modder River, and in our immediate front a level plain bounded on the east, north, and west by the Modder River and our creek, called Koornspruit. This plain gradually rose toward the south in a long gentle slope, the crest of which seemed several miles distant. About 1,200 yards to the southeast there were three houses, and at the distance of about a mile there appeared a large square, out of the middle of which rose a high smokestack, and at the south end of which some conical tents could be seen. At first we took the square to be the inclosure of the water works, within which was the camp of the garrison of 200 men; we, the attachés, did not know yet that the wagon train with its escort of 2,000 mounted men had reached the waterworks and that the square we were looking at was the wagon park and nothing else. We waited impatiently to see the wagon train come from somewhere down to the Modder River, when suddenly, at 7 a. m., two Boer guns opened fire on the square in our front at long range (over 5,000 yards); finding the range too



great for their black powder Krupp guns, the artillery moved to a point about 1,000 yards nearer, when we could see the shells fall into the inclosure. The troops in the camp could now be seen to stand to horse and to draw away toward the south to get out of the artillery fire, none of them advanced toward us on the road by which their transportation must proceed. The large square began to dissolve and we realized for the first time that it was the wagon park, and a long train of wagons moved toward us, the rear end hidden by dust. About 7.30 the first wagons reached the creek. They were light ones and contained the baggage of the command; they were taken across the creek and parked in the small flat there, after the few soldiers with them had been made prisoners. General De Wet himself stood at the crossing and called to them "hands up" and "come in," which they did. These baggage wagons were followed by the large trek wagons. The large wagons were not allowed to cross the creek, but were directed by De Wet to pull out to the right and left of the road. Soon there was a big mass of wagons accumulated at the crossing. General De Wet had given strict orders that no shot should be fired until he himself had discharged his piece. A little before 8 o'clock, perhaps 7.45 a. m., a body of mounted troops came galloping toward us across the plain, halted, and dismounted, rifle in hand, about fifty paces in our front. A few of the Boers across the creek got up and called to them "come in;" some of them threw down their arms in disgust and came in. Meanwhile—so I was told by our guide, who acted as interpreter for General De Wet—the General had called in the captain of these troops and told him to surrender, as resistance was useless. The captain rode back and gave the command to fall back, when General De Wet shot him off his horse. At this time, I noticed a few guns on the right, south, of the mass of wagons, and on looking through underneath the wagons, I noticed more on the other side; their line of march was obliquely across the wagon train with the evident intention of withdrawing from the tangled mass. When General De Wet had fired the first shot, the Boers opened fire along the line. The mounted infantry threw themselves on their horses and galloped to the rear, but many were shot down before they got far away; the teams of the guns on the other side of the wagons were shot down, the guns remained helpless, and most of the officers

and men came in with hands up; five of the twelve guns made good their retreat and came in action near the three houses and opened fire a little before 8 a. m. on the little ridge in rear of us. Before 8 o'clock we could hear small-arms fire on the banks of the Modder near the waterworks. The rear of the wagon train kept on closing in, and even before the Boers had opened fire a large part of it was lying helpless in our immediate front under the Boer rifles.

The firing on the right bank of the Modder moved gradually southward, and the British troops were spreading more and more until they seemed to me to cover the entire distance between Modder River and Koornspruit. The Boer artillery beyond confined its fire to the British troops near the Modder and did not engage the five guns firing on us.

About 9 a. m. the British artillery ceased to fire on the ridge in our rear and opened on the Boers in the creek, the gunners having evidently discovered by this time that the small-arms fire they received was coming from the creek. The infantry fire on the banks of the Modder proceeded farther and farther south; about 10 a. m. the British artillery fire ceased, a few men were seen coming forward near the three houses and opened small-arms fire, while the guns withdrew. About 10.30 a. m. the whole British forces could be seen in full flight galloping up the long slope toward the south, hotly pursued by mounted Boers.

Lieutenant Nix, one of the Dutch attachés, was severely wounded by a shrapnel bullet, and after bandaging the wound and ministering to his wants, we left him in charge of Lieutenant Asselberg.

When Captains Demange and Allum and myself rode away the ground showed little trace of what had occurred there; a few broken wagons, a few dead animals, and a Kaffir accidentally killed, and the wagons of the British medical personnel were all that was left. The prisoners and captured guns had been marched away as soon as the British troops began to retreat, and I saw none of the frightful spectacles with which some war correspondents have credited the scene of the struggle; on the contrary, I was much surprised on seeing such a clean field.

So far, the result of the day had been disastrous to the British forces; they lost all their baggage and supplies, seven horse artillery guns, about 100 large transport wagons and

1,000 draft animals, over 400 prisoners, and, as I have since learned, about 100 killed and wounded; the Boer losses consisted in 2 men killed, 11 wounded, and 1 attaché wounded. The two dead Boers were placed in the only Boer ambulance that reached the field, and as we did not wish to place our wounded fellow attaché, Lieutenant Nix, in that wagon, we had requisitioned a captured Cape cart for him.

The British disaster was due to the neglect of the most ordinary precautions; mounted patrols sent out on the road at daylight would have discovered the Boers on Modder River and Koornspruit. The wagon train marched as unconcernedly as though it were on the plains of Aldershot. I have since read in British reports that the leading scouts passed over the Boers in Koornspruit without seeing them, and all sorts of arrant nonsense in newspapers as to how Boers can make themselves invisible; the simple fact is that there were no scouts.

About 1 p. m. we reached the waterworks on the banks of the Modder, where we stopped to rest and feed our horses. About 2 p. m. a cannonade opened from the west where British reinforcements had evidently arrived. At 3 o'clock we rode back toward Koornspruit and saw our position of the morning cannonaded from the west, but seeing no British troops, being unable to find General De Wet, and our guide having been ordered to duty with an ambulance, we decided to retrace our steps to Brandfort. So we rode off, crossed the Modder at the drift, and then struck across country, following the trail made by the march of the British prisoners and guns, and found them in camp among some hills about 5 miles from the battlefield. After dark we reached a place called Jacobsdale with exhausted horses and spent the night there; early in the morning we were routed out by the approach of a squadron of British cavalry, but managed to make our escape by a circuitous route and reached Brandfort at 8 p. m. on April 1.

BRANDFORT.

Our horses were now in such poor condition that we were immobilized for some time and in the end had to get fresh horses altogether. By returning to Brandfort we had lost touch with General De Wet and could not learn anything of what was going on; rumors would reach us several days after

the event, distorted and exaggerated, and our existence was one of unenviable suspense, and nothing remained for us but to content ourselves with waiting for the British advance along the railroad, which we knew must come some time.

There were two commissariats in Brandfort, one of the Free State and one of the Transvaal, but as they depended for supplies on wagon transportation from Smaldeel—the bridges at Brandfort and Smaldeel had been blown up in the first panic after the capture of Bloemfontein—neither commissariat could furnish much, which was particularly true of forage.

We learned from the Boers that in the action at Karree Siding, 10 miles south of Brandfort, they had lost heavily, having 30 men killed and wounded.

Colonel Villebois, formerly of the French army, had been made a "vecht generaal" (means something like acting general) and given command of all foreigners. He organized his command at Kroonstad; his adjutant was Comte de Breda, also former officer of the French army. At the beginning of April Colonel Villebois started with part of his force toward Boshof, where the presence of Methuen's forces gave the Boers much concern. April 5 he was rounded up by the British and his force killed, wounded, or captured, none escaping except a few Boers that had been with the command. Colonel Villebois himself was killed. The affair shows the difference between the European soldier and the Boer; the former does not hesitate to get himself into a dangerous position and to stand his ground, the Boer's natural instinct prevents him from compromising himself beyond the limits of safety. The remainder of the corps, consisting of Frenchmen and Germans, and some Dutch and Russians, came to Brandfort. It was rather odd to see the Frenchmen and Germans sit peaceably together of an evening and sing the Marseillaise and the *Wacht am Rhein* in the best of comradeship.

On March 27 Commandant General Joubert had suddenly died, sincerely lamented by the people of the two Republics, but there was an undercurrent of relief, for many blunders committed during the war were laid at his door, and then the war had brought out a number of strong men who had proved their ability. He had done much for his country, but the direction of a great war without a general staff was too heavy a burden for the kindly old general's shoulders and he shrank from taking risks, the direct consequences of which were the

demoralizing and useless sieges of Mafeking, Kimberley, and Ladysmith, instead of a prompt and powerful invasion of the Cape Colony, advocated by the younger blood. Upon his dying request General Louis Botha was appointed acting commandant general until one could be elected in the constitutional way. General Botha was about 36 years of age, 6 feet tall and of powerful frame, and of almost superhuman patience and good temper. With his four brothers he had grown up on a farm in the southeastern part of the Transvaal, and whatever the five brothers knew they had taught themselves from such books as they could get. General Botha spoke English fluently.

On April 2 we learned that, among other things, the Boers had captured at Sannas Post, in Colonel Alderson's baggage, itineraries made by a British major of engineers in 1896 and 1897 of routes from Kimberley to Bloemfontein and Kroonstad via Brandfort and Winburg, and from Mafeking to Johannesburg, a little to the south of the route pursued by Dr. Jameson in his raid. The documents, we were told, were marked "Secret, No. 215," and extracts from them appeared subsequently in the Transvaal papers. These papers also contained a statement from the British intelligence office that the Boers had 36,000 men and 88 guns in the field; the date of this statement I could not learn. There were also found messages that had been sent from Kroonstad to the British at Bloemfontein by heliograph via Kopje Alleen, Thaba Nchu, and De Wets Dorp, plainly indicating that there were traitors in the Boer camp in easy communication with the enemy. Attempts to intercept the guilty parties were made, but, so far as I could learn, without success.

On April 4 we heard that De Wet had gone south from Sannas Post and was engaged between De Wets Dorp and Reddersburg, and next day the news came that he had intercepted the garrison of De Wets Dorp between Kaffir River and Reddersburg, the British losing 105 killed and wounded and about 500 prisoners, and 12 wagons loaded with provisions.

On April 8 a rumor drifted in that 16,000 British troops with 35 guns were marching from Boshof on Hoopstad and Kroonstad, and on the following day we heard of the fate that had overtaken Colonel Villebois and his men.

On April 12 we moved a few miles to the southeast of Brandfort and camped near the Wakkerstroom commando,

with which there were Colonel Trichardt, commandant of the Transvaal State Artillery, with his staff, and two 75-millimeter Creusot guns and one Maxim-Nordenfelt. We hoped in this way to come in touch with troops, get more definite news, and see something; we all were anxious to see the artillery in action. In the evening the men of the Hoopstad commando came up from the southeast on the way home, as 2,000 British troops were reported advancing toward that town; the commando numbered about 125 men.

April 13 we met General Kolby, who informed us that a detachment of 40 lancers had occupied a small kopje about 3 miles south of our position. It being Good Friday, he did not feel like turning out his own command, which, moreover, was camped on the other side of Brandfort, and he could not get volunteers from the commands east of Brandfort to drive the lancers off. In consequence the lancers remained undisturbed. The Boers carry their religious scruples so far that, in the church we attended at Brandfort, the organ was not played for Sunday service because any kind of music was considered too frivolous in time of war and misfortune. On the same day, we were told, a major of the British medical department walked unopposed into Brandfort from the south carrying a small Red Cross flag, for the purpose of making arrangements for the removal of a badly wounded Boer from Karree Siding into the care of his wife, who was living at Brandfort. On the outskirts of the town an officer of the police met the British officer, and when he expressed his surprise at not seeing any Boer camps the police officer pointed out their locations until General De la Rey's appearance on the scene put an end to the farce.

Fearing a British advance by the railroad from Tafelkop, 10 miles south, General De la Rey directed the German dynamite commando to mine the track. This detachment consisted of half a dozen German ex-officers, commanded by Baron von Schierstaedt, the inventor of an apparatus which was placed under the rails to be exploded by the engine passing over it. The apparatus consisted of two cylindrical sleeves fitting over each other, about 4 inches long, with a diameter of 3 inches; in putting the two sleeves together a spiral spring around a firing pin was compressed and held in position by a pin of brittle steel. The weight of the locomotive passing over it would break the brittle pin, release the

firing pin and thus explode the cap and ignite a quick match for the detonation of two charges of dynamite placed so as to blow up the front and rear wheels of the locomotive at the same time. I am not aware how the invention worked, but have seen in the papers a report that these engines of destruction were discovered by the British engineers and removed.

On April 15 we learned that De Wet had surrounded a body of British troops south of Bloemfontein (he had surrounded Colonel Dalgety at Wepener about the 6th of April). Next morning we discovered that the Wakkerstroom commando and the artillery had silently shifted their camps about 2 miles to the north.

Having been unable to improve our situation by camping with a commando, we returned to Brandfort to meet the Boer generals there and get some information from them. We did not know the strength of any command nor its whereabouts, though we had gradually gained some idea of the general situation. The most conflicting rumors reached us; one day the British had taken Sannas Post, then they had not, then they had inflicted a defeat on the Boers, or had been surrounded by them somewhere. Finally a council of war was to be held and we were to be informed of its conclusions. But as it turned out, Christian De Wet, who was commander in chief, had not placed anyone in command before leaving for the south; there was no such thing as command by virtue of seniority and the generals at Brandfort were without a head. When the council of war was to be held, General De la Rey had gone off on a two days' reconnoissance to the south-west; when he had returned someone else had gone, etc., and the council of war was never held.

On April 21 a false report came that the British were advancing on Brandfort, and on April 23 another report came by one of the dispa'ch riders that he had seen a British force of 20 guns and 4,000 men on the march 9 miles southeast of Brandfort. We went out early next morning, but saw nothing of the enemy.

On April 25 General Smuts invited us to join him in a demonstration which General Kolby was going to make next morning with 2 guns and 400 men against a kopje in front of Tafelkop. During the night General Botha arrived and General Smuts sent us word that the demonstration would not take place. In the evening of the same day a French

ex-officer came in and reported that Tafelkop was now held by but 500 lancers; that the British had retaken the waterworks of Bloemfontein and occupied them with 8,000 men; that a British column was marching east from Edenburg for the evident purpose of cutting off De Wet. Of course everybody had expected the British to make such a move, but no light could be obtained regarding details. On the same evening a report arrived that the Johannesburg fort had been blown up, but we heard next morning that it was the shell factory that suffered. The authorship of the accident was assigned to ill-disposed persons, British sympathizers, but the people were remarkably moderate in their language when speaking of the explosion.

On April 26 a Russian ex-officer came in from the southeast and reported that the position of Piet De Wet at De Wets Dorp was hopeless and that in consequence the position of his brother Christian was compromised; that the British had occupied the Bloemfontein waterworks and were holding Thaba Nchu with 7,000 men.

On April 27 we heard that Christian De Wet was safe in the gorge east of Thaba Nchu and next day General De la Rey told us that he had but 400 men with him for the defense of Brandfort and that the remaining 1,200 had been gradually withdrawn to the southeast.

On April 29 the local justice of the peace showed us a telegram from the front to the effect that the British were falling back in the direction of Bloemfontein.

On April 30 artillery fire was heard early in the morning in the direction of Os Spruit. We rode out and saw an engagement between a British force whose strength we could not ascertain, and about 1,000 Boers on a bald ridge with long gentle slopes. The British troops had come early in the morning from behind the range of hills at Karree Siding and had been marching in a northeasterly direction for the open country extending toward Winburg. Had they succeeded they would have cut the line of retreat of the Boers fighting at Thaba Nchu. General De la Rey, a tall man of stern appearance and strong features and black hair and long black beard tinged with white, was halting on horseback in the midst of the enemy's fire; at his side his 14-year-old son wearing cartridge belt and Mauser rifle, on a large horse, erect and without moving a muscle. It was a fine sight.

General De la Rey had lost another son, 15 years old, by his side at Magersfontein.

On May 1 we finally received fresh horses, much to our relief, and learned on the same day from one of Captain Theron's dispatch riders that communication with the forces to the southeast was cut and that dispatches could no longer be gotten through.

On May 2 we heard that on the 28th the Boers had been driven out of Thaba Nchu and retook their position on the 30th; that fighting was still going on and that a hill commanding an important road and defended by only about 50 men, was being assaulted by a force of 5,000 British (probably Houtneck Pass). In the evening the Irish brigade arrived, 100 strong and under the command of Colonel Blake, an American, whom I had known in 1887 at Fort Leavenworth, Kansas, when he was a first lieutenant of the Sixth United States Cavalry. He had been badly wounded in the right arm on the Tugela. He informed us that he had left Pretoria with orders to proceed to the south, turn Bloemfontein by the west and destroy the railroad south of that place, but his orders were changed to Brandfort while he was en route.

We had thus been living for over a month at and near Brandfort in unenviable suspense and hoping for something to turn up our way, when the long-looked-for British advance along the railroad finally began on May 3.

The actual situation during the past month has been as follows:

By the action near Karree Siding, 10 miles south of Brandfort, the British had secured a lodgment in a range of hills commanding toward the north the open plain extending as far as Brandfort; the conformation of the ground was such as to afford an unusually fine station for a large outpost north of Bloemfontein. Moreover, the ridge gave access toward the northeast to the open country toward Winburg. Thus the British Camp at Karree Siding not only protected Bloemfontein from the north, but was a standing menace to the communications of the Boers in the vicinity of Thaba Nchu. The strength of the British force at this point was variously reported between 4,000 and 10,000 men.

The force at Karree Siding was supported by a strong body of troops at Glen Siding, where the Modder River is spanned by the railway bridge (blown up by the Boers on March 16).

The remainder of the British troops were stationed in the more immediate vicinity of Bloemfontein or guarding the railroad to the south. Methuen was at Boshof, Mafeking was still holding out, and the Boers were pushed at Fourteen Streams.

Having effected a junction with General Olivier on the evening after the affair at Sannas Post, De Wet raided farther south and captured a British detachment of about 600 men between Reddersburg and De Wets Dorp. His successes raised the spirits of the Boers and reinforcements came to the front daily, but at the same time so many of the undisciplined Boers were tired of the war or homesick and left their commands that the reinforcements barely filled the gaps. Emboldened by his success and to carry out further operations in the spirit of the great council of war held at Kroonstad, De Wet proceeded farther south and came up with a detachment of 1,500 colonial troops under Colonel Dalgety near Wepener, which he surrounded. Here it seems General De Wet lost sight of his true mission, which should have been the destruction of the railroad south of Bloemfontein and preventing General Roberts from forming his much-needed base in that city. Perhaps De Wet was actuated by a strong desire to capture Colonel Dalgety's force, because the capture of colonial troops would have been particularly gratifying to the Boers. Whatever may have been his motives, he remained near Wepener until April 24, when, by a forced march of twenty-two hours, he made good his retreat, but not without losing some of his ammunition in a difficult crossing of the Caledon River.

To cover De Wet's movements, his brother, Piet De Wet, had taken up a position at De Wets Dorp, and Olivier at Thaba Nchu and Sannas Post. General Botha was at Os Spruit as a connecting link and as a guard against movements from Glen and Karree sidings in a northeasterly direction. Brandfort was protected on the west by General Smuts with a few hundred men and on the east by General De la Rey. General DuToit commanded the Boers at Fourteen Streams; I do not know who was in front of Methuen at Boshof. A scouting company, called dispatch riders, of 150 men, had been formed under Captain Theron, a young man, brave to a fault, bold and enterprising, who imbued his men with his own spirit. His men were distributed in small groups along the

extended front of the Boers from Wepener to Boshof. They watched the enemy's movements and sent their information either by courier or from the nearest heliograph station.

This was the general distribution of the Boer forces during the month of April; their exact strength will probably never be known; I estimated the Boer forces confronting Lord Roberts from Brandfort to Wepener at about 6,000. As the British developed great activity for the relief of Wepener and made a general movement eastward, the Boer forces gravitated more and more toward Thaba Nchu until there was no one left for the defense of Brandfort, so that toward the end of the month the attachés would alternate in mounting guard in the early morning on a hill on the outskirts of the town in order that we might not be taken by a dash of the British from Tafelkop.

The strategy developed by the Boers was as bold as it was sound. Their dispositions seriously threatened the British communications south of Bloemfontain, kept the southern part of the Free State in turmoil, flanked any advance to the north along the railroad, and kept in the hands of the Boers the resources of the eastern part of the country, which is more populous and fertile than the dry and sandy west. By remaining in this part of the state they also remained in touch with the troops guarding the Natal border at Van Reenens Pass. The commander of this last-named force was General Prinsloo, a selfish and unpatriotic man; he had once been in chief command of the Free Staters, but had been superseded by De Wet, and though appealed to by General Botha on the invasion of the Free State by the British, he steadily refused to detach any of his men to help stay the tide of invasion. He subsequently surrendered to the British, despised by the Boers and much to their relief. However, by keeping the passes into Natal closed, the army of General Buller was eliminated as a direct factor in the campaign waged in the Free State. The Boer troops in front of General Buller had steadily been diminished to reenforce those at other points, until there were but 4,000 left to defend the passes leading from Natal into the Transvaal.

Under these circumstances the task of General Roberts was clearly outlined. He must remove the menace to his communications by driving away De Wet and incidentally relieving Colonel Dalgety's force at Wepener; his numerical force

even afforded the means to cut off and capture Christian De Wet. His next task was to extend and strengthen his right so as to deprive the Boers of their flanking position at Thaba Nchu and Ladybrand. That accomplished and his base completed at Bloemfontein, he would be at liberty to sweep northward as far as the available supplies and transportation permitted.

To accomplish this task, General Brabant's division was directed against Wepener from the south—two divisions advanced from Bethanie and another division with two cavalry brigades from Bloemfontein, all marching on De Wets Dorp; and to extend further the eastward movement and endanger the line of retreat of the Boers, a force marched from Bloemfontein on Sannas Post and one from Karree Siding eastward with a view of striking somewhere a central nucleus whose defeat would at once clear the situation. On the left Methuen also advanced from Boschof, but was driven back about April 20. These various advances were at the time characterized by one of the attachés who likened General Roberts, in his attempts to get his right, left, and center started on the northward invasion, to the starter of a race who can not get his horses near enough together under the wire to shout "Go."

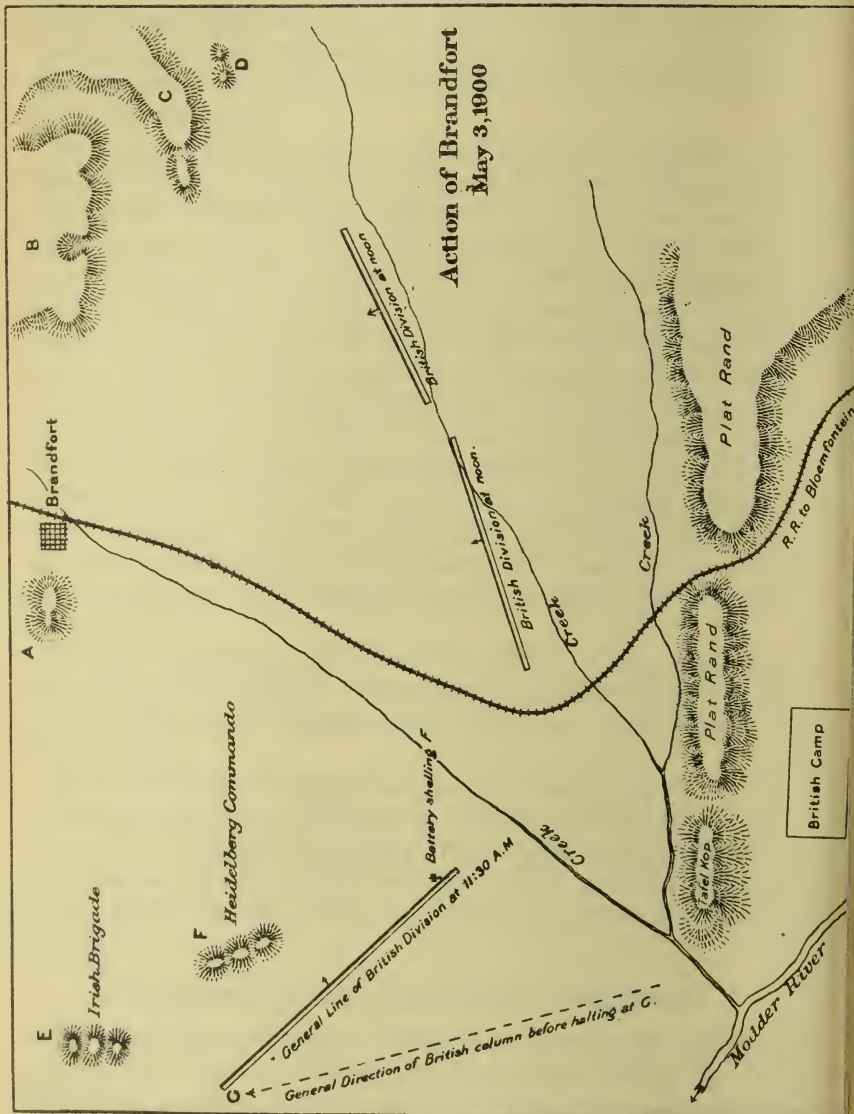
On the appearance of these formidable forces near De Wets Dorp the two De Wets gave up their positions at De Wets Dorp and Wepener and made good their retreat to Thaba Nchu.

General Roberts had now succeeded in reducing the arc of the Boer positions from its former extent of nearly 180 degrees to one of 90 degrees, extending from Thaba Nchu to Brandfort; the southeastern part of the state had been cleared of the Boers and the threat to the British communications removed.

THE RETREAT FROM BRANDFORT TO PRETORIA.

The British commander in chief lost no time in applying himself to the task of ridding his flank of the enemy, but the Boers held a strong position east of Thaba Nchu, and stoutly resisted attack. Failing to dislodge them, General Roberts changed the point of attack and broke through the Boer lines at Houtneck, north of Thaba Nchu. The Boers now fell back and the advance of the British army began. Inasmuch

Action of Brandfort May 3, 1900



as the Boers were thoroughly worn out and disheartened, and incapable of much resistance, there is little to be said about the retreat, except, perhaps, a few personal reminiscences.

At 8 a. m. on May 3 word came that the British were advancing from the Platrand, a range of hills 10 miles to the south of Brandfort, in which was located Karree Siding. As many such reports had lately been received, and all had been false, we refused to believe it until Colonel Blake assured us that it was so, and that his own scouts had seen the British columns. We then sent our baggage to the rear and ascended the kopje on the western outskirts of the town, where we had a fine view of the surrounding country. To the south and southwest an open plain stretched away for about 8 miles, bounded by the Platrand and the Modder River; to the east was a rugged range of hills about 2 miles from Brandfort and extending eastward for about 3 miles, forming a strong but entirely unoccupied position. About 3 miles to the west were three bold kopjes, and three smaller hills were located to the southwest not quite so far distant. The plain in our front was bisected by the railroad and by a creek running in a southwesterly direction toward the Modder, which it joined west of the Platrand. Colonel Blake's command of 100 Irishmen was halted at the foot of our hill, and no Boers could be seen anywhere. The morning was not very clear, but in the end we saw two British columns winding down from the Platrand and disappearing in the brush of the creek below. About 10 a. m. we saw some bodies of the British troops farther to the east on the northern slopes of the Platrand range; these troops were moving in a northeasterly direction, and the sound of guns coming from a point about 7 miles east of Brandfort indicated that a British column was engaging General De la Rey, who, we knew, had gone off in that direction with his command.

As early as 9 a. m. we saw a British column in the plain below marching in a northwesterly direction with the evident intention of getting into our right flank. As the haze grew lighter, the various parts of the column and of the advance-guard, point, support, main body, flankers, etc., were plainly visible, and there seemed to be two guns with the advance-guard at the head of the support. When the head had reached a point opposite the center between the two groups of three hills, the column halted and faced toward Brandfort.

About 10 a. m. the Heidelberg commando came around the foot of our hill at a gallop and moved southwest toward the group of the three lesser hills. It was a fine sight to see these 300 farmers stream across the plain like a pack of hounds to confront what gradually disclosed itself as a division which we estimated 8,000 strong. While the Heidelbergers were making for the hills, the tail of the British column gradually emerged from the enveloping mist, we noticed two batteries coming forward at that point, and considerable bodies of troops in rear, seemingly at a halt. How much the haze did or did not deceive us we were, of course, unable to tell. As the Heidelbergers were passing our hill, Colonel Blake received orders to follow them, and he started with his command toward the group of three bold hills to the west. Before he reached them, and almost immediately after the Heidelbergers had ensconced themselves in their position in the three lesser hills, a battery near the British right took up a position that almost enfiladed the position of the Heidelbergers, and opened an accurate shrapnel fire. We saw the reverse slopes of the three lesser hills beaten by this fire, where the horses of the Boers were standing without shelter, and we realized at once that the Heidelbergers could not stay there long. Meanwhile the British troops west of the railroad gradually deployed, the troops on their left made a forward movement against the two groups of hills, and in front of the center appeared a body of cavalry which advanced slowly and cautiously and halted on a slight swell $1\frac{1}{2}$ or 2 miles in our front, dismounted some men, and sent them to a low hill adjoining the position of the Boers, and apparently within rifle range of it. At the same time another body of mounted troops advanced along the creek toward Brandfort; their leading men were stopped by a few stragglers on the outskirts of the town and by a few Boers who dismounted in the veldt wherever they happened to be and opened fire; two or three opened fire from our hill, etc. The British, however, gained in strength, and a slight fusilade ensued. To the east of the railroad another large body of British troops also hove in sight, and we estimated that three divisions were in movement on the Brandfort position. However, beyond the Heidelbergers and the Irish Brigade and a few stragglers, there were no Boer troops present. De la Rey was engaged quite a distance to the east, and there was not a Boer gun within

5 miles of Brandfort. Toward noon we saw the Heidelbergers withdrawing from their position at a gallop, pursued by British shrapnel. So far as we could see, there was no attempt on the part of the British cavalry to molest them. Toward 1 p. m., as the British troops drew near, we galloped away to a hill 2 miles to the north, whence we watched the concentration of the British troops around Brandfort for an hour. We then proceeded to join our wagons on Vet River crossing, 20 miles to the north, slept there that night, and next morning rode into Smaldeel.

This town of about fifteen houses is of some importance as the junction point of the main line of the railroad with a branch line from Winburg, a prosperous town 18 miles to the east. Smaldeel lies on an open slope about 5 miles north of the Vet River, which flows in a deep-cut bed with steep banks. The right bank rises abruptly and commands that on the other side, thus affording a good rear-guard position. The railroad bridge spanning the river here was destroyed, the two central piers had been blown up, three spans had dropped into the river, and the south pier and span were also damaged. From the left bank the ground rises very gently for a long distance, so that in riding down to the river from the high ground at Smaldeel one has an extensive and unobstructed view to the south.

On the morning of May 5 we found General De la Rey there with about 1,000 men and 6 guns, preparing to dispute the passage of the river in a position extending for 6 miles from the railway bridge on the left to a crossing 6 miles down stream on the right, where a small commando held the drift, and where we had camped on the night of May 3. In the course of the afternoon reinforcements of one gun and 25 men arrived by rail from the north.

In the afternoon the majority of the attachés, having seen enough of retreat and rear-guard actions, left by train for Kroonstad and Pretoria. Captain Demange and myself remained, and, in the afternoon, seeing three big columns descending from the south toward the river, we again rode down to the Boer position, which we reached soon after a British battery had opened fire on the Boer center. When the Boer guns opened, four more British batteries came into action, and toward evening two heavy guns opened fire with lyddite shells on a rocky plateau in rear of the Boer center. The range of

these last guns must have been 6,000 yards or more; there was no one at the point which they bombarded. On the farther (left) bank of the river there were a few low hills through which the railroad wound; they were held by a small Boer detachment as an outpost and shelled by one of the British batteries. At dusk this part of the Boer position was evacuated, the men withdrawing to the right bank. The Boer guns did some good shooting, particularly the 75-millimeter Creusot on the right near the bridge; but their fire was dispersed, and apparently produced no effect on the British batteries. Moreover, the Creusot gun mentioned soon got out of order, which frequently happened with guns of this construction, and had to remain silent; it had been under a cross fire of shrapnel, but had suffered no loss. British troops came down a long branch of the river from the south on the right of the British line, but seemed to make no headway, and another body ascended a commanding hill rising between this creek and the river. The cannonade lasted until after dark without anything decisive happening. The command holding the lower crossing had during the day driven back the enemy's scouts and held its ground later on against a considerable force, but evacuated its position after dark. On returning to Smaldeel I found a commando in the town, and, on inquiring, found that it was the one that had been at the lower crossing; they gave no reason for their withdrawal. An immediate retreat was now necessary, and was effected during the night without disorder. The commandos kept well together on the march. One commando was stationed north of Smaldeel, which prevented single individuals from proceeding northward, and as I had preceded our party which had trouble with some spare horses, I was held there until our guide came up and identified me to the satisfaction of the field cornet. There was no flight. The Boer is somewhat phlegmatic; when he is in a position that meets his tactical requirements, he stays there and fights as long as he has ammunition; when his position develops any weakness, he quits it before he is compromised, and retreats quietly, sings, jokes, and whistles, and rides until he finds another position where he can again confront the enemy. We left Smaldeel about 8 p. m., crossed to the east side of the railroad about 6 miles north of Smaldeel and camped at 1 a. m. about 1 mile south of Welgelegen Station. It was a bitter cold night, and at 6 a. m. we

ACTION ON VET RIVER, MAY 5, 1900

British Column

British position

British position

River

Vet

force

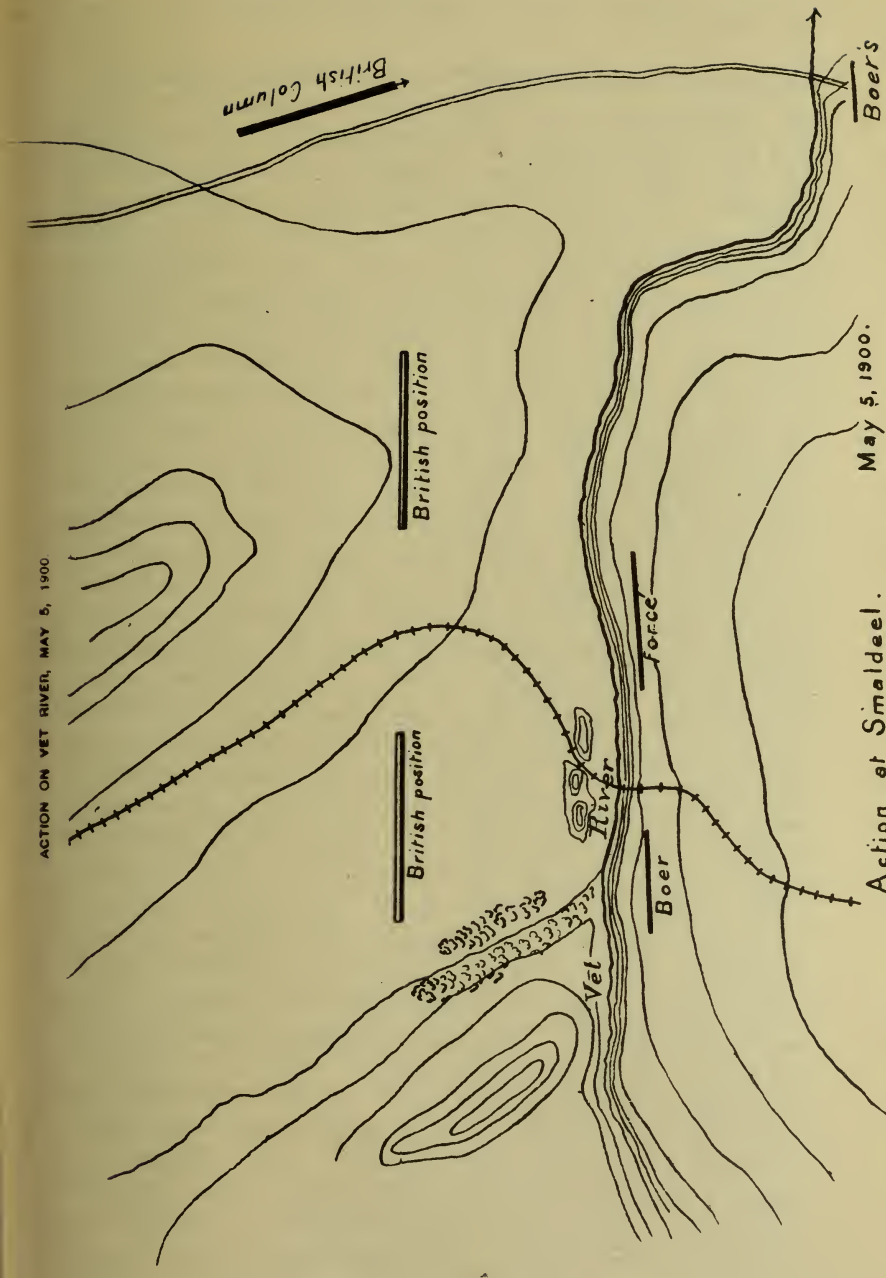
Boer

May 5, 1900.

Action at Smaldeel.

Boer's

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resumed the march to Zand River, reaching Virginia Station at 10 a. m.

At Virginia Station I left the French attaché and proceeded by rail to Kroonstad to look after our transportation and baggage, which the departure of the other attachés for Pretoria had left in sole charge of unreliable Kaffir servants. Here I found the Government making strenuous efforts to stem the further advance of the British troops; some slight reinforcements and a battery were dispatched to the Zand River, all burghers were commandeered to go to the front at once, and trenches were being dug on a range of hills called Boshrand, 3 miles south of the city. All sorts of rumors were flying through the air, and burghers physically worn out and tired of war were coming to the rear in a constant stream and would not be stopped, and though generally things were quite orderly, there was much horse stealing. Having heard from the French attaché that the Boer forces had united on Zand River and were preparing to give battle, I left Kroonstad for Zand River on the night of the 10th of May. Ten miles south of the city I met Captain Demange, who informed me that the Boers had changed their position from Zand River to one 7 miles farther north along the road from Ventersburg to Ventersburg Road Station; that the bridges at Welgelegen and Virginia had been blown up; that the passage of the British troops over Zand River had not been disputed; that on the morning of the 10th the enemy had advanced in force, and that after standing the artillery fire for three hours the Boers began to retreat, and that he was at the head of the retreating Boer column. There was nothing left but to return to Kroonstad. The Boers had lost what little cohesion their primitive organization and methods gave them, a few men, mostly foreigners, held the Boshrand until after noon on the 11th, but after that everything went irresistibly to the rear. The patriotic President of the Free State made every human effort to stem the retreat but without avail. He addressed a lot of stragglers at the railway station, the audience was listless and the cheers were barely audible. President Stein is a man of about 45, with commanding figure, long beard, and pleasing address, great strength of character, and a true patriot. Our draft animals being no longer sufficient in number to haul our heavy wagons, we turned them over to a small French corps and transferred ourselves and baggage to an ambulance train,

which during the night took us to Vereeniging; in the morning we took the train for Pretoria.

Up to Zand River we knew nothing of the forces of Christian De Wet and Louis Botha; at Smaldeel we had learned that the British were in our flank at Winburg, and that the President was with General De Wet, and we were told by someone that Botha and De Wet were hanging on to the right rear of the British. The railroad bridges at and north of Kroonstad were destroyed and Rhodeval Station was indicated to the Boers as the place of assembly for further resistance, but they had reached their limit and a condition where disciplined troops alone would have been capable of effective action. We expected the British to sweep everything before them across the Vaal and then to pause to repair the railroad and establish a new base at Kroonstad. For some distance above and below Vereeniging (I did not see any other portion of the stream) the Vaal is not suited for defense by Boer troops, the banks being of equal height and the country flat on both sides.

* * * * * * *

General Roberts evidently was determined not to allow the Boers time to rally and recuperate, for he pushed on with but little rest until he took Pretoria on June 5. As was to be expected, the Boers were incapable of resistance, General De Wet with the Free Staters remained in the northeastern part of his state, and by themselves the Transvaalers did not constitute a large force in front of the British army (other British columns were converging on Pretoria), and the Boers had but one idea, of going home for a rest. In consequence, the almost superhuman efforts of General Botha availed nothing; he could but slightly retard the British, to whom, after a few minor actions, Pretoria surrendered without resistance.

Having succeeded, after much delay, in equipping ourselves with means of transportation, the French attaché, who had just been promoted to the grade of major, and myself started on May 29 to rejoin the Boers south of Johannesburg. On reaching the railway station we learned that no more trains were going to the south, so we marched, and that evening reached the farm of Mr. Erasmus. During the day my horse fell on me, and the wagon of Major Demange became useless by the breaking of a wheel. Next morning I marched alone, with my cart, in the direction of Johannesburg, while a violent

cannonade was going on to the southeast, lasting about an hour, but on reaching Jokeskei River I met a retreating column and learned that by this time the British were probably in Johannesburg, and that a British column had broken through along the railroad, and General Smuts told me that he had orders to hasten to the rear and head off that column. I then marched back to the Erasmus farm and was joined by Major Demange, who meanwhile had obtained a cart from Pretoria, and in company with Colonel Blake we rode back to Six Mile Creek, where we slept by the roadside while a constant stream of Boers was passing by all night.

Next morning the Boers continued the march to Pretoria, leaving a rear guard of about 200 men with 6 guns, among them a howitzer, in position on the right bank of Six Mile Creek (or Hennops River). Major Demange and I remained to see the rear-guard action. General De la Rey had arrived early in the morning, and at 9.30 a. m. took position near us on an elevation affording a good view of the ground to the south. As nothing was to be seen of the enemy we rode back to Pretoria toward noon, passing on the way an Armstrong gun en route for Six Mile Creek. * * * It became known that Pretoria would not be defended, and upon the authority of local officials, as well as on their own, the Boers proceeded to carry off as much forage and as many horses as they could lay their hands on.

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As we could find no one in authority who could give us information, and as the troops were evidently scattered in every direction without any nucleus that we might join, we decided to leave our baggage in the hands of our consuls and follow the Government to Machadodorp, and from there regain touch with the troops after they had reassembled. Before our departure by train on June 1 we were treated to the usual crop of rumors; first of all, the porter informed us that Pretoria would be defended, then some one else brought the news that General Methuen had been captured in the telegraph office at Elandsfontein; next, General French was mortally wounded, and lastly, General Lemmer was bombarding Johannesburg.

There is little to be said about the retreat from Brandfort to Pretoria. The Boers were demoralized and absolutely worn out. Patriotism was still there, but the enthusiasm

had burnt out, and the Boers were not held together by the cement of discipline which makes a formidable unit of so many harmless individuals and which holds men to their work in adversity. That a number of them would again come to the front was to be expected. There were many who remained constantly in the field and set a noble example to the rest, but owing to lack of proper organization and direction their efforts availed nothing. It would not do to underrate the Boers on account of what weaknesses they may have displayed on this long retreat. Considering that they were not trained soldiers, or soldiers in any sense, for that matter, I doubt whether any body of men in similar circumstances and with similar primitive means could have accomplished what the Boers did, or would have fought as the Boers did a few days later at Donkerhoek on June 10 and 11.

After quitting the Modder River the British army swept onward without stop until it settled in Johannesburg and Pretoria; contrary to our expectations, for we all thought that the wave of invasion would come to a temporary stop on the Vaal. The rapid and sustained movement of the British troops reflects credit on the staying powers of the infantry, and still more on the department of supply and transportation. In view of the sparse settlement of the country and its exhausted condition, in view of the interminable distances to be covered, and on account of the destruction of the railway bridges, the maintenance of a large force in rapid movement was a formidable problem, the successful solution of which indicates a well-organized staff and a strong and skilled hand at the helm.

It might be said that by his rush to Pretoria the British commander neglected and left on his right flank the forces of De Wet, which, by a more deliberate advance from Kroonstad, he might have forced over the Vaal, thus leaving the entire Free State in his undisputed possession; also that he might have driven the Boers from Van Reenens Pass and established direct communication with General Buller. On account of the long delay of General Buller in advancing from Ladysmith it is doubtful whether General Roberts set any store at that time on effective cooperation on the part of that general. Subsequent events certainly make it appear desirable that De Wet should have been forced out of the Free State, but the same events also raise doubts whether De Wet would

have consented. It is certain, however, that the British commander had scattered and demoralized the enemy, and had landed his army in the capital in the midst of the enemy's country. The most serious loss the Boers suffered was that of their ammunition factories.

Pretoria had been advertised for some time as a fortress of immense strength, provisioned for several years. As a matter of fact, the four forts actually built were mere shells, incapable of withstanding modern artillery; their armament and equipment were defective or nonexistent (there were but eight heavy guns in the country, four 155-millimeter Creusots and four 120-millimeter Krupp howitzers); the guns could not be spared from the field. To defend Pretoria properly would have required every available man in the Transvaal and more guns, ammunition, and provisions than were on hand. From the military point of view, a fortress is but a makeshift to detain part of the enemy and to benefit in this way a field army by the diminution of the opponent's field forces. In this case there would have been no field force to be benefited, except that of the enemy, who would have had the satisfaction of gathering in the entire strength of his opponent with the fall of the fortress. That the Boers did not attempt its defense was, therefore, most natural.

During my stay in Pretoria, during the second half of May, I requested permission to visit the forts, but was refused on the ground that there was nothing to see there; the fact probably was that the forts were being evacuated and that the Government did not wish it to be known. Between May 22 and 25 I paid a visit to Volksrust and Laings Nek on the Natal border. This mountain gateway is guarded on the west by Majuba Hill, rising in terraces to an estimated elevation of 7,000 feet, and on the east by Pogwani Hill, rising in abrupt slopes to the same elevation. From Majuba a low shoulder runs out eastward, which is known as Laings Nek; it presents gentle slopes toward the north and a long steep gradient toward the south. On the crest of Laings Nek the Boers, or rather their Kaffirs, had dug a trench extending from the main body of Majuba as far as the inaccessible gorge which intervenes between Laings Nek and Pogwani; the trench was about 3 feet deep and 2 feet wide, badly constructed and badly traced; in some places the dirt had been thrown to the front, in others to the rear; in many places the ditch followed the

natural crest to the neglect of the military crest, and thus commanded but 25 yards of ground to the front instead of all the ground within rifle range. During my entire stay with the Boer armies I never saw the well-traced, beautiful trenches which honeycombed the island of Luzon. There were about 4,000 Boers available for the defense of the defiles leading from Natal into the Transvaal, spread over a front of about 25 miles. Gen. Lucas Meyer, the commander, had just been ordered to Pretoria as military governor. One howitzer and two Maxims were all the guns I saw at Laings Nek. On May 24 I ascended Pogwani Hill, which, on account of the deep and inaccessible gorge mentioned above, had to be reached from Volksrust by a circuitous route of about 15 miles. Starting at 7 a. m., I reached the top at noon, and found there a 155-millimeter Creusot entrenched and commanding Laings Nek and its approaches from the south. An artillery corporal with 9 men was in charge, and there was a guard of some fifty burghers. Some of the slopes of this mountain are exceedingly steep, and it seemed almost impossible to drag a gun weighing 12,000 pounds to the top, but I was told that 24 oxen and 200 men had taken it from Volksrust and planted it on the summit of Pogwani between 3 a. m. and 4 p. m., i. e., in thirteen hours. The corporal was not very sanguine about a successful removal of the gun in case of a sudden retreat of the Boers from Laings Nek.

In a proclamation issued from Bloemfontein, General Roberts called on the burghers to lay down their arms and promised them security of person and property upon taking an oath of neutrality. On March 19 President Stein issued a counter-proclamation, reminding the burghers of their duty under the laws of their country, and of the penalties attached to disobedience. On May 24, General Roberts issued a proclamation annexing the Free State to the British dominions, to which President Stein replied by a counter-proclamation from Reitz, dated June 11, declaring the Free State still free and independent.

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In company with Mr. Adelbert Hay, United States consul at Pretoria, I visited, on May 20, the camp at Waterval, 14 miles north of Pretoria, where the captured British soldiers were kept. The camp was on an open slope, guarded by about 300 men unfit for field service (young boys, old men, and

convalescents), surrounded by the wires of an electric-light plant and by a strong wire fence of five rows of poles with the wire strongly interlaced and interwoven everywhere. The central row of poles was about 7 feet high and carried eight wires. On the outside of the inclosure was a small store where the soldiers could buy some necessaries and luxuries at very high prices.

The grounds were divided into the hospital and administration section, the exercise grounds, and the camp proper. In the hospital and administration grounds there was a surgical ward with dispensary attached, a ward for severe cases, and a convalescent ward; they were built of corrugated iron and canvas, except that the surgical ward was more substantially built and ceiled and floored. The beds consisted of canvas cots with mattress, pillow, linen, and blankets. There were two surgeons on duty, and the sick report amounted to 5 per cent. The administration was carried on through Lieutenant Nesbitt, who had been captured with the armored train at Kraaipan, and who was at the prison camp at his own election in order to be near his young son, who had fallen into the hands of the Boers with his father. His staff consisted of the senior noncommissioned officers from each regiment represented in the camp. The British soldiers did their own cooking, butchering, and laundry work, as well as most of the necessary labor in bringing subsistence supplies from the storehouse to the camp. The exercise ground covered 50 acres; there the men could stay during the day, play games, etc., and at one end there was a bathing tank. The camp proper also covered 50 acres and contained sheds and tents under which the prisoners slept. Every man was furnished with material from which to construct a bunk. At night the entire grounds were brilliantly lighted by electricity.

BRONKHORST SPRUIT.

On arriving at Machadodorp we found the Government installed there in railway carriages, and its members as hopeful as ever; there were several ammunition trains standing on the tracks, their contents having been removed from the depots of Pretoria, and some cars said to contain about £2,500,000 in bar gold. All these cars were guarded by the remnants of the Pretoria police. The Government had been unable to mint the gold because the dies, like some

other things—as, for instance, a steel bridge to be laid in Pretoria, the uniforms of the State Artillery, a monument of President Kruger to be erected on the public square of the capital, etc.—had not reached their destination on account of the war. We heard that the dies in question had been abstracted by a British agent from the messenger in charge aboard steamer. We also heard that the Free State continued to offer resistance to the invaders and that President Stein was moving in the direction of Bloemfontein, destroying the railroad. The old artillery material of the Government had also been removed from the Pretoria arsenal to Machadodorp, all sorts of antiquated guns could be seen, and among other things there were there five cavalry Maxim carriages taken from Jameson's force, a number of Krupp store wagons, and Krupp, Creusot, and other gun carriages. On the morning of June 5 a train load of British prisoners passed through en route for Nooitgedacht, where a new camp was to be prepared for them. It seems that the Government had failed to take timely steps for the removal of the British prisoners; perhaps it was not particularly anxious to do so because they were a burden and a heavy tax on the now limited resources of the Boers; perhaps it was simply the result of shiftlessness, itself the consequence of the absence of a highly developed military organization.

It was not long before some of the European ex-officers began to arrive at Machadodorp as well as fragments of the foreign corps; they all agreed that the *débandade* was complete and that the war was over. The Government, on the other hand, told us that the Boers were still defending the passes leading from Natal into the Transvaal, and that Botha would bar a British advance from Pretoria eastward. News also came of a victory of General De Wet near Biddulph Mountain in the Free State.

It was quite amusing to find how many men came to the state secretary, Mr. Reitz, each telling him that he had been the last to leave Pretoria, etc., and finishing his recital with a request for a bottle of liquor. The Government everywhere in the vicinity of troops forbade the sale of liquor and the same could not be obtained without a surgeon's certificate. Mr. Reitz was highly appreciative of the services rendered by these foreigners; he is naturally a kind man, and they usually got what they wanted.

Having learned that General Botha was in position near Donkerhoek, some 15 miles east of Pretoria, Major Demange and myself decided to join him. Major Demange left accordingly, on the 7th of June, and I followed on the 11th, having been detained to undergo medical treatment and to await supplies from Lourenço Marquez. Before my departure I learned of General De Wet's successful descent on Roodewal Station, where he killed, wounded, or captured about 600 men and destroyed a large amount of supplies including several thousand lyddite shells and a large stock of winter clothing. It seems that the railroad had been repaired as far as Kroonstad by May 30 and that these supplies had reached the rail head at Roodewal and were waiting to be forwarded as soon as the railway should be repaired to Pretoria. This piece of news greatly inspired the burghers.

On June 11 I left by train for Van der Merwe Station, but on reaching Bronkhorst Spruit at 9 p. m. I learned that the train was not going farther because the burghers were falling back and a bridge in front was to be blown up. In passing through Middelburg at 3 p. m. I had seen there two Long Toms on trucks standing on the track and some smaller artillery, among them a Krupp. With me was Captain Ram, one of the Dutch attachés, whom I had invited to join me, as he was without wheeled transportation of his own. During the night I slept on the truck under my cart; it was a bitter cold night, the small station was choked with rolling stock which was being switched around all night, with the result that several cars were upset and smashed. With us was also Mr. Neethling, a former landdorst, and now "krijgskommissaries," whom, together with Commandant Van der Post, we had met at Machadodorp. Commandant Van der Post told a remarkable story of how, with a few men, he was hiding in the mountains near Fauresmith for more than fifty days, often within sight of his house, hunted by the British on information furnished by the Kaffirs; how he saw his friends and neighbors marched off by the British, and how he himself had been offered favorable terms of surrender by the British general commanding the district, to which he replied that he would not surrender and that he recommended his family to the British general as an officer and gentleman; that his family was well treated; that finally with his small band he marched north, entered Petrusburg,

broke into the town hall and destroyed the surrendered Boer arms, arrested a traitor, made his way to the north of the Vaal through the British troops, and safely delivered his prisoner to the Transvaal authorities at Pretoria.

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On the morning of the 12th the retreating Boer columns began to arrive at Bronkhorst Spruit, and Major Demange informed us that a considerable action had taken place June 10 and 11 west of Van der Merwe Station, that 3,000 Boers were holding a position 20 miles in length, that there was much bombardment by lyddite, that the Boers stood the artillery fire well and fought with determination, and that the position was evacuated after the second day's fighting because the Ermelo commando had fallen back from its position, leaving the center of the line open to the British. In this part of the country, to the east of Donkerhoek, there is no lack of rocky hills and ridges, but they all ran parallel to the railroad and to the Boer line of retreat, and it was difficult for them to find a position where they could oppose the largely superior enemy on a large front with any hope of success. All therefore fell back that day as far as Wilge River Station and next day to Balmoral Station, to the west of which we were informed a position was to be taken up. On June 15 we rode out to see the destruction of the bridge over the Wilge River, about 1 mile east of the station of that name.

We remained at Balmoral near General Botha's headquarters until near the latter part of June. On the 27th of the month we moved forward to Bronkhorst Spruit and proceeded on the 28th to Elands Rivier Station, near which a council of war was held in which many generals and commandants participated. General De la Rey had come in from his position north of Pretoria; General Erasmus, of the Pretoria commando, was also there. About noon some British guns on a ridge about 3 miles distant opened fire on some Boer patrols and succeeded in killing one man. Arrangements had been completed for a general forward movement next day, when a telegram arrived from Machadodorp that a British column was advancing on Bethal. As such a movement seriously threatened the left rear of General Botha, the movement on the morrow was countermanded, the generals retired to their commands and we left Bronkhorst Spruit that night with General Ben Villjoen and withdrew to Balmoral, only to learn

on arrival that the British column had turned back from Bethal. We remained near Balmoral until July 5, when we again moved forward to Bronkhorst Spruit, this time to remain until July 23, during which time we frequently rode out with General Botha, watching the movements of British columns and patrols.

So far as we could learn the Boers formed a thin cordon around Pretoria, De la Rey commanding the forces to the north of Pretoria, and Botha to the east, each having about 3,000 men. Other forces were farther to the west, but we could gain no clear idea of their location or doings. Gen. Christian Botha commanded a force of several thousand men in the southeastern part of the state. No events of importance took place during this time in our front. On July 7 a British column, advancing southeastward from the British position east of Pretoria, was driven back at Olifantsfontein; it was reported by the Boers to be 4,000 strong, with 4 guns and 1 naval gun; the Boers lost 1 killed and 12 wounded. On July 10 and 11 the British retaliated by driving Botha's right and left back some distance. On July 13 word came that De la Rey had taken the garrison at Mozilikats Nek; as it was expected that the British would try to punish him for the bold stroke, it was decided to make a demonstration in his favor, and on the 16th about 900 Boers attacked the British advanced posts along the line; they fought with spirit and lost 5 killed and 15 wounded and took some British officers and men prisoners. All wanted to continue the advance on the morrow, but his object having been attained, Botha recalled them. On July 20 a number of women and children, expelled by the British from Pretoria, arrived within the Boer lines, and next day the British advanced on Botha's right and left, compelling a hurried retreat to Middelburg on the 24th and 25th. Being hampered by the removal of the women and children, Botha had been slow in falling back and was seriously threatened when he did so. The roads were heavy with sand, a cold wind was blowing from the east, enveloping everything in clouds of sand and dust, and we reached Middelburg at dusk on the 25th, where the attachés had the unexpected pleasure of sleeping under a roof and in a bed, while a furious rain storm was raging outside the greater part of the night.

After the long march of 300 miles from Bloemfontein to Pretoria it was to be expected that the British army would

pause to rest and refit. A new base had to be formed at Pretoria before hostilities could be carried further. Draft and saddle animals seemed to have suffered severely, and the roads along the line of the British advance were reported strewn with dead animals. General De Wet with his Free Staters had remained south of the Vaal and, realizing that his greatest strength lay in raiding, and, properly gauging the importance of his position on the flank of a long line of communications, he made every effort to prevent the formation of a base in Pretoria by breaking up the railroad, interfering with convoys, etc., and drawing down on him a considerable portion of the enemy's army. As, with the exception of the affair at Roodewal Station on June 7, we received but rumors of his doings, and as his exploits are sufficiently known from the British official telegrams, I shall not attempt to describe them here. General De la Rey on the north also made his presence known by his descent on the garrison of Mozilikats Nek, 20 miles west of Pretoria. It became gradually known that the British army was suffering severely with enteric fever and left a number of sick in every place it came to.

While the British were keeping comparatively quiet in Pretoria after forcing the Boers back to Bronkhorst Spruit, General Botha's position was most unpleasant. In his front was a powerful army, and in his rear the Government at Machadodorp and the Delagoa railway, the only avenue of communication with the outer world. How sensitive he was of protecting the Government and the railroad is shown by the promptness with which he abandoned the forward movement planned for the 29th of June and hurried back with his men as far as Balmoral when a British advance on Bethal was reported. In his left rear another strong force had gradually worked its way into the Transvaal about the time he himself was driven from the Donkerhoek position, June 11. His brother, Christian Botha, with several thousand men, was in the southeastern part of the state. The commandant general decided not to oppose this new force in front, but to hang on to its right flank, break its communications and interpose between it and the Delagoa railway. In his situation it was impossible to start out on bold raids as did De Wet; Botha was tied to the spot and had too few men to send out on distant enterprises. He did, however, gradually rearrange the

forces so that each commando was fighting near its home; thus the large Middelburg commando was detached from the forces in the southeast and brought to Bronkhorst Spruit, while those of Heidelberg, Bethal, Ermelo, and Carolina were detached to operate against Buller's troops. We never heard anything of Buller's army, except here and there, and that the Boers had succeeded in destroying the railway; I am therefore unable to furnish authentic information on Buller's advance in the Transvaal. The main fact is that, for some reason or other, his forces, so far as we knew, remained inactive and did not become an active threat to Gen. Louis Botha until the second half of August, and that during this period of inactivity they seemed to serve the sole purpose of cutting the Free State from the Transvaal along the eastern portion of the frontier.

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All realized that there was little chance of withstanding the superior forces of the enemy in the section of the country where we then were, because the topography favors defense against an army coming from the south, not from the east or west, and the retreat was merely a question of time. The Boers favored a defense of the northeastern section of the state, which is mountainous and much broken, and the subject was much discussed by them. Whether the Government and the military commanders ever seriously entertained the subject I was unable to tell. In the end I learned that beyond sending some provisions there, practically nothing was done to organize the districts in question in a thorough manner for a protracted defense. General Botha and his lieutenants had also realized the limitations of the usefulness of his burgher forces. However willing and patriotic the undisciplined burghers might be, they had their weak hours when they felt tired of the war, were overcome by homesickness and did go home, in strong contrast to the State Artillery and police, composed of men who had been trained and disciplined in barracks. These men when ordered to hold a position would hold it, whereas the burgher, when the notion struck him, would not hesitate to quit the outpost and fall back, compelling the general and his immediate followers to do outpost duty that night, as happened several times. Or as at Dalmanutha, where many of the Middelburgers on outpost facing in the direction of their homes, would simply ride off to the west

and surrender to the British in order to get home. More than once General Botha and others agreed in conversation that the only force fit to make war with was one composed of men regularly trained and disciplined by barrack life, and regularly paid.

DALMANUTHA.

On the morning of July 26 Captain Schteglhoff, of the Russian engineers, and myself were the only attachés with the Boers at Middelburg, the remaining attachés having proceeded by rail to Machadodorp a few days before the retreat. Pursuant to General Botha's directions I loaded my transportation on the cars of one of the last trains and reached Machadodorp at 7 p. m. President Kruger and the cabinet had gone to Waterval Onder, where there were better accommodations and a milder climate. State Secretary Reitz, however, had remained at Machadodorp and very kindly shared his railway carriage with us. The Government was as hopeful and determined as ever, and the defense of the Lydenburg district was one of the main topics of conversation, though, as I soon learned, practically nothing had been done to prepare for that emergency. Nor was that country as inaccessible as one might believe from an inspection of the map.

The natural boundaries of the district to be defended were the Olifants River on the west and north, the Botha Range on the south, and the Drachensberge on the east. In the western half of this section, north of the Botha Range, lies the "Boshvelt," a rolling country with semitropical climate, trees, and good pasture, and which I believe at this time was a general place of refuge for all Boers who were tired of the war and did not wish to surrender. All the rest of the district consists of high, broken mountains. The chief town, Lydenburg, may be reached by several roads. One of these roads starts from Middleburg northeastward, and, dividing, sends one branch across the Botha Range to Lydenburg via Rossenekal; the other branch ascends to the headwaters of the Crocodile River at Dull Stream and then turns north to Lydenburg. The third road is the direct road from Carolina to Lydenburg and is joined at the Crocodile River by the Carolina-Machadodorp-Lydenburg road; these two roads connect with the road from Barberton. The Botha Range was reported inaccessible except in a few places, and guarded by a small commando. The main position now taken up by the Boers

was facing west on a broad ridge and extending about 30 miles from Dull Stream on the north to the Komati River on the south. At Dull Stream a big kopje "Groot Suikerboshkop," guarded the second road from Middleburg, and here one of the 6-inch guns was mounted. From this kopje the position ran almost directly south; on the highest portion of the ridge marking the position is the little village of Belfast at an elevation of 6,557 feet, and here the Delagoa railroad crosses the ridge, or rather broken plateau, and passes by means of a short, narrow col to a broad swell, which runs east and west and on which lie Dalmanutha and Machadodorp. The main ridges north and south of the railway converge toward Machadodorp, and viewed from the Boer position, the inclosed open country formed an open, rolling piece of ground of triangular outline, Waterval Boven being at the apex, with the Boer position as the opposite side of the triangle. On the southern extremity of the position a 6-inch gun commanded the valley of the Komati River, and a third Long Tom was posted on Witrand, a commanding ridge south of Groot Suikerboshkop and inside the Boer line. In the ensuing actions this gun was found to be too distant to be of use and it was moved to a position closer in rear of the main position. The fourth 6-inch gun was on a truck, and had, up to this time, formed the Boer rear guard on the railroad; it was now taken off and posted to command the approaches from Carolina, more particularly the bridge over the Komati; when it turned out that the British troops were not advancing in force by that road, the Long Tom was withdrawn and transferred to a position on the ridge overlooking the railway col from the east. The lighter pieces were distributed along the position according to the custom of giving each commando at least one gun if possible. One 75-millimeter Creusot was posted overlooking the col above mentioned, and 1,500 yards to the south a 75-millimeter Krupp was held in readiness. By this time ammunition, particularly for the 75-millimeter Creusot guns, had become very scarce. For the defense of this extensive position there were but about 4,000 men available. The terrain was such that in case of a retreat the heavy gun on the left would have to cover the first 3 miles under the enemy's fire.

If the enemy now turned the Boer left, he would push them to the north into the mountains of the Lydenburg district,

where everyone assumed they would make a protracted and effective resistance, and though the Boers might lose the railway as far as Machadodorp or Waterval Boven, they would still have a grip on it farther east at Nelspruit and be able to maintain communication with Barberton by rail via Kaapmuiden as long as Barberton was not taken by a British advance from Carolina. So far as any one could then tell, to turn the Boer left was the least decisive maneuver, there was a vast territory at their disposal in the northeast of the state whence it would be hard to drive them or prevent them from cooperating with their forces to the north of Pretoria.

On the other hand, if the British forces succeeded in turning the enemy's right, the Boers were in danger of being cut off from the north altogether and being driven southward toward the Barberton district and within very narrow confines as compared with the northern district, and I was looking forward to a strong effort on the part of the British to anticipate the Boers at Lydenburg and thus to cut them off effectively from the north. As I did not see the terrain in question myself, I do not know, of course, how far my expectation was justifiable.

A successful frontal attack on the position would merely have the result of swinging the Boer left to the rear and leaving the mountain defiles in their hands. If the British succeeded in breaking through the center the result would be the same, with this addition, that the Boer left might be cut off and could not rejoin Botha except by a long, circuitous route over horrible roads and inhospitable mountains, and that the Boers in the southeastern part of the state would be completely isolated.

The Boers had taken position mostly on the ragged edges and spurs of the ridge or plateau marking the general line; there were plenty of bowlders offering perfect shelter, and the camps were on the reverse slopes. At this time horses were getting scarce, horseshoes were obtained by collecting those of dead horses and gathering up what could be found in the scrap heaps of blacksmiths' shops, horseshoe nails were almost unobtainable, and there were about 500 dismounted men. The swift retreat from Bronkhorstspruit and the raw weather had killed many horses. Wagon transportation could not be replaced if lost. Articles of leather were unobtainable; of clothing and food there still was a supply, with the exception

of footgear. The ranks of the Boers also had been thinned by the retreat and was being thinned nightly by burghers who went home or to the boshvelt, but the remnant braced itself for a strenuous defense of the position east of Dalmanutha.

After the Boers had rallied somewhat from their retreat, we joined General Botha on August 5 and camped near his headquarters, 6 miles west of Machadodorp. At this time General Fourie was near Carolina with the Heidelberg, Bethel, and Carolina commandos; General Villjoen commanded the troops in the main position (some foreigners, the Krugersdorp and Middelburg commandos, Johannesburg police, and various Johannesburg commandos). General Smuts, with the Ermelo and Standerton commandos, was somewhere to the south, exact whereabouts unknown; General Osthuisen was near Rustenburg; Grobler and De la Rey north of Pretoria; Erasmus northeast of Pretoria, and nothing was known of the troops in the southeastern part of the state. There was no regular communication between these widely separated forces, except at long intervals by courier; but we heard rumors that most of these troops, particularly those in the Free State, were most active. There was the usual crop of impossible rumors; but finally we learned definitely that General Buller's army was at last advancing toward the Delagoa railway, though anything like detailed information of his operations could not be obtained. In the end we learned that on reaching Carolina General Buller had swerved from the direct road to Machadodorp and marched instead to Wonderfontein, where he effected a junction with General Roberts's forces.

Up to the battle of Dalmanutha nothing of much consequence happened to break the monotony of camp life, and about the only event to be noted is the expulsion of a further lot of women and children from the British lines.

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On August 24 the British army began to feel its way forward and occupied Belfast, and on that and on the following day its artillery shelled the position of the Boers, who were keeping quiet and, being unable to find cover on a ridge north of the village of Belfast, on which there stands a monument, abandoned it to the British. The British artillery, on the other hand, also seemed dissatisfied with this ridge, for it appeared, fired a few rounds, disappeared, reappeared and withdrew, until at last it settled down to work near Belfast.

Southeast of that village there was a high swell on which there were some heavy guns firing lyddite.

On the 26th the right and left of the Boers were attacked; the artillery opened fire at 2.30 p. m., and at 4 p. m. the infantry fire began. The action on the right lasted until 5.40 p. m., when the fire suddenly ceased ten minutes after sunset. The firing had been quite heavy, but remained stationary. Later in the evening a report came that the Middelburg commando, which was on the right, had given way and that British artillery was marching northward. It turned out afterward that the Middelburgers had fallen back to a more favorable position. A report also came in from the left to the effect that the burghers had been heavily engaged and hard pressed, but had managed to hold their ground.

At this time 73 men of the Johannesburg police held Bergendal, a farm on the edge of the plateau and covering the railroad col; a portion of the men with one Maxim-Nordenfelt were at the farm itself, where a rocky ledge formed a convenient position; the remainder were on a little knoll about 500 yards east of the farm house and immediately commanding the col; small bowlders were in abundance there and the men had prepared small trenches accommodating four or six men each. To the south and east the ground was quite open for several thousand yards and consisted of a long, broad, shallow dip of the ground completely commanded by the Boer position. The nearest support to the left (south) of the police was a commando of 109 dismounted foreigners under Commandant Krieger, nearly 2 miles distant, and farther to the south the commando of Commandant Gravett was distributed in detachments along the plateau. To the right of the police at Bergendal was a small commando of foreigners, perhaps 25, who were attached to the Krugersdorp commando, which was posted on their right; farther to the north came the Johannesburg commando, under Pinaar, and then the Middelburgers; the Lydenburgers were on the extreme right at Dull Stream. The position of the Krugersdorpers was opposite Belfast. Owing to the great extent of the position it was naturally weakly held everywhere; the center at Bergendal was somewhat isolated and should have been better supported, as the conformation of the ground was such that the foreigners and Krugersdorpers on the right could not materially assist the defenders of Bergendal.

Early on the morning of the 27th I rode out to the right to find out how matters stood, and found that the British had made no headway in the attack of the day before and that the Boers had but three men slightly wounded. I then turned south and ascended the railroad col, on the ridge in rear of which a Long Tom had arrived; a pit had been dug for it on the crest, but on second thought the gun was taken about 500 yards to the rear of the crest, whence it used indirect fire. The Long Tom on Witrand had also been moved closer up to the main position, and both were attacked with lyddite as soon as they opened fire. The Long Tom on Witrand was firing while I rode up to the railroad col, and the lyddite shells from the enemy fell at first far short and plunged into the narrow valley in front of the Witrand where there was no one; after the British gunners found the range they placed their shells fairly close to the mark, but failed to do any damage and no shell came within 150 yards of the Long Tom back of our position at the railway col. For two days previous an assembly of troops could be observed on a yellow slope southeast of Belfast and opposite the center of the position, but the distance was so great that it was impossible to tell whether they were mounted troops, artillery, or wagon trains or all three.

At 10 a. m. on the 27th the British artillery opened fire on the Bergendal position from the east and southeast, and lyddite and shrapnel from heavy guns came from the ridge southeast of Belfast. We were on the ridge overlooking the railway col immediately in rear of the Johannesburg police. Before us was spread an immense landscape, lighted up by the brightest of South African suns, and we were witnessing the spectacle of modern war with smokeless powder; there was a tremendous roar of artillery and bursting of shells, and not a human being was in sight anywhere. Exactly at noon the infantry fire opened and continued without interruption, and the artillery fire grew heavier. The 73 men of the Johannesburg police stuck manfully to their post; they were under the concentrated fire of perhaps thirty guns, light and heavy, shrapnel and lyddite, to which is to be added the fire of two infantry regiments with several small Maxims. A Boer riding up to us said: "So fights General Buller." As the police failed to give way under this fire there appeared, at 1.55 p. m., some British artillery in their

right flank and opened fire at a range of between 2,000 and 3,000 yards. On account of the color of the background it was impossible to tell whether it was one battery or more. The Long Tom in our rear opened fire on this artillery, but was very slow about it. The British infantry was drawing near, as on account of the constant stream of artillery and small-arm projectiles the fire action of the police was much restricted, and nearly one-half of the men had been killed or wounded; their Maxim-Nordenfelt had neither ammunition nor horses left; one of the two officers was killed and the commanding officer wounded. He now gave orders for those still able to do so to retire. At 2.10 p. m. the remnants of the police appeared in the open, a few on horseback, most of them on foot, to seek safety in flight. But to reach a place of safety they had to cross a space of 1,000 yards of open ground. There was a slight pause in the artillery fire, and then such a hurricane of shrapnel and lyddite swept that open ground that sometimes it was completely hidden from view by the smoke and dust thrown up by the bursting projectiles. It seemed impossible that any human being should escape from this fire, yet the burghers emerged unscathed, but one of them being hit on this retreat, so far as I could learn by subsequent inquiry among the survivors. At 2.15 a. m. a noncommissioned officer of artillery, with a bullet through his right thigh rode up to Captain Pretorius, of the Transvaal artillery, and reported the loss of the gun, and stated that about half of the police had been killed or wounded.

The 73 men had held their ground unsupported for more than four hours in the face of heavy odds and of a tremendous artillery fire; they received no assistance worth speaking of from their own artillery; they had one Maxim-Nordenfelt with them, the Long Tom back of the railway col could not fire until the last moment, because its fire was masked by an intervening hill, and when the British artillery appeared in the right flank of the police that gun had fired but about three shots before the retreat began. The 75-millimeter Creusot which had been on the ridge until the day before, as well as the 75-millimeter Krupp, 1,500 yards to the south, had both disappeared, having probably been drawn away to the left on the preceding afternoon. The Long Tom on the extreme left attempted to assist the police, but its shells fell short of the mark. The gun of the Krugersdorpers attempted also to

render assistance, but was speedily silenced or out of ammunition. In consequence, the British artillery could fire as unconcernedly as on the target range. General Buller reports in his telegram of August 28: "It was a very long, trying day for the artillery, who did right well." He also reports in the same telegram that two infantry regiments, after a heavy bombardment, took the position "with great dash."

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The consequences of the defeat were severe. The men south of the Komati River were cut off altogether, not only by the enemy but by the inaccessible gorge of Elands Spruit. The entire position had to be evacuated, a number of wagons were lost, and the heavy gun on the left, as well as the one near the col, had a narrow escape. Toward evening we marched into Machadodorp, expecting every moment to see British guns appear on the ridge in our rear to convert the retreat into a route. General Botha directed the attachés to proceed to Waterval Onder by train, but as there were no trucks to take our transportation we remained the night in Machadodorp and marched next morning with the retreating column to Helvetia, 7 miles north of Machadodorp, arriving there at 8.30 a. m., and expecting to remain with the troops. General Botha, however, appeared toward noon and directed us to proceed to Waterval Onder, which I reached toward evening by a very steep road. I left the Helvetia plateau as the British shells were coming up, and it is the last action I saw.

The Government had removed from Waterval Onder to Nelspruit, but State Secretary Reitz and Gen. Lucas Meyer were still there and in the evening Generals Botha and Villjoen came in. The last two departed again at 3 a. m. for the plateau above, and at noon General Villjoen returned and ordered a general retreat down the valley. At Helvetia the Boers divided, the Krugersdorp and Johannesburg commands going down the valley along the railroad under Villjoen, the remainder north to Lydenburg under Botha. A few miles from Waterval Onder the axle of my cart broke and I should have lost my complete outfit but for the kindness of the doctor of the Krugersdorp ambulance, who loaded my things on his wagon and patched up my cart so that it could go along empty. We camped that night, August 29, outside Nooitgedacht, and entered the place next morning soon after

daybreak. At this point the Boers had established a prison camp and there were about 2,000 British prisoners here. The place is shut in on all sides by high hills; the day was cloudy and dark, and it was gloomy down in this mountain gorge. General Villjoen had received orders from his Government to release the enlisted men and to send the officers to Barberton. The British prisoners were overjoyed when they learned that they were to be released and sent to their own lines, some of them having been in captivity almost since the beginning of the war. In order that they might not be fired on by their own men and in order to call an ambulance for the sick prisoners, General Villjoen sent two notes ahead with white flags to notify the British, whose guns were heard at Waterval Onder. Both messengers were fired upon and one had his horse killed under him. The prisoners looked rather thin because their provender had not been so liberal as it had been at Waterval, north of Pretoria.

We marched that day to Godwan Rivier Station, where next morning, August 31, all the attachés loaded their outfits on the cars and departed for Nelspruit, the new seat of Government.

Things were now going badly; the burghers, thoroughly worn out and demoralized, failed to make good the defense of the Lydenburg district and it became plain that a further defense of the Delagoa railroad would soon be impossible. The Government decided to abandon the line, descend to the plain on the east of the mountains, there to march northward and to gain the boshvelt and make a junction with the troops north of Pretoria by passing through the mountains north of Lydenburg. Wagon transportation was impossible on such a trip; the Government was henceforth to be on horseback, and as the aged President was too infirm to stand such rough journeying or remain in the field, his duties were intrusted to the Vice-President, Schalk Burgher, and President Kruger was given leave of absence on a much reduced salary and safely taken to Lourenço Marquez.

Realizing that our mission had come to an end, the attachés took official leave of President Kruger on the evening of September 10 and departed on the 11th for Lourenço Marquez. At Hectorspruit we were transferred from the regular train to a special train which, I believe, also contained President Kruger, although I did not see him.

Komatipoort, on the Portuguese frontier, was strongly held. Several hundred men had been there ever since the beginning of the war, and when rumors come of a British advance through Swazieland, the garrison was reenforced. When things were going badly the Government had also sent to Komatipoort most of the foreigners to enable them to escape from the British by crossing over into Portuguese territory.

Within two weeks British columns arrived at Komatipoort, and the Boers and foreigners retreated across the river without destroying the bridge, in compliance with the wish of President Kruger that the bridge be saved.

On August 26, President Stein, of the Orange Free State, had arrived at Machadodorp, having been escorted through the Free State and across the Vaal by his faithful lieutenant, Gen. Christian De Wet. He was in the best of health and spirits; he said the Free State had nothing more to lose and everything to gain, and hence it was time to fight. He left Nelspruit for Barberton on September 10 with the intention of rejoining De Wet in the Free State.

THE BOER AND HIS METHODS.

The Boer burgher was not a soldier, was not trained as a soldier, and did not want to be considered a soldier. His fighting methods were the outcome of his environment and personal character, which it is necessary to know in order to understand his work.

He grew up on the veldt and became proficient in horsemanship, marksmanship, and hunting in boyhood. The incursions of ferocious natives were forever to be dreaded. To be watchful and ready to defend their country became second nature to these people, and every house, it is safe to say, contained at least as many firearms as there were white males in the family. His elders had shared in the privations and hardships of early settlement, and participated in many expeditions and encounters against the natives, as well as in disasters and calamities. The father handed down to his son the methods employed in fighting the natives; he instructed him in hunting, in the use of firearms, and in estimating distances. The young Boer thus became proficient in some of the requisites of a soldier at an early age. The farms were far distant from each other, a condition under which education

was difficult to attain. Seclusion was the rule. Everything tended to keep the family together and the young man at home under the eyes of father and mother, thus developing a close family life, which became second nature to the Boer, and so indispensable that in the war it almost amounted to a calamity. The religion was that of the Dutch Reformed Church with its strict creed, and almost the only books in the house were the Bible and hymnal. The struggle against the natives and against existing natural conditions had retarded development and prosperity and all their concomitants. The settlers had been too poor and too busy to enjoy much in the way of literature and books; but the Bible and the hymn book were in every house; they were read daily and frequently; a deep, sincere religious sentiment permeated the whole nation, which in every walk of life sought for divine guidance in the Book of books. As may be expected from a people of that kind, they were a sober-minded, simple folk, civil and hospitable, unassuming, and not given to boastfulness, profanity, or drunkenness. During my stay of seven months with them I never saw a drunken Boer, and the greatest piece of profanity I ever heard was the Dutch equivalent for "Almighty." They were always good-natured; there were no quarrels to disturb the camp, and the only excited Boer I ever saw was one who had taken a spy in the act and was very wroth because President Stein would not let him shoot the criminal at once. This man was an exception in temperament as well as in his thirst for blood, for the average Boer tried to live a righteous life and shrank from the shedding of blood. In camp or at a halt on the march he read his Bible or hymn book, and at night after dark, groups of men would sing psalms and hymns, whose weird solemnity subdued the frivolity of any would-be scoffer. The men that led the Boers in prayer also led them in battle, and General Botha would not share a plate of simple camp fare with me on the tail gate of my cart without first saying grace. The Boers were reserved and dignified in their language. When the shell factory at Johannesburg was blown up, when they heard of the destruction of their homes by the British soldiery and of the devastation of their country, they were reserved and dignified and moderate in their language. Their religious sentiment predominated in everything, and their individual trend of sentiment was such that they were as much appalled

by the slaughter of the enemy incident to their victories as they were grieved by their own defeats.

Such were the Boers as I saw them. Before my arrival in Pretoria I knew the Boer but slightly from current literature, where he was depicted as a low, cunning fellow addicted to wife and slave beating and to drunkenness. For years his character had been assailed in the press, until the Boer was well-nigh rated as a savage by the average member of the civilized world who happened not to have been in South Africa himself.

By a sojourn of seven months in the Free State and Transvaal, and by daily association with the Boer of every class in victory and in defeat and misery, I have become impressed with the good traits that I have enumerated, and no fair-minded man will gainsay his earnest endeavor to fight his enemy honorably. Many gross breaches of civilized warfare have been laid at his door. If they could all be sifted in detail, it would be found that they were imaginary or due to ignorance or accident. Such alleged unlawful occurrences were not confined to the side of the Boers; they occurred on the British side also. When they occurred on the British side, the Boer had little to say about them. He did not give vent to his feelings by vilifying the enemy and vowing dire vengeance and "no quarter," but he invariably endeavored to reason out by what accident and under what misapprehension the British could have acted that way. When these alleged breaches of the laws of war occurred on the Boer side, a horde of war correspondents stood ready to snap them up and to heap libel on libel on the Boers. Wild statements and fabulous lies of frightened Kaffirs were accepted seemingly without question and used to convict the Boer in the eyes of the world of all sorts of atrocities. No one who has seen the Boer's solicitude to do the right thing by his enemy can believe his detractors. He bestowed the same care on the British wounded as on his own, and treated British prisoners with kindness and consideration. How far the minds even of British officers and soldiers had been poisoned by the * * * detractors of the Boers is evidenced by the surprise expressed by them at receiving humane treatment from Boers in whose hands they were captives. The Boer, as a rule, had no quarrel with the British soldier simply because he fought him. * * * * *

Another trait of the Boer is the democratic character of his institutions. He elected his officers, who became the servants not the masters of their commands, and had to call for volunteers whenever special service was required. In their councils the voice of the 16-year old stripling was heard with as much gravity as that of the experienced and seasoned man, and the enforcement of discipline was practicably impossible. The military organization was primitive, the outgrowth of small wars, where it had proved sufficient, but it was altogether insufficient for carrying on a war against a great power. Nor was the government of a highly developed form, a result that might have been expected in the case of a pastoral people widely disseminated over an enormous country and engaged in endless strife against nature and the ferocious natives and harried by the intrigues of adventurous outsiders. The consequence was that what there was of administrative staff departments could not meet the requirements of the war, and but for the hardiness and easy contentment of the Boer would have provoked grave dissatisfaction, and did so in the latter part of the war in the case of some of the foreigners who were fighting with the Boers.

Whatever may have been the exceptions due to selfishness or favoritism, this people, so religious and fond of home and family, responded nobly to the call for the defense of their country. Young boys and old men, exempt under the law, went to the front. I saw one man who had his deformed leg strapped to the saddle, his crutches slung over his shoulder and his carbine laid on the pommel of his saddle. Thus arrayed he had captured a British lancer.

His habits as a hunter and his experience in the Kaffir wars, as well as his personal sentiments, determined the Boer's methods of fighting. He fully understood the element of surprise in war and the advantage of anticipating the enemy at important points, of reaching them by stealthy, rapid movement, and of awaiting the enemy's onslaught in a secure position. He valued his life highly; he always fought from cover, where it was at all possible to do so, and never exposed himself unnecessarily. The natural sequence was that he took the strategic offensive and the tactical defensive. The tactical offensive was not his forte; he lacked the cohesion and discipline necessary for that rôle, and his religious sentiments were against it. His most serious defect was the lack of military

discipline; he was the citizen of a Republic, and made the laws under which he lived, and elected the officers over him. When a proposed movement did not suit him or his officer, he simply did not move, and many a well-planned affair was ruined in that way; neither the Government nor the generals could carry their measures to their logical conclusion. Having complied with the law calling him into the field, he yielded cooperation, not obedience. The burgher was as uncomplaining as he was enduring, a splendid horseman and good shot, self-possessed and cool under fire, but he set his own convictions over those of his superiors, and never hesitated to abandon a position he did not like, and he was terribly susceptible to homesickness.

When a force reached the vicinity of the enemy, the question was not how to attack him, but to find a position suitable for repulsing his attack. The position, the Boer realized, had to make up for his inferiority in numbers of men and guns and for his lack of offensive capacity. So far as the strategic features of the position were concerned, it was selected by the general who had also distributed the commandos along the line. The details were arranged by the burghers, whose hunting instincts and eye for the ground were infallible guides. Having a correct appreciation of the power of the arms he used, the position the Boers selected invariably commanded the ground in front, offered an extensive field of fire devoid of cover, and rendered the last stage of the approach of the enemy as difficult and deathly as possible. The Boer would not distribute his men all along the line or occupy intervening ground that he could command by rifle and artillery fire from neighboring hills, and in an emergency always had his horse at hand to gallop to a threatened point and reenforce it. He never hesitated to take up positions more extensive than would the regular soldier. The ground lent itself admirably to these tactics, which were moreover favored by the offensive spirit of the British army. There were many ridges or lines of isolated hills, which commanded the ground in front by several hundred feet, whose bowlders afforded absolute protection against artillery and small-arms fire, and, in combination with the steep slope, rendered a direct attack hazardous. The reverse slopes covered the horses, which where standing there in groups or lines saddled for instant use. The location of the camp depended on circumstances; they were always kept

out of sight, behind ridges and hills. At Poplar Grove the camps were immediately in rear of the position, but after the invasion of the Free State they were kept at a safe distance in rear. There were, in fact, no more regular camps, for there were no more private wagons, and only sufficient transportation for ammunition, subsistence, and medical service, and these wagons were kept as much as a day's march in rear. In daytime a small guard and lookout were kept in the position, the burghers remained invisible behind their hills, and were near enough to at once man the position.

Sometimes the bowlders were of such size and distribution that no artificial cover was necessary; where this was not the case, for instance, when the bowlders were small the Boers heaped them up in piles. On Big Kopje at Poplar Grove these piles were about eight or ten paces apart and large enough to shelter two men. At Bergendal the Johannesburg police had heaped the small bowlders in crescent-shaped outline, dug out the ground in rear, and filled it in between the stones. These little trenches were large enough for from four to six men, and from thirty to fifty paces apart. Frequently trenches were dug at the foot of an occupied hill; these were usually of shallow profile.

Where bowlders were not available on the main line of defense, trenches were dug; they were of all sizes and shapes. The trench on Laings Nek that I saw was about 2 feet wide and 3 feet deep, the excavated ground had in places been thrown to the rear, in others to the front; the trace at some points neglected the military crest, thus restricting the command to a few yards of ground in front. At Bergendal the foreigners on the right of the Johannesburg police had dug trenches and rifle pits 5 feet deep and removed the excavated ground out of sight. I was told of one instance where the trench at the foot of a hill was held by men armed with Mausers, while those on top had Martini-Henry rifles using black powder. The smoke attracted the enemy's fire and the attacking infantry walked unsuspectingly into the fire of the men at the foot of the hill whose whereabouts were not discovered for some time.

The artillery was distributed among the commandos, as no commando liked to be without at least one gun. This resulted in the dispersion of the guns as well as of their fire, and was to a certain extent unavoidable on account of the

great extent of the positions that had to be taken up on account of the greater number of the enemy's guns. So far as my observation went, there was usually not more than one Boer gun to a British battery, and sometimes the disproportion was greater. The Boers did not hesitate to place their guns in conspicuous positions even though they fired black powder, as did the Free State guns, but they took the precaution of covering them with heavy epaulments made of bowlders, sandbags, and dirt. In selecting such positions they were also to some extent justified by the superior range of their guns over the British Armstrong. They took not only their field pieces, but their 6-inch guns, weighing 12,000 pounds, to the tops of seemingly inaccessible hills and mountains, and the four Long Toms intended for the armament of the Pretoria forts, did service as field, position, and mountain guns, respectively. The mobility of the heavy guns on both sides is one of the striking features of the war.

When the enemy attacked the position, the Boer artillery frequently opened fire at ranges where the Armstrong guns were ineffective, and outranged and outclassed by the Krupps and Creusots; there was not a bush or a tree anywhere and the fall of a shell could be as distinctly seen at 7,000 yards as at 3,000, and an effective fire could be maintained both with artillery and small arms at ranges that in an ordinary country are rendered impracticable by the integuments of the ground. In advancing to the attack the British troops had invariably to traverse either an open plain, or, worse yet, to ascend a long, gentle, bald slope leading up to the foot of a precipitous, rocky hill where the defender, himself unseen, could see every man of the approaching attackers, and that the British suffered heavy losses under these circumstances was quite natural. To fully appreciate tactical questions in connection with this war, the peculiar character of the terrain must be understood. There was no opportunity to come up under cover and deliver a surprising and decisive flank attack; all such diversions had to start from a point far in rear and proceed far to the flank, and were as likely as not to be frustrated by a small body of Boers galloping off and occupying some kopje or rocky ledge "to shoot them back." The Boers never had enough guns to shake the British before their infantry proceeded to the assault while they themselves had to withstand a heavy artillery fire. The ranges at which the Boers

opened small-arms fire varied; sometimes the range was so great that no effect could be expected and the fire was a waste of ammunition; more frequently they waited until the enemy was in considerable bodies within 1,500 or 1,200 yards, and sometimes they waited until the enemy was very close (50 paces at Sannas Post). Under fire the Boers were remarkably cool and deliberate, carefully adjusted their sights, and, unless hard pressed, fired slowly. Once started on the attack the British infantry had no cover against the Boer artillery, and was pelted by the disconcerting swarms of small shells from the Maxim-Nordenfelt. The value of this gun is proved by its introduction in the British army in South Africa after its exasperating effects had been experienced.

When the Boer had confidence in his position, he remained there as long as ammunition was forthcoming, but as soon as the position developed weak points and when flanking columns that could not be staved off, were reported or appeared, he left the position while he could, whereas the foreigners frequently remained and exposed themselves to great loss and capture. As a rule, his lack of offensive capacity prevented the Boer from reaping the fruits of tactical victory, unless indeed the enemy had been so severely repulsed that he withdrew and thus enabled the Boers to move to some other favorable position in front. He was contented when he had repulsed the enemy.

After the fall of Pretoria, the Transvaal forces were very much scattered. To the east of the city the ground was open and the enemy's front extensive. The line taken up by General Botha at Bronkhorst Spruit, 3,000 men to 30 miles of front, was simply a line of outposts. In order to offer any resistance to a British advance it was necessary to denude parts of the line, and the Boers thus withdrawn would converge on the enemy's column and endeavor to bring him under fire from as many directions as possible. Their mobility enabled the Boers to meet in this way isolated British columns, but were of course unable to resist combined movements in force because the ground failed to compensate for their small numbers.

The Boers were always fairly well informed of the enemy's whereabouts and doings; they were operating in their own country, a scouting company under Captain Theron had been formed as already mentioned, the country was open and

observation easy, and there always was a number of Boers roving around in front, whose sharp eye nothing could escape. But the information was not always as full and accurate as it might have been, and the information coming in was not always communicated and forwarded, and was sometimes allowed to drift where it did harm by giving rise to exaggerated camp rumors. Judging from newspaper accounts the Kaffir was a prolific source of information for the British, but I never saw him employed by the Boer for any other purpose than camp duties. The reports that he was being used as a combatant may have arisen from the fact that some Kaffirs were caught carrying the rifles and belts for their masters. In the latter part of the war detailed information was difficult to obtain; the British army had become proficient in the use of the terrain, and covered itself with advanced posts so that their main bodies could not be brought under observation except by an action. The Boers then made use of night patrols and crept through the enemy's lines, but correct observation is difficult to obtain at night, and neither at Bronkhorst Spruit nor at Dalmanutha did we know whether the enemy's troops in our front numbered 10,000 or 50,000.

In the transmission of intelligence the bicycle played a prominent part. The cyclists did not confine themselves to the roads on which they had the right of way; they made short cuts by following cattle paths, and even rode across the prairie. During the operations in the Free State in March and April the number of cyclist dispatch riders was considerable, and they were numerous in the operations east of Pretoria. They could be found at every general's headquarters, and General Botha usually had two or three cyclists at his disposal, in addition to several mounted orderlies. The cyclists did not encumber themselves or their wheels with any special equipment, were dressed like ordinary cyclists (knee breeches and long stockings), and sometimes carried a revolver.

The heliograph also found extensive employment. The equipment has been described. The heliograph was used to connect parts of the positions with each other and with headquarters, and to put the commanding general in communication with the telegraph. I am told that the small Boer detachment which brought the turning column on March 7 to a standstill, had been called up from Petrusburg by heliograph.

REMARKS.

In point of tactics it may be remarked at once that while some features were brought out in strong relief, the war established no new principles and the subject may be briefly dismissed.

The cause underlying all tactical modifications suggested by this war is a condition of things that allowed of the development of the maximum fire power that can be gotten out of modern fire arms.

As regards attack, the theory still holds good that the attacker must be superior in number of men and guns, support the attack by flank attack and turning movements, and be prepared for sanguinary losses. The mutual rôles of infantry and artillery in the attack have not been changed. The artillery must still beat down the opponent's artillery fire and then devote its attention to his infantry in a manner that will prevent it from doing much damage.

The most striking features in the attack in this war are the invariable difficulty presented by the terrain and the frequent enormous disproportion between attack and defense in men and guns. While the fine defensive positions taken up by the Boers and their superior marksmanship compensated to some extent for their numerical inferiority, the superior quality of their field pieces could in no way make up for their paucity. If, therefore, it were desired to apply the experiences of this war to the accepted theories of modern warfare, we miss one essential element for satisfactory comparison, i. e., anything like an approximate equality in artillery at the beginning of the action. The Boers did not possess a sufficient number of guns to shake the enemy's infantry seriously before it proceeded to the attack; this infantry, therefore, entered upon its task without having first to undergo the crucial test of artillery bombardment, and did not, during the attack, begin to be subjected to the artillery fire to be expected in European warfare. Accepting as sound that British precept not to attack with less than five-fold superiority in men, we must still balance the artillery before giving that precept general application. Had the Boers had three or four guns where they had one, the rôles would perhaps have been sufficiently equally divided to admit of generally applicable deductions. But the prolific source of Boer defeats was their lack of a

sufficient number of guns, though, in one instance at least, at Abrahams Kraal, defeat was in the first place due to lack of small-arms ammunition, which was inexcusable, considering that the Boers were on the defensive and in a position which they had occupied for several days.

To minimize the effect of fire at the increased range the British army used an open formation and resorted to the use of khaki color to render the enemy's target less conspicuous. Officers and men were dressed in khaki color from head to heel, and even their guns and artillery carriages were painted khaki color. On the open veldt it was extremely difficult to discover an individual against the back ground of dead grass.

The British infantry deployed for attack in a number of successive lines with intervals of five or more paces between men and distances of about ten paces between lines. This was perhaps a suitable formation for movement under the enemy's fire, but it does not seem certain that such a line has sufficient fire power to gain the superiority over the enemy. The British infantry attacks succeeded partly because of turning movements and flank attacks, partly because the Boers ran out of ammunition, and I did not learn of any case (where the Boers had determined to hold their ground) that the frontal attack succeeded by its own power. Even at Bergendal the insignificant force of the defender yielded only when assailed by heavy artillery fire from three sides.

The consequence of effective fire at increased ranges naturally was an increase of the tactical intervals and distances.

The attacking infantry had to cross a longer fire-swept zone; supports and reserves had either to submit to the same fire as the troops in front of them or must disappear altogether from the field as assistants of the firing line; on account of the greater depth of the fire-swept zone a thorough reconnaissance of the enemy's position became both more necessary and more difficult, for the range, precision, rapidity of fire of the small arm in combination with smokeless powder make it possible to keep small reconnoitering parties at such a distance that they can not see anything; they make it possible for small bodies to deceive the enemy as to their strength and to such an extent that insignificant detachments under good cover may compel the deployment of a large force; in order to locate and see the enemy it was necessary to engage

him and this was invariably the case when either side was in position and the other sought to reconnoiter it; from a few strongly occupied points it was possible to keep under fire large intervening spaces and the defense generally was able to spread over a larger front; the slow advance over the long fire-swept zone imperatively suggested the use of the spade on the part of the attacker; though, so far as my knowledge goes, the British soldier disdained intrenching on the offensive, etc.

It is not necessary to go through the entire vocabulary of tactics and point out modifications suggested by this war, point for point; it is the same thing everywhere; increased distances on account of effective fire at increased ranges, made possible by the character of the ground which was as uniform as it was abnormal and permitted of the maximum fire effect that could be gotten out of modern arms. One can not but be struck by the ready and thorough appreciation of these conditions by the Boers from the beginning of the war, and by the lack of it on the side of the British. The marksmanship of the Boers pitted against the aggressive tactics of the British troops has given a modern illustration of Napoleon's old adage: "Fire is everything, the rest is nothing." It was an ocular demonstration of the terrible power of modern firearms under the most favorable possible conditions.

The inference is that an effective army requires the best firearms and highest attainable marksmanship, no matter what the cost may be.

The color of the field uniform has become a very important matter, and the use of subdued colors like gray, khaki, light brown, etc., depending on local circumstances, will go a long way in protecting the individual. In the stretches of dead grass considerable bodies of British troops would suddenly make themselves invisible, when brought under artillery fire, by simply lying down. The grass was but a few inches high and did not hide them, but the color of their khaki uniforms blended admirably with that of the grass. In Madagascar I saw the French troops wear dark blue colored cotton drilling instead of khaki, and was told that on account of the strong colors prevailing in the country this blue uniform was less conspicuous than khaki.

When the tactical action of the three arms began at the increased ranges the matter of field glasses became a live question. The enemy was not only distant, but used every device to make himself invisible, yet to see and locate him was more important than ever. The ordinary field glass sufficed no longer; the officers nearest the enemy, i. e., the company officers, needed at least the Zeiss glass of 8 magnifying power, and the higher the rank of an officer and the farther his proper station from the firing line the more powerful was the glass he needed. General officers must have powerful telescopes.

Since we are fighting in the Tropics, a remark on headgear may not be out of place here. In this connection it may be stated that wherever I have been in the Tropics it was a recognized principle that the back of the head and neck must be protected from the rays of the sun, and that the overhead cover must be thick. All manner of hats I saw worn in the Tropics were larger and heavier than our campaign hats. The Portuguese troops in South Africa wore a hat larger and heavier than ours, and one form of hat worn by civilians consisted of two hats fitting over each other. My own campaign hat, purchased from the Quartermaster's Department, had seen service in the Philippines, went through seven months of campaigning in South Africa, and is still presentable, so that the quality of the material leaves nothing to be desired. But in the hot season in South Africa it was not thick enough, and required the insertion of a handkerchief, and the brim was not broad enough by an inch. If it could be modified in these directions, with the addition of some ventilation between hat and sweat leather, it would be the ideal headgear for the Tropics. Helmets, while fulfilling other conditions, have the disadvantage of being too heavy and inconvenient in the field.

Cavalry that is incapable of effective fire action has no place in modern war. All its functions are influenced by the fire effect at the increased range. The *arme blanche* is useful to-day only under circumstances where the enemy is helpless and can be knocked in the head with a club as easily as stuck with a lance or cut down with the saber. On the other hand, there is not a single function of cavalry that it is not better fitted to discharge if capable of the same fire action as infantry. The British cavalry was neither sufficient in number

nor trained in full appreciation of its modern rôle, and mounted infantry had to be resorted to as a stop gap. But mounted infantry is at best a makeshift. What is wanted is cavalry capable of fighting on foot with the carbine, a cavalry like Sheridan's, which acted as cavalry in heading off an entire army, and like infantry in fighting and holding that army until sufficient troops reached the spot to bag the enemy. The soundness of the traditions and theories of our service as regards cavalry, and its armament and training, has simply received a further confirmation in this war. The fighting of the Boer resembles very much that of our cavalry; in fact our cavalry, with its training and armament, would have been a far better match for the Boers than either the British cavalry or mounted infantry. The resemblance is further illustrated by the raids made by the Boers; with them, as with our cavalry in the civil war, similar causes brought forth similar effects. Nor will the British mounted troops be a match for the Boers until they can ride, not like mounted infantry, but like cavalry, and until they can fight, not like cavalry, but like infantry. The only cavalry lesson we draw for ourselves from this war is that we can not have enough of our kind of cavalry.

In matters of artillery the war has likewise failed to revolutionize any of the broad principles relating to the employment of artillery. The artillery remains the close ally of the other arms, and more so than heretofore. It must overpower the enemy's batteries and keep down his infantry fire; it must utterly smash, wreck, and devastate the point of attack before the infantry can do its work with anything like reasonable losses. Under normal circumstances the result of the attack depends very much on the previous work of the artillery, and no artillery can play its proper rôle if inferior in range and accuracy to the opposing artillery, and no infantry backed by such inferior artillery can attain its tactical object without an effusion of blood that must rest as a crime on the heads of those who are responsible for the armament of the artillery.

One feature of this war is the superior effective range of the Krupp and Creusot guns of the Boers over the Armstrong gun of the British. It is a very comfortable feeling to be able to pelt the enemy without his being able to reply. The Boers fully appreciated this and were not long in bringing forward the four heavy guns from the forts of Pretoria. The awkward and helpless situation of the British troops in Natal before the

arrival of long-range 12-pounders and 4.7-inch guns is a lesson that ought to be taken to heart by all nations whose artillery is not of the most approved pattern.

The British artillery fought well and made good practice, but did not have an effective range beyond 3,500 yards at the utmost, whereas the Creusot gun fired easily and accurately at 5,000 yards and over. Though not possessing all modern requirements, the British guns might have sufficed in an ordinary country, but the moment one of these lacking requirements became essential, as did long range in this war, the British army found itself at a great disadvantage. It was very fortunate for Great Britain that the Boer artillery was not numerous.

I was very much struck by the narrow cone of dispersion of the British shrapnel. The head is fastened to the body of the shell by rivets and blown off by the explosion of the bursting charge. The depth of ground beaten by this projectile was fairly deep, but the positions of the Boers were very thinly occupied and a wide cone of dispersion would have been more useful than a narrow one. A shrapnel having a more lateral dispersion than the British projectile may require greater nicety of ranging, but the British gunners were fully capable of that, for their fire within effective range was uniformly accurate.

On March 7, at Poplar Grove, three pieces of Boer artillery took position on the rearmost of two small parallel ledges of rock about 2,000 yards east of Poplar Grove, where the top of the British balloon loomed up over a low swell like the cupola of the Congressional Library. As a British battery opened on the three guns immediately, they withdrew, and although the second ledge where the guns had been, must have been barely distinguishable from the battery (about 2,500 yards distant), yet every shell hit the ledge and the place where the guns had been.

The appearance on both sides of heavy guns up to a caliber of 6 inches and their mobility are some of the features of the war. I do not know what they accomplished in Natal. In the campaign that I witnessed they fired at ranges measured by miles, and their effect was moral rather than physical. While we were lying at Bronkhorst Spruit and the British were in position to the south and to the northwest of Donkerhoek, they had some of their heavy guns on a commanding part of

the ridge they occupied, and fired at everything within sight up to 4 and 5 miles. One of the shells killed four Boers, all the rest merely terrorized the women and children in the farmhouses and drove them out into the shelter of the hills and rocks. The fire of these guns at Dahmanutha was equally ineffective, and so far as I could judge the fire of the heavy guns of the Boers was no better.

The lyddite shell can hardly be said to be a success in field operations. It tears a hole in the ground $1\frac{1}{2}$ to 2 feet deep with a diameter of about 3 feet; it explodes with tremendous force; its gases have a vile odor, injure the tissues of throat and lung and produce an asphyxiating effect, but otherwise its action in the open field is practically *nil*, as the shell simply seems to "dissipate." The shell is rent into large and small fragments; the large fragments, usually belonging to the conical part of the shell, remain in the crater and their thickness of metal is very much reduced by the blow struck by the detonation of the bursting charge; the small fragments of the shell seem to be thrown upward so that the radius of action of this shell is very circumscribed. On July 9 a heavy lyddite shell struck a tree near Olifantsfontein, under which four Boers were sitting in the grass, and it killed them. I saw a man who had been struck by a fragment of a lyddite shell at a distance of ten paces; the fragment was of the size of a walnut, very jagged, but had lodged directly under the skin. While the lyddite shell thus fails to produce good results in the open, there is every reason to believe that in confined spaces, as in the bowels of a ship or in a casemate the effects of its explosion and of its gases would be devastating. On July 9 several large lyddite shells fired at a range of 4 or 5 miles fell very close to General Botha's party, but striking soft ground they buried themselves without bursting, much to our relief.

The shrapnel is altogether more dangerous than the high-explosive shell, and its sweeping and searching effect, when one has to face it in the open, is most unpleasant.

About the machine gun little is to be said. The exasperating effect of the 37-millimeter Maxim-Nordenfelt has been mentioned. There is no doubt of the effectiveness of this class of guns on the defensive, and it may be equally effective on the offensive if the opposing artillery permits its employment for that purpose. For the present, small-caliber machine guns

like the portable Maxim will probably remain the only ones that accompany the infantry attack.

The British artillery always strongly supported the attacking infantry and kept up its fire to the last minute; indeed I was told by Boers of numerous instances where the British shrapnel had burst short and caused casualties in the attacking infantry. A German ex-officer, who fought with the Pretoria police at Abrahams Kraal, told me that he and his companions saw many British soldiers fall under their own shrapnel, and he estimated the casualties thus produced in that action as between one and two hundred.

Basing my opinion on the performance of the British shrapnel, it may be said that this projectile produces a very limited effect on men in narrow standing trenches or in rifle pits or behind breastworks, unless the guns can deliver an oblique or enfilading fire. The preparation of the attack will consume much time in the future, if we may draw conclusions from the action at Bergendal. There the British artillery did not have to consume time in overpowering the opposing artillery, for there was none worth speaking of, and the guns could, from the beginning, devote themselves to the bombardment of the defending infantry. The British artillery had fired thus for two hours when the infantry fire began, and for two hours and ten minutes more it had to add its fire to that of the infantry, before the position was carried against an enemy insignificant in number and destitute of assistance from reserves or from any other source. On open ground and where more troops are contained in a given occupied area than was the case in this war, the shrapnel is no doubt all that is claimed for it as the man-killing projectile.

The war teaches us that we can not afford to be without a field gun combining the maximum of precision and range attainable; that we must have many of them and highly trained gunners, and that if we mean to do real damage to a well-intrenched enemy, we must be prepared to resort to high-angle fire.

Much ado has been made about Boer intrenchments. It was not my good luck to see anything striking in that line. The Boers generally, not invariably, selected proper sites for their intrenchments; they were simple, crude in construction, and neither in trace, size, nor finish was there anything approaching the miles of beautiful trench work to be found all

over the island of Luzon. The well-known theories about intrenching still hold good. The defensive must always intrench; the offensive will frequently be compelled to do so, because its progress over the increased depth of fire-swept ground will be comparatively slow; fatigue, the enemy's fire, necessity of waiting for supports, may cause lengthy halts during which the attacker must seek cover and for this purpose any sort of a hole or shallow trench will do. Not so on the defensive; there thorough preparations must be made for neutralizing the enemy's fire. The shallow, lying-down trench affords concealment only, but no shelter from the shrapnel bullet; the defense needs the narrow, standing trench of broken trace, the immediate supports and reserve must be close up to the line and equally well sheltered; the guns of the defense also need intrenching, and thus the more inferior they are to the enemy.

The influence of smokeless powder on battle is known from our practical experiences in the West Indies and in the Philippines, and nothing remains to be said on that score, except, perhaps, that in the operations I witnessed in South Africa, the blast from the discharge, on account of the dryness of the ground, threw up a cloud of dust by which the gun could be readily located. In the case of the British heavy guns south of Donkerhoek the cloud of dust could be seen plainly at a distance of 15 miles. In the absence of the cloud of dust the gun must be located from the direction from which the projectile comes, and by the flash of discharge. Here is where improved field glasses and telescopes become indispensable. The Transvaal State Artillery was provided with the small as well as with the largest forms of the Zeiss glass.

The Free State and Transvaal railroads played the ordinary rôles railways always play in war. Troops could be sent from one point to another with rapidity and ease and supplies forwarded or removed promptly. The railways in question have a gauge of 3 feet 6 inches, and for the most part follow the winding contours of the ground, there being comparatively few cuts and fills. Of bridges and culverts there were many, and in the Transvaal every one of them was guarded by a few men. Great care was taken by the Boers to prevent engines and rolling stock from falling into the hands of the British; most of it was sent to the Barberton and Selati

branches of the Delagoa railroad and did not fall into the enemy's hands until September, 1900. The amount of rolling stock captured up to that time was small, but small as it was, no doubt rendered invaluable service to the invader. The war is not characterized by great enterprises against the railways of the Boers; in two instances individuals blew up the railroad, one of which, on the Johannesburg-Pretoria line, resulted in the capture of some rolling stock that had not been withdrawn; the other case happened east of Machadodorp where part of a culvert was blown up without effecting any ulterior result. Retreats were never effected by rail, though the supplies were usually removed in that way. During the retreat through the Free State the last train but one was always an ambulance train to pick up the killed and wounded, and the last train was the dynamite train to destroy the railroad in rear of the retreating army. The line from Bloemfontein to the Vaal had not a bridge standing when it fell into the enemy's hands. - On the retreat from Pretoria eastward the last train was "Long Tom's train"; this was in no sense an armored train; on its last truck, which had been strengthened for the purpose, one of the four 6-inch guns of the Boers was mounted behind a sand-bag cover, the remaining cars contained ammunition and the personnel, and even families of some officers and men. No armored trains were used on either side in the operations that I saw, and from what I have heard of their use elsewhere in the war, they do not seem to have been a success. This is readily explained, for nothing is easier than to cut off or derail such a train. The Boers generally traveled in first-class carriages, except in the later stages of the war, when these cars had been removed to a place of safety. My last journey in an ordinary railway carriage was from Pretoria to Machadodorp in the beginning of June; after that I invariably traveled on an open truck.

The causes of the defeat of the Boers are not far to seek. The preponderance of Great Britain in men, money, and warlike material was overwhelming.

There can be no doubt that the Boers, or rather General Joubert, allowed himself to be blinded by the easy victory of the Boers in the preceding war against Great Britain and fell into the great error of underestimating the enemy's strength. The number of men the two Republics could put into the field

was insufficient, and so was the number of guns on hand. A proper appreciation of Great Britain's power would have cautioned the two Republics to avoid rupture until sufficient artillery and ammunition were on hand, and to look for allies to swell their ranks. For the latter they would not have had far to seek. The Cape Colony contains a large population of the same stock as the Boer north of the Orange River and who made no secret of its sympathies; all these people needed was tangible encouragement and assistance. This could have been brought about by a powerful invasion of Cape Colony at the outset of the war, when there was nothing to prevent it. The occupation of the passes leading into Natal and the overrunning of that country by a raiding column would have neutralized the British troops in that quarter. The invasion of the Cape Colony by 30,000 Boers would have diverted the main struggle from Natal, doubled the number of Great Britain's foes, and placed the resources of the country at the disposal of the two Republics. This course was urged by the younger leaders, but failed to meet the approval of the commander in chief. General Joubert was an old man and no longer possessed of the vigor of mind and will required in his position; he was averse to taking risks. There can be little doubt but that he reasoned from former experiences that some fighting on the Natal border would be all the war there was to be. He abhorred war and its miseries from the bottom of his heart, and strove to spare both his men and the enemy as much as possible. This course led to the useless and unsuccessful sieges now so well known, in which the strength and enthusiasm of his burghers were consumed, and was so contrary to the interests of his side as to give rise to various ugly rumors, which, it is hardly necessary to say, were without foundation in fact. The Government of Great Britain, however, and her armies failed to fall into line with the idiosyncrasies of the Boer leader and made war with all their might. General Joubert lived long enough to see the total failure of his course; before he died, the enemy had succeeded in invading the Orange Free State and had reached 'terrain where he was formidable, the Boers had to fall back all along the line and were disheartened, worn out, and homesick, whereas the enemy had gained new enthusiasm and energy from his success.

The raiding columns of the Boers are now roaming in Cape Colony with the evident intention of repairing the mistake made by their commander in chief at the beginning of the war; but it is too late now: "Errors committed at the outset of a campaign can never be repaired during its course."

A powerful ally of the British army was the lack of discipline and proper military organization on the part of the Boers.

What I saw of the struggle of these simple farmers against the trained troops of the British empire was pathetic to behold; it was the old story of enthusiasm and valor as against organization and discipline, and it had the same invariable result. Yet the farmers were undaunted. When I took leave of Mr. Reitz, the state secretary, he was on horseback carrying bandolier and carbine and leading three spare horses; he smiled and said to me, "If your people could fight eight years for their independence, we can!"

Respectfully submitted,

CARL REICHMANN,
Captain, Seventeenth U. S. Infantry.

BRIEF SUMMARY
OF
MILITARY OPERATIONS
IN
SOUTH AFRICA.

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SUMMARY OF OPERATIONS IN SOUTH AFRICA.

BOER ULTIMATUM AND BRITISH REPLY.

On the 9th of October, 1899, the South African Republic transmitted, through the British high commissioner at Pretoria, an ultimatum requesting that all points under dispute should be referred to arbitration; that the British troops should be withdrawn from the frontier; that all troops landed in South Africa since June 1, 1899, should be removed, and that Her Majesty's troops then on the high seas should not be landed at any South African ports. It also stated that if a satisfactory answer was not received by 5 p. m. on the 11th instant, or if there was any forward movement of British troops already in South Africa, the South African Republic would be compelled to regard the action of Great Britain as a formal declaration of war and would not hold itself responsible for the consequences thereof.

This ultimatum was received by the colonial office in England on the 10th, and the British Government replied that it had received with great regret the peremptory demands of the South African Republic, and that the conditions demanded were such as Her Majesty's Government deemed it impossible to discuss.

On the 11th of October the South Africa Republic began hostilities, although the formal declaration of war was not made until the day following. The Orange Free State joined the South African Republic, to which it was bound by a treaty of alliance.

BOER FORCES.

The Boer army was a great surprise, not only to the British, but to the whole world. Even those who were considered well posted on Boer matters were not a little astonished. For instance, Lieut. Gen. den Beer Poortugael, of Holland, wrote a short time before the outbreak of the war, "At the most, the Boers are adapted only to a petty warfare, carried on by

detachments of from 300 to 400 men; but to gather their forces for a great attack would prove disastrous, as their leaders have not learned the tactics of larger units, and the Boers themselves are not well adapted to a regular engagement."

The standing army maintained by each of the Boer Republics before the war consisted only of a single cadre of regular artillery and a small police force. The large mass of the mobilized army in the field consists of the whole available force of the Boers, i. e., of the native and naturalized burghers of the Transvaal or Free State. They take arms whenever summoned to do so on occasion of internal or external danger. They are organized on the principle of general military service, and consist of irregular sharpshooters called under arms only in case of mobilization. They are provided with arms by the State, but are mounted on their own horses.

Their valuable traits from a military standpoint are their ardent patriotism; a firmness of religious conviction, with an unshakable trust that God will protect their righteous cause; a patriarchal regard for authorities, older men, and heads of families. To these must be added tenacious endurance and ability to handle the rifle, brought about by hunting, practice, and skirmishes with the natives. This training enables the Boer to aim and fire at single men whom his keen eye can still distinguish at distances where ordinary infantry could aim only at a general line.

The war formation of the Boer army corresponds to the peace subdivision of the districts in which the burghers are residents. The President is commander in chief. The office of the highest field commander or commandant general was held in the Transvaal by General Joubert and in the Orange Free State by Grobler. The system employed, method of mobilization, training, discipline, armament, etc., are explained in detail in the published reports of our military attachés accompanying the British and Boer forces in the field.

On February 1, 1900, it was officially stated in the British Parliament that the war office estimate of the military strength of the Boer Republics in 1899 was: "Men liable for military service in the South African Republic, 29,279; in the Orange Free State, 22,314; total 51,593. The number of British subjects liable to join the Boer ranks was estimated at 4,000 and

of foreigners at 4,000, increasing the number to 59,000. The Boer artillerymen were put at 800 and the police at 1,500. If these are added, the number rises to about 62,000 men."

According to the figures of the Boer Identification Department, the total number of men who had seen service at any time up to the end of May, 1900, was 52,263. Comparing the British official estimates with the official figures of the Boers we find a difference of less than 10,000. When it is considered that the white population of the Orange Free State as shown by the census of 1890 was but 40,571 white males and that of the South African Republic in the census of 1896 was but 137,947 white males, or a total for both Republics of 178,518 white males, and that these figures also included the Uitlanders, we can not but conclude that the total Boer forces in the field must have been smaller than the British estimate.

THE BRITISH FORCES.

NATAL FORCE.

The following was the approximate strength of the force in Natal under Gen. Sir George White at the opening of hostilities, the figures being rather under than over the mark:

Infantry:

First battalion Liverpool regiment	750
First battalion Leicestershire regiment	800
Second battalion Royal Dublin Fusiliers	750
First battalion King's Royal Rifles	750
Second battalion King's Royal Rifles	750
First battalion Devonshire regiment	800
First battalion Manchester regiment	750
Second battalion Gordon Highlanders	800
First battalion Gloucestershire regiment	800
First battalion Royal Irish Fusiliers	700
	<hr/>
	7,650
	<hr/> <hr/>

Cavalry:

Fifth Lancers	400
Ninth Lancers	400
Eighteenth Hussars	450
Nineteenth Lancers	400
	<hr/>
	1,650
	<hr/> <hr/>

Artillery:

Thirteenth, twenty-first, forty-second, fifty-third, sixty-seventh, and sixty-ninth batteries, R. F. A., and tenth battery, mountain division, R. G. A. (42 guns)	1,218
Eighteenth, sixty-second, and seventy fifth batteries, R. F. A. (18 guns)*	530
	<u>1,748</u>

Engineers:

Seventh, eighth, and twenty-third field companies, and twenty-ninth fortress company	600
Army service corps, ninth, fifteenth, thirty-first, and forty-first companies*	300
Army ordnance corps, half No. 4 company*	40
	<u>940</u>

Volunteers:

Natal volunteers	760
Natal carbineers	120
Imperial light horse	500
Durban volunteers	750
Natal mounted police, with 9 field guns	550
	<u>2,680</u>

Grand total, 69 guns and 14,668 men.

All the Indian contingent had now arrived, excepting the Fifth Dragoon Guards, which were delayed at Bombay on account of sickness among their horses.

This Natal field force constituted the fourth division, under orders of Col. Sir W. P. Symons, who held the local rank of lieutenant general. It comprised the seventh and eighth brigades of infantry and the third brigade of cavalry.

CAPE FORCE.

On the Cape and western side of the Transvaal and of the Orange Free State the forces were smaller and more scattered. The regular troops available were:

First battalion Northumberland Fusiliers	770
First battalion Royal Munster Fusiliers	750
First battalion Loyal North Lancashire regiment ..	800
Second battalion Royal Berkshire regiment	750
Second battalion Yorkshire Light Infantry (4 companies)	320
First battalion Border regiment	700
Second battalion Rifle Brigade (due October 29) ...	700
Total	<u>4,790</u>

* Arrived shortly after outbreak.

1st Army Corps mobilized for Field Service in South Africa.
 Army and Army Corps Staff - 173.

47,551 (2832) officers and men, 122 guns.

Cavalry Division.
 Divisional Staff - 42.

5589 (282) officers and men, 14 guns.

2nd Cavalry Brigade.
 Brigade Staff - 20.

1st Cavalry Brigade.
 Brigade Staff - 20.

6 th Dragoons 538(47)	2 nd Dragoons 538(47)	1 st Dragoons 538(47)
■	■	■
	Ammunition Column. 64	O Battery, R.H.A. 136.
	⊠	⊠
	Mounted Infantry Staff 20.	⊠
	2 nd Battalion, 586.	⊠
Field Hospital, No. 6, R.A.M.C. 40.	Bearer Co. No. 12, R.A.M.C. 61.	No. 11 Co., A.S.C. 74.
⊕	⊕	□

12 th Lancers 538(47)	10 th Hussars 538(47)	6 th Dragoon Guards 538(47)
■	■	■
Field Troop, R.E.	Ammunition Column. 64	R Battery, R.H.A. 136.
	⊠	⊠
	Mounted Infantry Staff 20.	⊠
	1 st Battalion, 586.	⊠
Field Hospital, No. 9, R.A.M.C. 40.	Bearer Co. No. 9, R.A.M.C. 61.	No. 13 Co., A.S.C. 74.
⊕	⊕	□

3rd Infantry Division.
 Divisional Staff - 53.

2nd Infantry Division.
 Divisional Staff - 53.

1st Infantry Division.
 Divisional Staff - 53.

6th Brigade. Staff - 24.	5th Brigade. Staff - 24.
2 nd Bn. N. Scots Fusil. 1019(93)	2 nd Bn. R. Irish Fusil. 1019(93)
2 nd Bn. R. Welch Fusil. 1019(93)	1 st Bn. R. Dublin F. 1019(93)
Bearer Co. No. 7. 61.	Bearer Co. No. 16. 61.
⊕	⊕
Field Hospital, No. 11, R.A.M.C. 40.	Field Hospital, No. 10, R.A.M.C. 40.
⊕	⊕

4th Brigade. Staff - 24.	3rd Brigade. Staff - 24.
3 rd Bn. Kings R.R.C. 1019(93)	2 nd Bn. Scots R. H. 1019(93)
1 st Bn. Rifle Brig. 1019(93)	1 st Bn. Durham L.I. 1019(93)
Bearer Co. No. 14. 61.	Bearer Co. No. 1. 61.
⊕	⊕
Field Hospital, No. 14, R.A.M.C. 40.	Field Hospital, No. 8, R.A.M.C. 40.
⊕	⊕

2nd Brigade. Staff - 24.	1st Brigade. Staff - 24.
2 nd Bn. Devon. 1019(93)	2 nd Bn. R. West Surrey 1019(93)
2 nd Bn. E. Surrey 1019(93)	2 nd Bn. West York 1019(93)
Bearer Co. No. 2. 61.	Bearer Co. No. 26 Co., A.S.C. 78.
⊕	⊕
Field Hospital, Depot Co's, R.A.M.C. 40.	Field Hospital, No. 18, R.A.M.C. 40.
⊕	⊕

C Squadron, 14th Hussars.
102.

Brigade Divisional Staff, R.F.A.
17.

79 th Battery. 175.	77 th Battery. 175.	74 th Battery. 175.
⊠	⊠	⊠
	Ammunition Column. 128.	
	⊠	
Field Hospital, No. 7 Co., R.A.M.C. 40.	Regim'l Staff, Div'l Engrs. 7.	Field Hospital, No. 33 Co., A.S.C. 97.
⊕		□

B Squadron, 14th Hussars.
102.

Brigade Divisional Staff, R.F.A.
17.

73 rd Battery. 175.	64 th Battery. 175.	63 rd Battery. 175.
⊠	⊠	⊠
	Ammunition Column. 128.	
	⊠	
Field Hospital, No. 3 Co., R.A.M.C. 40.	Regim'l Staff, Div'l Engrs. 7.	Field Hospital, No. 24 Co., A.S.C. 87.
⊕		□

A Squadron, 14th Hussars.
102.

Brigade Divisional Staff, R.F.A.
17.

66 th Battery. 175.	14 th Battery. 175.	7 th Battery. 175.
⊠	⊠	⊠
	Ammunition Column. 128.	
	⊠	
Field Hospital, No. 19 Co., R.A.M.C. 40.	Regim'l Staff, Div'l Engrs. 7.	Field Hospital, No. 20 Co., A.S.C. 87.
⊕		□

Corps Troops.

5124 (258) officers and men, 51 guns.

13th Hussars.
538(47)

Headquarters, 14th Hussars.
46(47)

Royal Artillery, Regimental Staff.
9.

Brigade Divisional Staff, R.F.A. (Howitzer)
19.

Brigade Staff, R.F.A.
19.

Brigade Divisional Staff, R.H.A.
19.

65 th Howitzer Battery. 199.	61 st Howitzer Battery. 199.	37 th Howitzer Battery. 199.
⊠	⊠	⊠

78 th Battery, R.F.A. 175.	38 th Battery, R.F.A. 175.	4 th Battery, R.F.A. 175.
⊠	⊠	⊠

P Battery, R.H.A. 183.	G Battery, R.H.A. 183.
⊠	⊠

Ammunition Column, Howitzer.
109.

⊠

Ammunition Column, Gun & Small Arms Am.
160.

⊠

Royal Engineers, Regimental Staff.

10 th Railway Co., R.E. 124.	2 nd Balloon Sect. R.E. 35(5)	1 st Balloon Sect. R.E. 35(5)	1 st Field Park, R.E. 26.	26 th Field Co., R.E. 194(60)	1 st Tel. Div., R.E. 171(20)	A (Pontoon) Troop, R.E. 135(20)
□	□	□	□	□	□	□

1st Battalion Royal Scots.
1019(93)

Supply Park, Nos. 4, 29 & 42 Co's, A.S.C. 159.	Field Hosp., No. 5, R.A.M.C. 40.	Field Bakery, No. 40, A.S.C. 217.	No. 21 Co., A.S.C. 76.	Ammunition Park. 274.
□	□	□	□	⊠

The figures in parentheses represent excess numbers to be left at the base.

Army service corps, fifth and twenty-second companies.....	150
Army ordnance corps, half No. 4 company	40
Companies Nos. 14 and 23, western division of Royal Garrison Artillery.....	200
Grand total	5,180

This force of 5,180 men was distributed along the southern and western frontiers of the Orange Free State, guarding the lines of communications from Cape Town to the Orange River railway bridge, De Aar, Naauw Poort, Stormberg, and were holding other points of more or less strategic importance in Cape Colony. There was no field artillery with this force. The British squadron had landed a naval brigade of about 1,000 men, to assist the troops in guarding the frontier.

Besides the regular forces in Cape Colony, there were volunteer forces, the exact strength of which can not be accurately determined. The Cape mounted rifles were approximately 1,000 strong, and the Cape police 2,000, while forty-four volunteer and mounted corps mustered about 7,000.

Mafeking (on the western border of the Transvaal Republic) was held by Colonel Baden-Powell with the protectorate regiment, about 500 strong, and some Bechuanaland police. Colonel Plumer, with the Rhodesian regiment, about 500 strong, held Tuli, on the northern border. These regiments were raised locally by Baden-Powell and his colleagues.

Kimberley, on the western border of the Orange Free State, was held by one-half battalion of the first North Lancashire Infantry, 700 men; volunteers, 1,500 men; artillery, 20 guns.

THE ARMY CORPS.

The mobilized army corps, under Gen. Sir Redvers Buller, which was to be sent to South Africa from England, was organized into three divisions (commanded, respectively, by Lord Methuen, Lieut. Gen. Sir C. F. Clery, Lieut. Gen. Sir W. F. Gatacre), and a cavalry division under Lieut. Gen. J. D. G. French.

The organized first army corps as mobilized at this time is shown graphically, but later many changes were made, due to alterations in the original plans.

NATAL.

Natal is a mountainous country extending between the Indian Ocean on the east and the Drakensberg Range on the

west. The theater of military operations has the general appearance of an equilateral triangle about 90 miles on a side, the northern apex of which is indicated by Charlestown and the base by the Tugela River, which flows from west to east, with an average width of about 85 yards, and passes about 13 miles to the south of Ladysmith. The median of this line is represented by a railroad which starts from Durban, the most important part of Natal, passes through Colenso, Ladysmith, Elandslaagte, Glencoe, Newcastle, Ingogo, the tunnel of Laings Nek and Charlestown, and penetrates into the Transvaal, where it reaches Johannesburg via Volksrust and Standerton. The eastern side of the triangle is formed by the Buffalo River, a tributary of the Tugela River, one part of which serves as a frontier between the Transvaal and Natal.

The western side of the triangle which separates the Orange Free State from Natal is formed by the Drakensberg mountain chain. This chain, rough, rugged, broken by deep abysses and inaccessible summits, traversable only by narrow defiles, easily defended and difficult to cross, forms the eastern boundary of an immense plateau, part of which makes up the Orange Free State and the Transvaal. The principal passages through this chain from the Orange Free State to Natal, going from south to north, are Tintwa Pass, Van Reenens Pass, De Beers Pass, Cundycleugh Pass, Sundays River Pass, Mullers Pass, and Bothas Pass. This section of the triangle is very broken and cut up and well suited for guerilla warfare. The southern part toward Ladysmith is more even.

Natal itself has the appearance of a gigantic stairway which, beginning at the summit of the mountains, descends by immense steps to the sea. These steps, instead of being smooth, are strewn with rocky and abrupt hills of conical shape called "kopjes." Toward the south the descent from one of these steps to the other is more gradual, and near the coast the last ones have an almost imperceptible slope. These plateaus, mounted one above the other, are cut by deep gorges. Rivulets and rivers dash down from the mountains to the sea through beds hollowed out among the rocks. The most important of them all, named the Tugela (the terrible), in places presents the features of a torrent.

Besides the railroad above mentioned, communications are kept up by roads more or less clearly defined. On the coast there are many well-kept roads, and there are some connecting the principal cities. In the interior, paths traced by the heavy wheels of carts and the hoofs of the teams of oxen are the only trails leading from place to place.

Such is, in a general way, the configuration of the terrain upon which the first of the military operations between the British and the Boers took place.

OPENING OF HOSTILITIES.

The Boers had collected at various points just within their frontier, and on October 12 crossed in several columns into British territory. They seemed to be prepared for a simultaneous invasion at five separate and distinct points—Laings Nek, Kimberley, Mafeking, Vryburg, and Lobatsi. At Vryburg a body of Boers had advanced to the railway and cut the telegraph lines. At Mafeking preparations for defense were being pushed, as fears were entertained that the entire concentration of the Boers upon the Natal frontier was but a feint to draw the attention from Mafeking, as the capture of this place would give the burgher forces great prestige with the Afrikanders of Cape Colony. At Kraaipan, south of Mafeking, an armored train was derailed by the Boers, with but one of its complement escaping. Although of no military importance, this event caused great excitement in England, because it was a reverse to the British arms in the first action with the Boers.

The Free State burghers crossed the Orange River into Cape Colony, and occupied Philipstown, with the object of cutting the railway at the De Aar Junction, an important strategic point.

OPERATIONS IN NATAL.

Shortly before the outbreak of hostilities, Gen. Sir George White, who had assumed command of the British troops in Natal, was at Ladysmith with about 9,000 men. General Symons had at Glencoe camp, near Dundee, about 4,000 men charged with repelling any offensive movements on the part of the Boers upon Ladysmith. Generals White and Symons were well covered by patrols, forming a screen destined both to mask from the enemy's view the dispositions of the British

troops and to give timely warning of the advance of the Boer forces.

The Boers had almost completed their advance march on the frontier during the first week of October. The Transvaal burghers were stationed in three groups surrounding the northern part of Natal: at the Bothas Pass (Villjoen), at Vryheid (Lucas Meyer), and the main column at Volksrust (Joubert). The Free Staters had their main forces under Grobler at Harrismith.

The advance of the main units was directed toward Natal; the largest and strongest group of the Boers was there. It was also easiest and quickest to advance upon Natal, two railway lines (Bethlehem-Harrismith and Pretoria-Volksrust) running in that direction. Moreover, the terrain of this country was very favorable to the mode of fighting of the Boers.

All the passes leading to Natal and the fords on the Buffalo River were in the hands of the Boers. These passes were filled with men and wagons awaiting the signal to advance some days before the actual outbreak of hostilities.

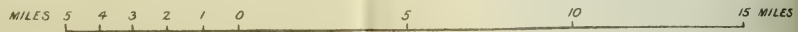
On October 12 the Transvaal troops began their march in three columns and began to close in on General White's forces. Villjoen advanced through the Bothas Pass with about 1,500 men in the direction of Elandslaagte. Lucas Meyer crossed the Buffalo River at De Jagers Drift with about 2,000 men. The main column, under Joubert, entered through Laings Nek and moved along the railroad toward Newcastle. They met with no resistance, as the British fell back before them, abandoning both Charlestown and Newcastle.

The Transvaal troops advanced very cautiously—too cautiously, from a strategic point of view. A whole week passed before they came in touch, on October 19, with the advanced detachment of the Glencoe camp, commanded by General Symons.

Villjoen alone marched quickly. On the 19th he had reached the railroad line, Ladysmith-Glencoe, between the two British forces, where he captured a train loaded with provisions and destroyed the railroad at Elandslaagte. The communications between Ladysmith and Glencoe were from this time on interrupted and telegrams could only be sent via Greytown. A few days before, General White had brought over to his column part of the forces from Glencoe by means of railway transportation. This half-measure was useless, as the danger



Scale 250,000 or 1 inch to 3.94 miles.



threatening the advanced group had increased while the Ladysmith forces had not been strengthened to such a point that White might consider himself to have any superiority over the Boers.

The main Boer column, under Erasmus (about 9,000 strong), reached Ingagani on the 16th and on the 19th he marched toward Dundee. General Joubert at this time was with the column, but its actual commander was General Erasmus.

Lucas Meyer had been ordered to attack Dundee from the east, and on the night of October 19 he succeeded in planting six guns on Talana Hill, and at 5.30 a. m. on the 20th opened up on the British forces with his guns.

On the 17th of October the Boers of the Orange Free State, who had entered Natal in three columns through Van Reenens, Tintwa, and Bezuidenhout passes, had their right at Acton Homes, their center at Blaauwbank, and their left at Besters Station. On the 18th a skirmish took place between the Natal carbineers and a party of Boers at Besters Station. The carbineers were obliged to retreat to Ladysmith, abandoning their position to the Boers' superior numbers.

The plan of the Boers was evidently to tear up the railway between Ladysmith and Glencoe; then to sally out with the forces of the Orange Free State through the Van Reenens and Tintwa passes to threaten Ladysmith from the west, thus preventing White from going to the relief of General Symons at Glencoe; finally to throw, simultaneously, two columns upon the British troops gathered together at the camp stationed at the north of the railroad line connecting Dundee with Glencoe and overcome them by numbers. This plan was well conceived, but it only partially succeeded, through a lack of unity of action between the commanders of the two columns under General Erasmus and General Lucas Meyer.

The garrison of Ladysmith was held in check by a strong detachment of Boers which poured into Natal by the above-mentioned passes, the railroad was destroyed at Elandslaagte by Villjoen, and Glencoe was attacked on the morning of the 20th of October by a column coming from the northeast under Lucas Meyer; but the principal corps of the Boers, under Erasmus, coming from Newcastle, did not arrive in time to assist, and, due to this, Glencoe was not subjected to a disastrous attack. An example of the ineffectiveness of converging columns unless accurate timing is insured by the

maintenance of continuous communication was strikingly illustrated in this instance. General Joubert reported to his Government that his plan had miscarried, owing to Erasmus having been like Grouchy at Waterloo—too late. For this reason the British had but one column to deal with at the battle of Dundee.

Immediately after the two armies had come in contact a hard fight took place at Dundee. The column of Lucas Meyer drove back the outposts of Symons to the east of Dundee and on the morning of the 20th, as has been mentioned, commenced dropping shells into the British camp from Talana Hill. Having learned that only one Boer column was before him, Symons led his troops in an attack upon Talana Hill, which was courageously held by the Boers. After a stubborn engagement, in which the British lost 143 killed and wounded and 331 captured or missing, the Boer position was carried. General Symons was mortally wounded and General Yule assumed command. The Boer loss can not be determined, but was estimated by the British to be about 300. At the time this was called a great victory by the British, but it was not so in reality, for very shortly afterwards they were forced to abandon the position they had taken and to leave their wounded in the hands of the defeated Boers. One squadron of the Eighteenth Hussars and some mounted infantry sent in pursuit of the retreating Boers were entrapped and taken prisoners.

Yule's forces, minus the captured cavalry, had scarcely returned to camp when they found themselves under fire from the heavy guns of Joubert's and Erasmus's columns, which had planted some heavy guns on Impate Hill. Yule shifted his camp so as to try to get a better position, but scarcely had it again been pitched when shells from two different directions began to drop among his troops. A reconnoissance showed that the railway was barred behind his forces, and on the 23d Yule abandoned his stores and wounded at Dundee, and commenced his retreat over the mountains east of the railway, effecting a junction with General White's forces at Ladysmith on the 25th.

Meanwhile General White, realizing that the presence of the Boers at Elandslaagte cut off his communications with Dundee and Glencoe, where the forces under Symons might at any moment be sorely pressed, advanced, and attacked a

part of Villjoen's column, under General Kock, at that place on the 21st. After a hard battle the Boers were driven from their position with a loss, estimated by the British to be about 400 men, including their leader, General Kock. The British lost 254 killed and wounded.

This successful attack of White's to reopen communications with Glencoe was very risky but necessary. There were scarcely 3,000 men in Ladysmith on the 21st. Had the Free Staters taken advantage of their position and attacked; had Villjoen, instead of marching with his main forces against Glencoe, followed his advance guard to Elandslaagte, the Natal forces might have been beaten in three separate groups and thus entirely defeated on the 22d and 23d. Here also was to be seen a lack of joint action, of a strong inner union and of a well-organized service of information and transmission of orders in the Boer forces.

Although communication with Glencoe was not reestablished, the Boers were severely beaten and weakened, and it was probably the knowledge that General Yule was about to retire by another route that prevented General White from following up his victory at Elandslaagte. On the other hand, it gave the Boer columns more time to complete their strategic plans and concentric march.

On the 23d of October General White learned that a number of Orange Free State Boers, coming from near Besters Station, had occupied a very strong position to the west of the Glencoe-Ladysmith railroad. He had also been informed that the column of General Yule, retreating upon Ladysmith, would reach the valley about the 24th. He decided to attack immediately the Boer position in order to cover the retreat of General Yule, and on the 24, at daybreak, he proceeded in the direction of Elandslaagte with an approximate force of 4,500. This force encountered the Boers (some 1,500 strong) at Reitfontein about 7 o'clock in the morning. Toward mid-day White learned that the column of Yule had crossed the defiles of Biggarsberg and had reached the plains in safety. Judging, then, that his object had been attained, he ordered his troops to fall back gradually on Ladysmith. In this action the British lost 116 killed and wounded; the loss of the Boers was placed by the British at about 230.

Far from being discouraged by this triple victory of the British, the Boers continued to advance, tightening their

cordon about White's forces at Ladysmith; the three columns which had driven Yule from Glencoe were closing in on Ladysmith from the north and northeast. On the 26-27 the main forces of the Transvaal Boers, under Joubert, were on the commanding hills north, and those of Lucas Meyer and Erasmus on the north and east of the city. The Boers of the Orange Free State combined with those of Joubert in investing Ladysmith; their forces had advanced rather close to Ladysmith and were threatening White from the west. General White tried to entice the Free Staters into an action before the Transvaal Boers could come in line with them, but they were cautious and he failed. On the 29th the two Boer armies were in line and their concentric march was completed.

The Boer forces had so maneuvered as to invest the city in the form of a semicircle to the north, but the south was left open. The exact strength of these forces concentrated about Ladysmith is unknown; taken from British sources, they are estimated at about 19,000 men and 40 guns (including six 40-pounders). These forces threw up breastworks and put their batteries in position. By the 29th the Boers had planted heavy guns on Pepworth Hill (about 4,500 yards from the British lines), Lombards Kop and Isimbulwhana Hill, from which position they, during the subsequent investment, could fire into White's lines.

General White learned that the Boers were strongly intrenching the commanding hills about the British position. He determined to make an effort to drive the Boers from Isimbulwhana Hill and, if possible, scatter and overwhelm the forces in the north, consisting chiefly of Free Staters. For this purpose he ordered two regiments and a mountain battery to proceed secretly by night to Nicholsons Nek, a point on the rear of the Free Staters' flank, while with the bulk of his forces he marched also by night with his center directed upon Isimbulwhana Hill and his right advancing upon the Nelthorpe Road. The two regiments had not proceeded more than halfway to Nicholsons Nek when their mules, with the mountain guns and the small-arm ammunition, were stampeded by a party of Boers and they were compelled to halt; soon after the troops took up an indefensible position where they were eventually, after several hours' hard fighting, compelled to surrender. This is called the battle of Nicholsons Nek. In the meantime White's center lost touch with his right. The

latter became severely engaged, and White, with his center, hastened back to its assistance. He then returned under a very heavy fire with considerable loss, and had it not been for the opportune arrival of a naval contingent with heavy guns serious consequences might have been the result. This was called the battle of Farquhars Farm. The British lost in these two engagements 316 killed and wounded, 968 taken prisoners or missing, 5 guns, and the entire train and ammunition column captured. These disasters, for which General White honorably assumed all responsibility, made a great impression in England. It was an incentive to renewed exertions.

On the 2d of November General French (later Roberts's able cavalry leader) escaped on the last train out of Ladysmith to Durban. At 2.30 p. m. on this day the railway and telegraph lines were cut and a complete investment of the place was effected. White, however, remained in communication with the outside world by means of homing pigeons, Kaffir couriers, and, later on, by means of the heliograph.

On the 3d of November a second attempt was made to push back the Boer lines. Colonel Murray with 3,000 men, including the greater part of the cavalry and several batteries, succeeded in breaking through the Boer lines and escaped to Estcourt. From this time on Ladysmith remained invested with desultory fighting until relieved on February 28, 1900. The results of White's defensive campaign were: Abandonment of the northern part of Natal, the isolation of Ladysmith and its garrison of 7,000 British troops, a great moral effect upon the Boers and Afrikanders of Cape Colony, and a material loss of some 2,000 British troops in killed, wounded, captured, and missing.

OPERATIONS ALONG THE SOUTHERN AND WESTERN BORDERS.

Just previous to the outbreak of hostilities, as has been mentioned, the commandos of the Orange Free State and of the South African Republic were stationed along their southern and western frontiers, awaiting the signal to push forward into British territory. These commandos were stationed principally at points opposite Mafeking, Vryburg, Kimberley, Hopetown, Colesberg, and Burghersdorp. At the expiration of the time set by the ultimatum, they crossed the borders, their plan evidently being to isolate and invest Mafeking and

Kimberley and, if possible, gain possession of them. By the 15th of October the investment of the two last-mentioned places was an accomplished fact.

At the beginning of November the Free Staters invaded Cape Colony in three columns: The right column (about 2,000 men) moved upon De Aar; the center (about 1,000 men) took up the march toward Middelburg via the Colesberg-Naauw Poort railway line; the left column (about 3,000 men) crossed at Bethulie Bridge with Queenstown and Port Elizabeth, via Burghersdorp and Stormberg, as objective points. A reserve of 4,000 men with field guns remained at Bethulie ready to reenforce any one of the above-mentioned columns should it be sorely pressed. Such was the situation in Cape Colony in the middle of November when the troops of the first army corps, under Gen. Sir Redvers Buller, commenced to arrive.

GENERAL BULLER'S PLAN OF CAMPAIGN.

The British plan of campaign in the beginning was to land the troops of the newly arrived army corps at the starting points of the three cape railway lines, viz., at Cape Town, Port Elizabeth, and East London. These lines of transportation were to be used to advance to the south of the Orange River and to invade the Orange Free State in three columns which should be in touch with each other. An advance upon Bloemfontein could then be made and either the alliance of the Boer Republics might be broken or the retreat of the Boer troops from Natal effected. The latter actually took place three months later when Lord Roberts advanced through this part of the country. At any rate, a change of the theater of war from Natal, so favorable to Boer tactics, to the more open plains between the Orange River and the Vaal would have been no small advantage from a military standpoint.

The unrest in the north of Cape Colony, and the besieged cities of Ladysmith and Kimberley, caused a change in the plan of campaign. Political considerations demanded that these cities should not under any circumstances fall into the hands of the Boers.

The original plan of concentrating the entire army corps in Cape Colony was changed and orders were issued that certain of the transports should proceed to Durban and that the troops upon them should disembark there. General Buller formed his forces in three main columns. The right, commanded by

General Clery, was directed upon Pietermaritzburg and was to go to the relief of Ladysmith; the central, under General Gatacre, formed at Queenstown to check the invasion of Cape Colony and the march upon Stormberg; the left, under Lord Methuen, was to relieve Kimberley. General French was to take command of the cavalry division and operate between the columns of Gatacre and Methuen, with Naauw Poort as its center of operations. General Buller himself took immediate charge of the Ladysmith relief forces.

OPERATIONS ON SOUTHERN AND WESTERN BORDERS.

The approximate distance by rail from Cape Town to the Orange River (Lord Methuen's base of operations) is 550 miles. As many of the Afrikanders were in sympathy with the Boers, it was necessary to maintain surveillance over this line, not only by occupying all the stations, but also by placing posts of observation at numerous intervening points. In order to secure that section of the road comprised in the sector including Cape Town, De Aar, Naauw Poort, Port Elizabeth (linear length of about 800 miles) some 10,000 men were needed. Part of this service was maintained by a corps of the Colonial volunteers and part by Kaffirs. This left a few more of the regular troops for the military operations. At intervals of about 250 yards were stationed posts *à la cosaque*.

The security of the railways having been thus provided for, the main body of the troops were sent by train to the Orange River; Methuen himself had arrived there by November 12. On the 19th of November the forces there assembled comprised:

- Ninth Lancers.
- Two batteries of field artillery.
- Four battalions of the guard brigade.
- Three battalions of the ninth brigade.
- Billington's scouts.
- Naval brigade with four guns.

Upon his arrival at the Orange River, Methuen made preparations for pushing forward to the relief of Kimberley. By the 20th the final preparations had been made, and on the 21st an advance along the railroad was taken up. On November 23 Methuen encountered 2,500 Boers with two

guns, under Cronje, at Belmont. In the action which followed, the Boers were driven back after inflicting upon the British a loss of 298 officers and men, killed and wounded. According to the British, the losses of the Boers reached as high as 140 killed and wounded, plus about 40 prisoners, but the Boers claim to have lost only 12 killed, 40 wounded, and a few prisoners.

Methuen reports of the battle of Belmont that part of his forces lost their way in their before-daybreak march and he found himself committed to a frontal attack, and that had daylight appeared before reaching the Boer position the losses would have been doubled. "My losses," he continues, "are no greater than are to be expected; to keep in extended order, covering an enormous front, to get to the enemy's position at daybreak, saves you in the first instance from flanking fire, and in the second from great losses in the plain. There is far too great risk of failure in making flank and front attack in the case of a position such as lay before me at Belmont; the very first element of success is to keep touch between brigades from the first. Nor is there any question of taking the enemy in flank, as on horses he changes front in fifteen minutes, as will be shown in my next fight."

In this engagement the officers, in compliance with the orders of General Buller, had taken off the insignia of their rank and adopted a uniform very much like that of a private soldier. A Boer, wounded in this battle, said "Twenty expert shots in each section had been detailed especially to fire upon the officers and noncommissioned officers, but, as they all wore the same uniform as the soldiers and had removed their insignia of rank, it was impossible, as the column approached, to distinguish the one from the other, and therefore the order was not executed."

On the 25th Methuen found his advance again blocked near Enslin by about 2,500 Boers. The battle of Enslin or Gras Pan, which followed was also a victory for the British. According to the British estimate, 400 Boers were rendered *hors de combat*, including a few prisoners taken. The British loss was 194 killed, wounded, and missing.

After the battle of Enslin, Methuen allowed his troops to rest a day before again taking up his forward movement upon Kimberley. On the 28th he encountered Cronje's forces, which had been reenforced to about 8,000 men and 10 guns. These

forces were strongly intrenched near the village of Modder River, on the banks of the Riet River. Methuen had been informed that the Boers would not defend the Riet River, but that they were in position at Spytfontein, some miles farther on, where a stand would be made. The British reconnoissance had failed to locate the Boer position and without warning a heavy fire was poured into the former's ranks. The battle of Modder River, which followed, was so named from the village of that name and not from the stream. After repeated attempts to cross the river had been repulsed by the Boers, a small British force succeeded in gaining a foothold. Darkness coming on brought a lull to the battle and in the night the Boers evacuated their position and withdrew toward Jacobsdal. The British lost 483 killed and wounded in this battle. The Boer loss as usual, it is impossible to determine, but they claim to have suffered but little.

A correspondent of the *Army and Navy Gazette*, evidently a British Naval surgeon, writing of this battle says:

The wounds produced by the Mauser bullets are all that could be desired, the entrance and exit are practically of the same size, and very minute. Most of the patients make an uninterrupted recovery. It is a much more humane bullet than our own Lee-Metford, for two reasons; its caliber is less and its velocity is considerably higher. I must have seen some thousand bullet wounds by now, including those I saw in the Filipino-American campaign. * * * My experience has led me to the conclusion that those wounds which heal up most rapidly and give the least trouble are wounds produced by bullets having the same characteristics: (1) A very high velocity; (2) a flat trajectory, so that they hit apex first and do not keyhole; (3) a hard, smooth sheath with a smooth, rounded apex; (4) a close range, for the same reason as (2), a bullet at a long range may hit the object side on.

If I were to tabulate these missiles in the order in which the wounds produced by them were progressively more serious from above downward, the table would read something as follows: (1) Mauser; (2) Krag-Jorgensen; (3) Lee-Metford; (4) Man-stopping Lee-Metford (hollow-headed nickel-sheathed); (5) any of the first three with the nickel-sheaths around the apex removed so that the lead nucleus is exposed; (6) dumdum; (7) Remington brass-coated as used by the Filipinos; (8) Remington lead bullets or the Martini-Henry; (9) Remington brass bullets with brass sheathing removed so as to expose the lead nucleus; (10) shrapnel bullets; (11) shell or their fragments. Explosive bullets I have had no acquaintance with.

It was not until the 10th of December that Methuen was again able to advance. He had to rest and reenforce his men, to prepare the line up to the Riet River, to bridge that river

and to secure his line of communications which the Boers had begun to threaten. This delay enabled the Boers to improve their fortification at Magersfontein by extending a line of intrenchments solidly made and protected by wire fencing all along the line of hills running in front of their position. These Boer forces were under Cronje and consisted of about 6,000 men and 13 guns. Methuen's column had been reinforced until it consisted of $11\frac{1}{2}$ battalions, 6 squadrons, 5 batteries, 1 battalion mounted infantry, 1 naval brigade, 1 naval battery (5 guns), and 1,000 volunteers, making a total of about 13,000 men and 35 guns.

On the 10th of December Methuen shelled the Boer position at Magersfontein, and at 12.30 a. m. of the 11th the Highland brigade, commanded by General Wauchope, was sent to surprise the Boers at dawn as a preliminary to a general attack. Assisted by ropes to keep from losing their positions in the darkness, the battalions were marching in mass formation, quite unaware of their proximity to the Boer lines, when they were thrown into confusion by the bushes and fencing. Immediately, and before they could deploy, a terrific rifle fire at close range was poured into them, killing General Wauchope and a large proportion of officers and men. The whole attack was disorganized. Some pressed on and after brave fighting were killed or made prisoners. The rest lay down and, as at Modder River, had to remain for a long time in that position. At daylight a general attack was made but failed and those who took part in the night attack were rescued only by heroic exertions and after heavy losses. A heavy cannonade closed the proceedings under the cover of which the British forces began their retreat, falling back again to Modder River. The Boers report a loss to themselves of 219 men in this battle. The British loss was 970 officers and men killed, wounded, and captured, or approximately 10 per cent of the troops engaged.

This battle seems to justify Capt. Otto Berndt of the Austrian army, when, in his well-known "Die Zahl in Krieg" (the number in war), he writes:

In saying that the probable losses of an army in battles of the future would not exceed 20 per cent, it is understood that we have not wished by these words to intimate that certain units would not, more than formerly, be exposed to a much greater sacrifice than this percentage of losses. As in the past, in particular cases, certain units will always be sorely tried and, in this way, the repeating rifles, rapid-firing guns, etc., will produce,

perhaps oftener than before, veritable hecatombs of human victims on some parts of the battlefield.

One can well understand that, when decimated in the twinkling of an eye, troops become demoralized and are more affected than if they incur the same losses slowly and gradually.

In the battles of the future the repeating rifles and rapid-firing guns may act suddenly and more frequently in producing terrible ravages. Yet, after all, they will not increase the average per cent of losses, for it is because the victims fall all at once and instantly at certain parts of the field that the effect will be more shocking and decisive than if a larger number of men had fallen one by one.

The "Revue du Cercle Militaire," commenting on this subject, says:

This was, indeed, the fact at Magersfontein, where the Highlanders' brigade lost 25.4 per cent of its men in ten minutes and was demoralized for the rest of the day. One may say that from this moment the battle was lost for the British. The battle then was decided in ten minutes.

The Methuen division had lost more than 2,000 men in the four battles of Belmont, Gras Pan, Modder River, and Magersfontein, and the relief of Kimberley was far from an accomplished fact. With the exception of a few skirmishes and some unimportant attempts to cut the communications of the British, both parties remained inactive for some time. This was taken advantage of by the Boers in fortifying their position and replenishing their stores at Jacobsdal; the British improved their railway communications, repaired the permanent bridge at Modder River, and were reorganizing their forces and waiting for reenforcements.

THE GATACRE COLUMN.

General Gatacre's troops were concentrated at Queenstown. To this general was assigned the task of acting in concert with the forces of General French operating on his left. These columns of Gatacre and French were to drive the invading Boer forces back from the advanced positions they had taken up in Cape Colony. Instead of a complete division, Gatacre had scarcely more than a brigade at his disposition at this time. The main efforts of the British seemed to be especially directed toward the reliefs of Kimberley and Ladysmith. For this reason the greater part of the forces intended at first for Generals Gatacre and French were instead sent either to the Tugela or to Modder River.

In the middle of November Gatacre's forces consisted of :

- Second battalion Royal Irish Rifles.
- Second battalion Berkshire (part only).
- Some mounted infantry.
- Second battalion Northumberland Fusiliers (arrived later).
- Second battalion Royal Scots Fusiliers (arrived later).

On the 5th of December these were reenforced by :

- Seventy-fourth and seventy-fifth mounted batteries.
- Twelfth company field engineers.

On December 8, when General Gatacre determined to take the offensive, the grand total of his forces could scarcely have exceeded 3,500 men. This included some Cape Colony police, Kaffrarian rifles, and Brabant's Horse (irregular volunteer cavalry).

On November 22 Gatacre established his camp at Putters Kraal. On the 24th he occupied Sterkstroom with 200 of the Brabant Horse and one company of the Kaffrarian rifles. On the 27th he established another advance post at Bushmans Hoek with 800 men. The two advanced posts were in communication with the main camp at Putters Kraal by telegraph and heliograph, and it was here that Gatacre awaited reinforcements. He had garrisoned Queenstown with 1,100 men in order to protect his rear. This left him with scarcely 2,500 men for field service.

On the 8th of December the approximate disposition of the Boers opposed to Gatacre was: 800 men at Dordrecht; 700 men between Dordrecht and Jamestown; 1,500 at Stormberg; 400 at Molteno, and one commando at Steynsburg on the Stormberg-Middelburg railway. On this day Gatacre decided to press forward in order to take Stormberg by surprise and to stop the movement of rebellion which seemed to be rising among the Afrikanders of Cape Colony, and also in order to take possession of the Stormberg-Middelburg railway; this would enable him to communicate directly with French's column. On December 9 at 4 p. m., the column, consisting of 2,500 men and two horse batteries, embarked at Putters Kraal by rail for Molteno, and marched thence by night toward Stormberg ($8\frac{1}{2}$ miles distant) with the intention of surprising the Boers, where they were reported to be about 1,700 strong. The exact location of the Boers being unknown and their position not having been fully reconnoitered, dependence was placed upon guides who, intentionally or on account

of the dark night, led his column astray. On the morning of the 10th, after marching 6 or 7 miles farther than he should have done by the maps, Gatacre found daylight approaching and himself under fire in an untenable position which, nevertheless, he tried to hold. Gatacre had hoped to surprise the Boers; instead he found himself surprised. The British beat a hasty retreat under cover of their artillery. These batteries rendered most efficient service, and it was largely due to them that the exhausted and defeated column was not subjected to much heavier losses. The Boers did not follow up their victory, although they captured over 600 prisoners who could not fall back from their advanced position. The British lost 89 killed and wounded, about 633 prisoners, and 2 guns. The Boer loss was very small. This is known as the battle of Stormberg.

After the Stormberg disaster the troops of General Gatacre retreated as far as Bushmans Hoek, and on December 12 the entire column again fell back as far as Sterkstroom. His forces were too much reduced to resume the offensive, and he was compelled to remain passively on the defensive until the end of the year.

This defeat of the central column endangered the further advance of Methuen or Buller, and the difficulties attending the holding of the railroad to De Aar by French were greatly increased.

FRENCH'S COLUMN.

General French, who had escaped from Ladysmith on November 2, was assigned to the command of a cavalry division in Cape Colony. The forces intended for him were reduced in numbers for the same reasons as were those of Gatacre, and at first he had scarcely more than a brigade at his disposition. On November 20 the troops intended for him began to arrive, and by the middle of December his column was composed of the following:

- Sixth Dragoon Guards.
- Sixth Inniskilling Dragoons.
- Tenth Hussars.
- New South Wales Lancers.
- 200 mounted New Zealanders.
- Horse batteries O and R.
- Some mounted infantry.

On November 21 French reoccupied Naauw Poort, which had just been evacuated by the advanced posts of the Boers. Until the end of the year 1899 his column, which had its base of operations between Arundel and Naauw Poort, confined itself to making occasional reconnoissances and holding in check the Boer detachments which were trying to isolate it by cutting the De Aar-Naauw Port Railroad or that of Naauw Poort to Stormberg.

MAFEKING AND KIMBERLEY.

The Boers were continuing their siege of Kimberley and Mafeking, and attempts to relieve the latter place by the force under Colonel Plumer were, so far, unsuccessful. Skirmishes between besiegers and besieged were of common occurrence.

OPERATIONS IN NATAL.

After the attempt of White to push back the Boer lines on November 3, General Joubert, learning that reinforcements of the first army corps were very soon to arrive at Durban, advanced his forces toward the south to cut off and fall upon the foremost British groups along the railroad, and to push forward to prevent Buller from raising the siege of Ladysmith. Leaving behind only the troops absolutely necessary to continue the investment of that city, he formed his forces into three columns: One to reinforce the Boer troops at Colenso and advance west of the railroad; the two others to advance upon Weenen and Greytown, respectively. The probable plan of General Joubert was to then make a concentric march of his columns upon Pietermaritzburg. At the same time a smaller Boer corps crossed the lower Tugela and was threatening the British communications between Pietermaritzburg and Durban.

The plans of Joubert were interfered with by the arrival at Estcourt of reinforcements under General Hildyard. As a result of the arrangements made by the British, General Botha's corps (reported to be 7,000 strong) was halted; the Boer corps originally at Colenso advanced west of the railroad via Ulandi-Courton against the left flank of the British; the corps moving via Weenen against the British left flank changed its objective to the British right flank; the corps advancing via Greytown was evidently to take up position at

<p>THE SOUTHERN RAILWAY COMPANY</p> <p>MEMORANDUM</p> <p>DATE: _____</p> <p>TO: _____</p> <p>FROM: _____</p> <p>SUBJECT: _____</p>											
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THE SOUTHERN RAILWAY COMPANY

MEMORANDUM

DATE: _____

TO: _____

FROM: _____

SUBJECT: _____

THE SOUTH NATAL FIELD FORCE.

(LadySmith Relief Corps)

Actual Commander, Gen. Buller: Nominal Commander, Gen. Clerly.

5th Division (Warren) ^a		3rd Division (without Commander) ¹			2nd Division (Clerly)		
10th Brigade (Coke) ^{††}		6th Brigade (Barton)	5th Brigade (Hart)		4th Brigade (Lytelton) ^{**}		
I █ South Lancashire	II █ Middlesex	II █ Scot. Fusiliers	I █ Cannought Rangers	I █ Immiscilling Fusiliers	III █ Kings Royal Rifle Corps	II █ Devonshire	
II █ Bedfords ^{††}	II █ Somerset Light Infantry ^{††}	I █ Irish Fusiliers	I █ Border	I █ R. Dublin Fusiliers	I █ Rifle Brigade	II █ East Surrey	
I █ Thornycrofts Mounted Infantry	I █ South African Light Horse	I █ Imp. Light Horse	I █ Natal Carbineers	I █ I Co. Mid Inf. R Dub Fusiliers	I █ 14th Lancers	II █ West Surrey	
II █ Bethunes Mounted Infantry	II █ 12 12-pounder guns	II █ 2 4.7-inch naval guns	CAVALRY.				II █ 1st Dragoons
No 4 Mountain Battery	II █ No 4 Mountain Battery	II █ 6th Howitzer	ARTILLERY.				II █ 66th 14th Regt
Balloon Detachment	II █ 45th Steu. Road Transport Company	II █ 17th Field Company	ENGINEERS.				II █ Pontoon Troop ^{††}

^a Reached the front on Jan. 9. ^{**} Name given on in the official reports from the field. ^{††} Actual leader, Lieut. Gen. Gatacre. [‡] Only two battalions of this Brigade present. Somerset attached only.

Note: The strength of the various units on a war footing is approximately as follows: a regiment of cavalry 610; a battery of artillery, horse 180, Field 170 (companies of garrison artillery very considerably, but may be taken to average 150); the siege train batteries are, however, very largely augmented; a company of Royal Engineers 210; a battalion of infantry 1,010; and a company army service corps 140.

Pietermaritzburg in order to cover the investment of Estcourt. The corps which had crossed the lower Tugela contented itself with threatening the communications between Pietermaritzburg and Durban. It seemed as though the Boers had executed against Estcourt the plan they had originally intended to carry out against Pietermaritzburg. A force of Boers occupied Highlands Station (south of Estcourt), thus completely isolating Hildyard's forces. General Barton, having with him part of his brigade (the sixth) and some volunteer corps, was cut off and surrounded at Weston by Joubert's forces. On the 21st, Hildyard, in order both to effect a junction with Barton's forces and to preserve his own communications, attempted to break through the Boer lines of investment. Here he fought the action of Willow Grange on the 23d. In this, he was at first successful, but later the Boers rallied, took the offensive and forced the British to evacuate the position they had taken. Hildyard fell back to Estcourt. The British lost 78 killed and wounded and 9 prisoners. The Boer loss is placed by the British at 30 killed and 100 wounded.

An unexpected change was now made in the plans and movements of the Boers. Joubert, having learned of the arrival of reinforcements at Pietermaritzburg, suddenly gave up the offensive rôle and ordered his forces to retire northward toward the Tugela, there to occupy the strong positions where they could block the British in their attempts to relieve Ladysmith.

Hildyard and Barton, thus relieved, effected a junction and advanced toward Frere; the Boers retired to Colenso.

By November 28, the troops of the First Army Corps, intended for the relief of Ladysmith, had been disembarked at Durban and the greater part had proceeded to the camp at Chieveley, about 6 miles from Colenso, where the field forces were concentrated. Although the nominal command of the Natal field forces was under General Clery, General Buller assumed personal charge and directed the operations. His field forces numbered about 19,000 men and 52 guns, made up as shown on the diagram.

On the 15th of December Buller advanced from Chieveley Ridge (about $2\frac{1}{2}$ miles north of Chieveley) to force the crossing of the Tugela and to push on to the relief of White's beleaguered garrison at Ladysmith. The battle of Colenso, which followed, was a frontal attack pure and simple; it

was a repetition of Modder River and Magersfontein, and, like them, resulted in very heavy losses to the British without attaining the object sought.

In his official account of the battle, Buller reports: "Colenso Bridge is the center of a semicircle surrounded by hills, the crests of which dominate it about 1,400 feet at a distance of about $4\frac{1}{2}$ miles.

"Near the bridge are four small lozenge-shaped, steep-sided, hog-backed hills, each, as it is farther from the river, being higher and longer than the next inner one. These hills, the first of which is known as Fort Wylie, were very strongly entrenched with well-built, rough stone walls along every crest line that offered; in some cases there were as many as three tiers. It was a very awkward position to attack, but I thought that if I could effect a lodgment under cover of Fort Wylie, the other hills would, to a great extent, mask each other, and shell fire and want of water would clear them out in time."

To add to the difficulties of such an attack, the Tugela River at this place and time was some 100 feet wide and 7 feet deep, and had to be crossed before the main Boer works could be reached. Both fords and the bridge were commanded by Boer intrenchments. The remaining bridge had been destroyed. To reach the bridge, over 7,000 yards of a fire-swept plain which afforded no cover whatsoever had to be crossed by the attacking force. The entire British advance up to the river was commanded by a series of ridges or kopjes on the northern bank, having the form of a semicircle, with a radius of about 8 miles, Colenso village being in the center. All these ridges and kopjes were intrenched, and upon many of them the Boers had planted guns. Although the principal Boer position was on the northern bank of the river, they also occupied the southern bank east of the railroad, resting their left flank upon Hlangwane Hill, an isolated hill, which took in flank any movement upon Colenso.

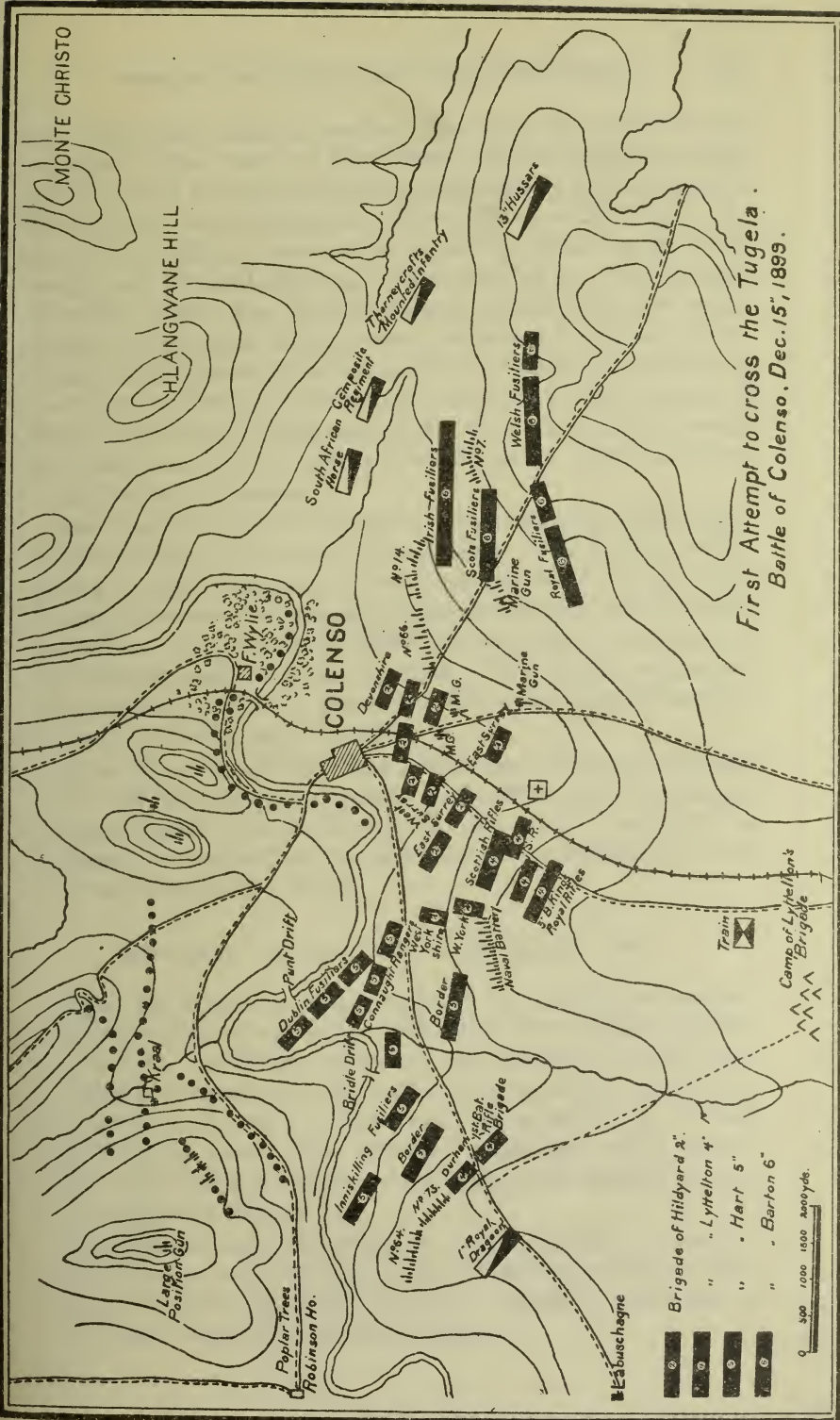
The British force advanced from Chieveley Ridge in two main columns, one of which was to attempt to cross the ford on the British left, the other to move in the direction of and across the wagon-road bridge and gain possession of the hills on the northern bank of the river. A third body, consisting chiefly of cavalry, advanced on the right to menace Hlangwane

MONTE CHRISTO

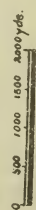
HLANGWANE HILL

COLENOSO

First Attempt to cross the Tugela.
Battle of Colenso, Dec. 15, 1899.



- ⊙ Brigades of Hildyard &c.
- ⊙ " Lyttelton 4"
- ⊙ " Hart 5"
- ⊙ " Barlon 6"



Hill. The left column reached the river, but where they expected to find the ford there were 7 feet of water, and the few who tried to cross the stream, weighted by their arms and ammunition, were drowned. When well involved this column was suddenly assailed by a terrific rifle fire at short range, and General Buller at once recalled it. The attack upon the bridge was likewise unsuccessful, and after eight hours of fighting the British were compelled to retreat, abandoning to the Boers prisoners and ten of their guns which it had been impossible to withdraw on account of the cross fire from the front and Hlangwane Hill. The whole British army fell back from the line of Boer intrenchments. This is known as the battle of Colenso.

The total British forces engaged numbered some 18,000 men, 36 field artillery guns, and 6 naval guns. The Boers participating in this engagement were commanded by Botha and, according to their reports, numbered about 2,000. The British lost in this engagement 897 killed and wounded, 228 prisoners and missing, and 10 guns captured. The British estimated the Boer loss to be very great, but the latter report that they lost only 30 killed and wounded.

After this defeat Buller was compelled, for a time at least, to put off his efforts to relieve Ladysmith, and he awaited reinforcements. Until the close of the year it was quite as necessary to suspend active operations in this theater of war as it had been in the others.

SITUATION AT THE END OF DECEMBER, 1899.

After the series of defeats suffered by the British armies, Gatacre at Stormberg on the 10th, Methuen at Magersfontein on the 11th, and Buller at Colenso on the 15th of December, a period of comparative inactivity followed all along the line. The week of this triple defeat was often called the "black week" by the press. The "Times," alluding to this period, says: "The curtain rises on a sad week, and one of the worst in our military history."

The British took advantage of this inactivity to reenforce themselves, to build bridges, and to organize trains to enable them to be less dependent upon the railroads; the Boers, to fortify and strengthen their positions.

At the end of the year the British had slightly more than 100,000 troops in South Africa. They were distributed along the entire front from Modder River on the left to Chieveley on the right, situated about as follows:

On the extreme left, the Kimberley relief force under Methuen intrenched at Modder River, where he had retired after the battle of Magersfontein; his forces numbered about 14,000 men and 38 guns, and on his line of communication south were forces at Witteputs Station, Belmont, Enslin, Orange River, and De Aar, numbering in all about 6,000 men. Methuen's force was opposed by Cronje, who was occupying a fortified position at Spytfontein-Magersfontein.

In the center, French, in the vicinity of Naauw Poort with about 900 cavalry, 3,000 infantry, and two horse batteries; Gatacre at Sterkstroom and immediate vicinity with 2,500 infantry, 1,000 mounted infantry (volunteers), and 26 guns. Port Elizabeth and East London were held as bases of supply for Naauw Poort and Sterkstroom, and the main lines of railroad were each guarded by about 2,000 men, mostly volunteers. The railroad between Rosmead Junction and Stormberg had been cut and could not, at this time, be used.

On the right, in Natal, Buller had at Chieveley, Frere, Estcourt, Mooi River, Pietermaritzburg, and Durban about 27,000 men (including local volunteers) and twelve field batteries, one mountain battery, and twenty naval guns using lyddite. These forces did not include the fifth division, which had just arrived.

Great Britain put forth new efforts to strengthen her forces in the field. The fifth division (Warren) arriving in South Africa on December 20, was to be joined by others. On the day of the defeat at Colenso orders were issued for the mobilization of the seventh division, and on December 16 the sixth division began to embark. On December 17 Field Marshal Lord Roberts was appointed commander in chief of the British forces in South Africa, with Lord Kitchener as his chief of staff. The British war office gave a note to the press which stated that the appointment of Lord Roberts was made because the operations in Natal were such as to require General Buller's undivided attention in that theater of operations.



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BULLER'S SECOND AND THIRD ATTEMPTS TO RELIEVE
LADYSMITH.

On January 9 the fifth division (Warren) reached the Frere Camp. This increased the force at the disposition of Buller to some 26,000 men. In the meanwhile the Boers had decided upon attacking Ladysmith and, on January 6, they made an effort to take that city by storm before the approaching reinforcements could arrive to raise the siege.

Some of the British positions were carried and recarried three times during the day, but the Boers were finally repulsed with a loss to White's garrison of 498; the Boers reported a loss to themselves of 150, but this is probably an underestimate when it is considered that the Boers came out in the open and were the assaulting party. The British placed the Boer loss at a much higher figure. Buller, on the morning of the 6th, had been informed by heliograph of the impending assault, but he ventured only upon a bombardment of the Boer position, to which no reply was made.

After the arrival of reinforcements General Buller was again prepared to resume the offensive. This time he decided to attempt to turn the Boer right flank by an advance via Springfield on Acton Homes—a direction perpendicular to the line of communications and retreat of the Free Staters. Fearing an attack from the west because of the British reconnaissances in that direction, the Boers not only prepared to defend the commanding positions upon the river, but placed in its bed great quantities of wire obstructions. Two guns, captured from the British, were placed in position at Potgeiters Drift. Intrenchments were thrown up on the commanding tablelands north of the Tugela, among them Doorn Kloof, Val Krantz, Brak Fontein, and Spion Kop. The Boers evidently anticipated a battle on the upper Tugela.

As the plan adopted by Buller would take his troops from the railroad, they were compelled to drag in their rear some 650 ox-wagons, traction engines (road locomotives sent from Aldershot), and more than 5,000 head of cattle. This train, some 9 miles long, caused considerable tardiness in the advances of Buller; especially was this so as the rainy season had come on and the roads were very bad. On January 9 Warren's division had come up to Frere, and Buller's forces, intended for active operations, were assembled in the camps

at this place and Chieveley. Leaving a small force at Frere to hold the Boers in front and to cover his own lines of communication, Buller, with his main forces, advanced upon Springfield to put into execution his plan of campaign. The movement commenced on January 10, but due to the condition of the roads and hampered by his large train, Buller did not reach Springfield until the 13th, notwithstanding the fact that he met with no resistance whatever.

Buller naturally expected a fight before reaching the main Tugela, but this river was swollen, and, while there was yet time, the Boers fell back to the northern bank, where they prepared to make a stand. New commandos reinforced the Boer troops established on the heights north of Potgeiters Drift. The effective strength of the Boers, commanded by Botha, was, according to the "London Times," about 10,000 men. The forces under Buller actually participating in this turning movement amounted to about 12,000.

The Boer position in front of Potgeiters Drift was too strong to be taken by a direct attack and Buller decided to turn it. He gave instructions to General Sir Charles Warren to cross the Tugela near Trichards Drift and gain the open plain north of Spion Kop by following the road past Fair View and Acton Homes. In the meantime Buller was to make a demonstration via Potgeiters Drift and thus engage the attention of the Boers in his front. When the turning movement forced the Boers to weaken their front he was prepared to advance and, joining his forces to those of Warren, to push on to the relief of Ladysmith. Potgeiters Drift was seized and successfully crossed on the 16th and 17th under cover of the artillery. By the 19th Warren had also crossed the Tugela. On that evening he held a council of war and explained that the march on Acton Homes had to be abandoned, because the provisions for three and one-half days would not suffice for this longer route; consequently he would prefer the more direct route leading northeast via Fair View and Rosalie.

In forwarding the dispatches of Buller and Warren, Lord Roberts says:

The selection of this road necessitated the capture and retention of Spion Kop, but whether it would have been equally necessary to occupy Spion Kop had the line of advance indicated by Sir Redvers Buller been followed, is not stated in the correspondence. As Sir Charles Warren considered it impossible to make the wide flanking movement which was

recommended, if not actually prescribed, in his secret instructions, he should at once have acquainted Sir Redvers Buller with the course of action which he proposed to adopt. There is nothing to show whether he did so or not, but it seems only fair to Sir Charles Warren to point out that Sir Redvers Buller appears throughout to have been aware of what was happening. On several occasions he was present during the operations.

On the 20th Warren proceeded to the fulfillment of his own plan of making a forward march on Rosalie. By carrying out a series of flanking movements he was in possession of part of the hills, but found a strongly intrenched line in front of him. Buller was present on the 22d and Warren pointed out to him that it would be impossible to get wagons through, unless Spion Kop, which was within 2,000 yards of the road leading past Fair View, was first taken. The attack upon this position was postponed from the 22d to the 23d to enable the general charged with the task to make a reconnoissance. On the 23d Buller saw that the situation had not improved and gave Warren the choice between capturing Spion Kop or retiring.

Warren chose the former alternative and dispatched an expedition against Spion Kop. This was seized just before daylight on the morning of the 24th, and the small Boer outpost, taken completely by surprise, was driven off with a loss to the British of but three men killed and wounded. Intrenchments were thrown up immediately, but when daylight appeared and the fog lifted (about 8 a. m.) the British force found itself on a bare height, exposed to a galling fire from the Boer positions on the surrounding hills. The commanding officer was killed. His successor heliographed for reinforcements, but even after their arrival, only with great difficulty could the position be maintained throughout the day, in spite of the gallant conduct of the troops.

Warren was preparing to send guns to maintain the position and had sent for the officer in command of the summit to confer with him in regard thereto. During this absence the officer temporarily in command ordered a withdrawal in the night on his own responsibility, as he was not aware of the fact that steps were being taken to hold the position. General Buller, reporting upon the engagement, says that this officer, under the circumstances, exercised a wise discretion.

The dispatches containing Warren's, Buller's, and Roberts's official reports and criticisms on this engagement became known and their publication was very severely censured by

the press and Parliament. It was held by many that the disclosure of these criticisms injured confidence of the British in their leaders and gave moral encouragement to the Boers.

This attempt of Buller's to effect the relief of Ladysmith ended disastrously, and on January 25th, 26th, and 27th Buller withdrew the bulk of his forces south of the Tugela and went into camp near Springfield. He left a brigade, however, on the north bank of this river on a line of small hills serving as a bridgehead for the ford at Potgeiter's Drift. In these eight days (January 17-24) the British had lost 272 killed, 1,103 wounded, 358 captured and missing. The Boer loss was comparatively small, but the exact number can not be determined.

After a ten days' rest in camp near Springfield, Buller was ready for another attempt to effect the relief of Ladysmith. In the meantime he had received reinforcements of men and guns, so that, in spite of his losses, his forces amounted to some 27,000 men. His plan was to make a demonstration against the Boer position on the Brak Fontein Heights. To do this the brigade already across the river was to be reinforced by infantry and artillery. In the meantime a pontoon bridge below Potgeiters Drift was to be crossed by the main attacking party which was to seize the Val Krantz Spur,* whence it was hoped that the Boer flank could be turned. The artillery assisting in the demonstration was in the meantime to have returned to the support of the main attack.

This plan was carried out. During the demonstration the pontoon bridge was laid and the force making the main attack crossed upon it. After a severe bombardment for several hours Val Krantz was taken.

The importance of this spur had been greatly overestimated, and it was found that from it the Boer flank could not be turned. On the other hand, Val Krantz was subject to a galling fire from the surrounding heights still in possession of the Boers, who took prompt measures to meet the British advance and poured into their ranks a heavy artillery and infantry fire from the surrounding kopjes enfilading the Val Krantz position. The British losses numbered 25 killed, 344

* On the British map the name Val Krantz appears between the Brak Fontein Heights and Potgeiters Drift. According to Buller's reports the term evidently applies to the spur south of Krantz Kloof, and a short distance to the left of Skiel Drift-Ladysmith road.

wounded, and 5 missing. The greatest loss in this attempt fell to the lot of the demonstrating column, which was exposed for some time to a heavy fire from Spion Kop. The Boer losses were probably small. Instead of outflanking the Boer position, Buller was himself outflanked. On the night of February 7 he gave orders for the retreat over the Tugela River to his camp near Springfield. By February 9 the main part of his army was again in camp at Chieveley.

OPERATIONS IN THE SOUTH AND WEST.

So far the progress of the war on both sides had fallen much below expectations. On the one hand the Boers had failed to take Ladysmith and conquer Natal, and the resistance of Kimberley had arrested the progress of what at one time threatened to prove a triumphant march for them through the north of Cape Colony. Their efforts to take Mafeking had also been futile. On the other hand the British had failed to relieve the beleaguered garrisons of Ladysmith, Kimberley, and Mafeking; they had also failed to drive the invaders out of British territory.

On January 10 Lord Roberts reached Cape Town, where he awaited the arrival of the sixth and seventh divisions, and prepared to take the field.

From the first of the year until the commencement of Roberts's advance (February 12) the operations in the southern and western theaters were not of a decisive nature. Reconnoitering, leading to many minor engagements, was carried on by the different field forces. French showed considerable skill and energy and advanced upon and gained a foothold south of Colesberg. On the Modder River front the Boers had abandoned their Gras Pan and Belmont positions, but on February 3, General Macdonald was sent with a small force toward Koedoesberg Drift to prevent a junction of the Boer columns which were advancing to reoccupy Belmont. He was defeated, however, in the action which followed and was ordered back to the Modder River position. Kimberley and Mafeking continued to resist the Boer investments. Colonel Plumer's relief expedition, which had started from Rhodesia, had so far been unable to relieve the latter city. The sixth division (Kelly-Kenny) was sent to Steynsburg and occupied Thebus on the Steynsburg-Middelburg Railroad.

The seventh division (Tucker) was sent toward the Modder River Station.

The problem which confronted Roberts was by no means an easy one to solve. Buller had been checked and repulsed in three endeavors to push back the Boer lines about Ladysmith; Gatacre had been struggling even to maintain his position; French had failed to take Colesburg from De Wet's forces, and Methuen, after his defeats, was unable to advance to the relief of Kimberley and had to content himself with maintaining his position and keeping open his lines of communications. These columns were too widely separated to be able to render each other assistance; Methuen being about 150 miles from French, French about 60 miles from Gatacre, Gatacre about 250 miles from Buller, or in all, about 460 miles from wing to wing. A break in or withdrawal of any one of these columns would have enabled the Boers to advance through the uncovered portion and threaten to take in flank and cut the communications of the others. Grave fears were entertained for Ladysmith and Kimberley, as the surrender of either of these places would not only have deprived the British of making future use of their garrisons, but would have enabled the investing Boer troops to take the field elsewhere. The moral effect of the fall of either Ladysmith or Kimberley would also have been great, not only upon the Boers and the Afrikanders of Cape Colony and the British, but also upon the rest of the world intently watching the struggle. Something had to be done and quickly. The situation called for a general, and Roberts, beloved by the British rank and file, proved to be the right man in the right place.

On February 10 Roberts arrived at Modder River and proceeded to organize his army for an advance. Kitchener, Roberts's chief of staff, treated newspaper correspondents almost as energetically as he had done in the Sudan, and the consequence was that the real intentions of Roberts were pretty well concealed. Even when the latter had left Cape Town, on February 6, no one knew, to the great chagrin of the reporters, whether his destination was Sterkstroom, Colesberg, or Modder River.

Roberts adopted a plan which he carried out with considerable precision and rapidity and which, by exercising every precaution, he managed to keep perfectly secret. This plan

was to execute a turning movement around Cronje's left flank and advance upon Bloemfontein. This would compel Cronje to fall back and thus the relief of Kimberley would be effected. A frontal attack upon Cronje's forces was out of the question, as it was just what that strongly intrenched general would most desire. A movement about Cronje's right flank, while it might relieve Kimberley, would allow him to fall back on his lines of communications, but a turning movement around Cronje's left flank would cut that general's lines of communications with Bloemfontein and compel him to fight for them or fall back. In addition, this movement rendered it possible for Roberts to operate over a terrain favorable to the British, as it took them over more open ground.

French's front received new troops, and De Wet perceiving this evidently concluded that the mounted men in his front had been recalled merely to give a rest to French's horses, and not until the second week in February did he find out that this British general had gone by hasty marches to Hopetown. De Wet's forces then quickly attacked French's successor, Clements, and drove him back to Arundel. It seems that the Boers had been completely led astray by this reenforcement of the British troops in front of Colesberg, by the increased activity of Buller, and by a series of false rumors purposely circulated, for it appeared that Cronje did not receive any addition to his strength and suddenly found himself with but 6,000 men confronted by Roberts with his large army.

The field force actually participating in Roberts's forward movement consisted of: Infantry, 18,000; cavalry, 2,995; mounted infantry, 2,800; artillery, guns, 92 (8 naval 4.7 inch); or, in all, a total of 23,795 men and 92 guns. This does not include Methuen's division, which did not advance with Roberts's field army. The details of this force are given in the published report of the American military attaché with the British army.

OPERATIONS.

During the first days of February the situation had remained unchanged, and Cronje continued to maintain his strong position. Having left Methuen in Cronje's front to mask his movement, Roberts marched off behind these troops in the direction of Bloemfontein. French's cavalry division

had concentrated at Ramdam on the 12th, and on the 13th had crossed the Modder at Klip Drift; his patrols had found the investing girdle about Kimberley very weak. On the 15th he passed by the left flank of Cronje's forces, broke through the lines of the besiegers, and entered the city of Kimberley. This town had been besieged for one hundred and twenty-two days (October 15, 1899, to February 15, 1900), with a loss of 171 killed and wounded.

De Wet, with some 2,000 men, had pushed on from Colesberg to the assistance of Cronje and captured a large British wagon train near Waterval Drift. Roberts, with two of his divisions, turned upon Jacobsdal, where he expected to find a large garrison, but it was abandoned.

Cronje, it appears, was amazed by the change in tactics of his opponents, and in spite of the reports of his reconnoitering parties, would not believe that the British columns had left the railroad line and were marching diagonally across the country. He remained in his fortified position until the night of the 15-16, when he gave orders to fall back, with the intention of breaking through the British lines to Bloemfontein.

The interval between French (at Kimberley) and Roberts's main forces (still south of the Modder) afforded him an opportunity to slip through. French did not immediately pursue—on account of the condition of his horses, he reported. This gave Cronje some twenty-four hours' start, but on account of the long stay of his forces in camp at Magersfontein, a large number of women and children had joined his forces and a sort of family life had been led in camp. On account of this far from strictly military life, the train had become very large and cumbersome and the Boers were unwilling to abandon their "city of wagons." The scarcity of water compelled the Boer columns to keep close to the Modder River, and the whole caravan passed eastward near the British camp. Kitchener, who was personally with the advance guard at Klip Drift, saw clouds of dust and at once correctly concluded that it was Cronje's army in retreat.

The British started after the Boers in two parties, one on each bank of the Modder. This method of pursuit was successful, and Cronje, who, on account of his large train, had made very slow progress, was overtaken at Paardeberg Drift and headed off in his retreat upon Bloemfontein before he

had been able to cross to the south bank of the Modder. The reluctance to leave his wagons, the confidence inspired by his successful stand at Magersfontein, added to his hopes of soon receiving reinforcements, probably combined to influence him to stand and fight it out instead of abandoning his train and trying to cut his way through with his forces. Since all were mounted, many of his troops might have stood a fair chance of success had this been attempted.

On February 18 Kitchener made an attack upon the Boer position, but its defenders had parked their wagons and entrenched themselves so well that all attempts were repulsed with heavy losses to the British.

Owing to the heavy losses on the 18th, Roberts decided to reduce the invested Boers by artillery fire. As the wagon park had been reduced to fragments by the artillery on the first day and the putrefaction of animal carcasses was polluting the air, an early surrender of Cronje was expected. Especially was this so because no good hopes for succor seemed at hand; but Cronje and his men prepared to fight it out to the bitter end.

As long as the British artillery fire continued, not a Boer could be seen, but as soon as the infantry went forward it was met with a well-directed and destructive fire. It was only after several days that a captive balloon discovered just where the Boers were. They had dug out for themselves, in the steep bluffs of the Modder, trenches 5 feet deep, 2 to 3 feet wide at the top, broadening at the bottom to about 4 feet. These trenches were for a short distance continuous and there would come separate holes containing three or four men. Their trace was curved to prevent enfilade fire. These were excellent for a purely passive defensive position, but it would be a very difficult task to get men to leave such shelter to take the initiative.

Some Boer commandos coming from the north and De Wet, who had hastened up from the south, attempted to render assistance to Cronje, but they could do nothing. Stronger relief columns started from Natal, but it was impossible for them to arrive in time, as Cronje was some twenty days' march from there.

The British approaches were working very close to Cronje's position. The artillery was able to do considerable damage as its fire was directed by balloon signals. The shrapnel and

shell started an immense fire among the Boer wagons and killed over 75 per cent of the draft animals. The supply of provisions and ammunition was running short, and the camp, in consequence of the great number of unburied bodies of men and animals, was scarcely more than a great charnel house exhaling a sickening odor. Finally, no hope for reinforcements seeming to materialize, Cronje, after a most heroic resistance, surrendered his whole force unconditionally on the 27th (the anniversary of Majuba Hill). The prisoners numbered 4,010 men, 4 Krupp guns, 2 Maxims, and a large quantity of rifles. The women, who had been kept out of danger in chambers dug in the banks of the river, were given safe-conduct to go where they pleased.

From February 16-27 Roberts had lost 255 killed, 1,209 wounded, 70 missing and prisoners.

The road to Bloemfontein (about five days' march) was now open to Roberts. The small forces of De Wet and De la Rey (about 5,000 men), which stood half way between the British and Bloemfontein, could not seriously oppose the advance of so large a force. But the loss of a second train captured by the Boers compelled Roberts to delay until March 7, when some supplies had come up from the Modder River Station, so that the advance could be continued, but even then only on short rations. In the meantime some Boer reinforcements from Natal had come up and prepared to defend the capital of the Orange Free State. An engagement took place at Poplar Grove on March 7. As the terrain was of no assistance to the Boers, a threatening flank movement made them fall back. On March 10 a second battle was fought on the heights of Driefontein, which was also successful for the British arms. In this latter battle the British lost 63 killed and 361 wounded. The Boers lost 22 prisoners and the British buried 102 of their dead.

The climatic hardships of advancing through the sandy plains, covered with scant vegetation, were considerable. A great part of the army left the large convenient road and taking an oblique direction marched along the Kaal Spruit merely to be near water. After a few skirmishes south of Bloemfontein, Roberts's forces entered the city without further opposition on March 13.

OPERATIONS ALONG THE SOUTHERN AND WESTERN BORDERS.

Not only did Cronje's surrender clear the way for Roberts's advance to Bloemfontein, but its effects were immediately felt elsewhere all along the front from Kimberley to Natal. Thus far, the Boers had had great advantages in operating on interior lines, but their forces had tried to cover so great an extent of country that, when Roberts gained a decided advantage in the western theater of operations, the other Boer columns, which had advanced into British territory, were too far away to be able to arrive in time to check successfully his march through the Orange Free State.

At the time that Roberts began his advance the Boer forces were gaining successes in the south. As has been mentioned, the British were driven back from Colesberg (on February 12 and 13), first to Rensburg and then to Arundel, with losses in killed, wounded, and two companies taken prisoners. But in this district, as in the others, Roberts's advance made itself felt and the Boer commandants were compelled to evacuate the positions they had occupied. For the greater part they fell back across the Orange River to threaten Roberts's flank and reenforce Cronje. De la Rey hastened up in time to fight the head of the British column at Paardeberg, but without avail against superior numbers, while others advanced rapidly and vainly attempted to protect their capital. The inability of these troops to check Roberts had a depressing effect on the Boers who had so long and so obstinately checked every British move against their southern frontier. They saw themselves now threatened in rear, and Roberts, whose first care was to take possession of the railway line going south from Bloemfontein, did not lose any time in sending troops to secure the important junction at Springfontein.

Up to this time Roberts's line of communications had been via the Cape Town-Modder River railroad, and thence over some 90 miles by wagon road through a hostile country. This had to be given up owing to its length and insecurity. The railways from East London and from Port Elizabeth, joining at Springfontein, formed, very naturally, new lines to depend upon. Consequently, Roberts took means to secure this place, and efforts, in conjunction with Clements and Gatacre, were made to drive the remaining Boer troops from their positions along the southern frontier. The Boers,

finding themselves in danger of being placed between two fires, retreated in a northeasterly direction toward the Basutoland boundary. Clements, with about 5,250 men and two batteries, crossed the Orange River at Norvals Pont on March 15. On the same day Gatacre crossed at Bethulie. Brabant moved from Dordrecht on March 3 with about 1,800 men; on the 5th he defeated the Boers near this place, and by the 12th he had pushed on to Aliwal North.

On the 16th a column of 2,000 men and 4 guns, which had proceeded from Bloemfontein to Springfontein by rail, effected a junction at the latter place with Gatacre, and at Priors Station with Clements.

Roberts having at his disposal two points of passage over the Orange River at Norvals Pont and Bethulie, practically abandoned the Kimberley-Cape Town railway for that of Bloemfontein-Springfontein, and the branch lines Springfontein-Norval Pont, Naauw Poort-Port Elizabeth, and Springfontein-Bethulie-Stormberg-East London.

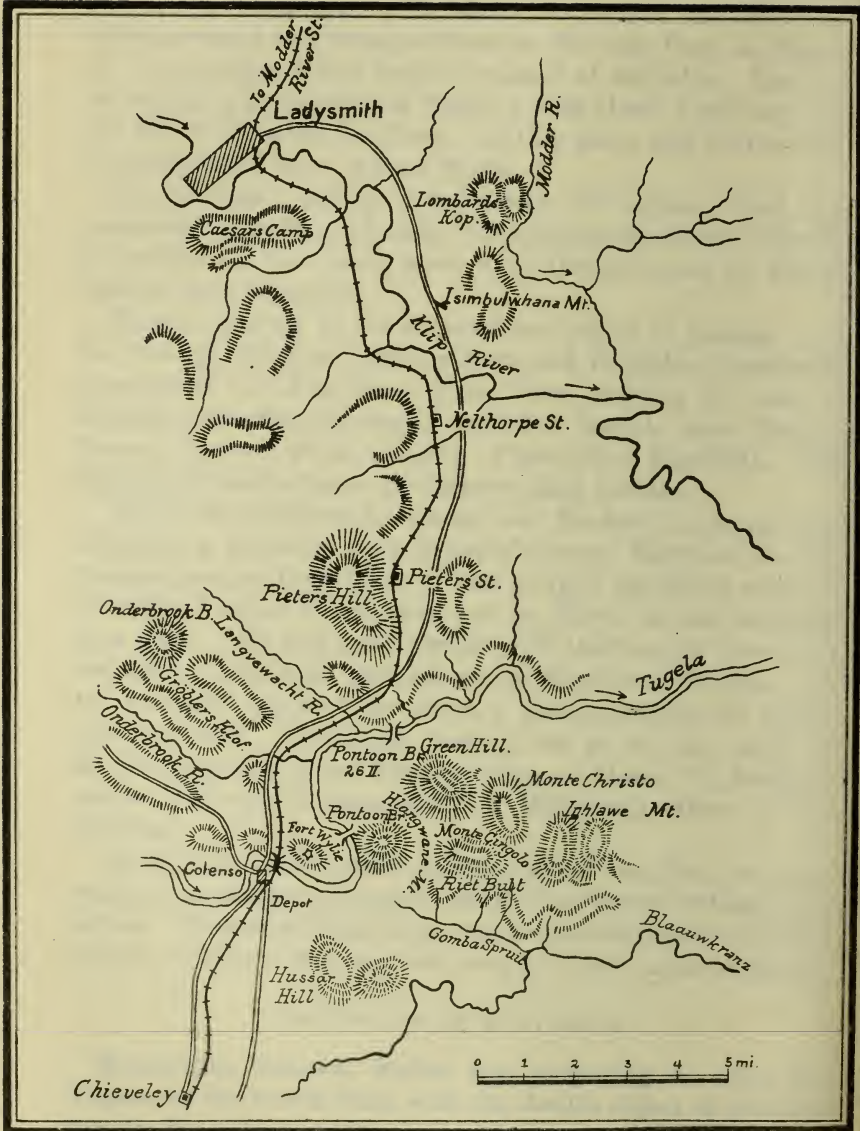
While the Gatacre, Clements, and Brabant columns were effecting a junction with Roberts's army, Methuen, in the western part of Cape Colony, had obliged the Boers again to cross the Vaal at Warrenton, and on March 16 had occupied that place. He had to be content with this for the Boers had strongly intrenched themselves at Fourteen Streams, on the northern bank of the river, a position which he vainly tried to take. He hoped thereby to go to the relief of Mafeking with Colonel Plumer, who, on March 31, fought a battle at Ramathlabama (north of Mafeking), where he was defeated.

On April 5 a small Boer detachment of less than 100 men was surrounded and captured near Boshof by part of Methuen's forces. This small Boer party was commanded by the French colonel, Villebois-Mareuil, who met his death in the skirmish.

THE RELIEF OF LADYSMITH.

Meanwhile, General Buller was preparing to cross the Tugela for the fourth time, with the double object of preventing the Boers from making a last desperate attempt on Ladysmith before rallying for the defense of the Orange Free State, and of making another effort to relieve the invested city. In his former attempts he had at first tried a right flanking movement of the Boer position, then a left flanking movement,





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and had finally attempted to break through. All these ventures had failed and he now turned eastward to a ford below Colenso to try a right flanking movement again, but here it was essential to gain possession of Hlangwane Hill, which, though on the southern bank of the Tugela, was still held by the Boers. It was most important to gain possession of this hill, for it was mainly due to the enfilade fire from this position that the attack mentioned had ended so disastrously.

It was not until the middle of February, two months after the battle of Colenso, that Buller dislodged the Boers from this position, almost contiguous to his camp. On the 14th he sent a battalion and a battery to occupy the approach to the position. Three days later he advanced. The Boers made but a feeble resistance, and the British, with very slight loss, easily captured Cingolo and Monte Cristo, while the Boers crossed to the other bank of the river. On the 19th Hart's brigade marched into Colenso, which was found to be unoccupied. The British were now in possession of the southern bank of the Tugela and thus had succeeded in their preliminary preparations for a fourth advance to the relief of Ladysmith, which had been suffering great privations from its long and trying siege. The investment of Ladysmith appeared to slacken and the unusually weak resistance of the Boers seemed to indicate their intentions of leaving the district. This was one of the first visible effects in Natal of the strategical movement commenced between the Riet and the Modder by Lord Roberts.

On February 21 the British crossed the Tugela near Colenso on a pontoon bridge and an attack was made upon Groblers Kloof, but a repulse was the result. On the 22d an attack was made upon Pieters Hill, but the British were again repulsed with considerable losses, including their leader, General Wynne. The British were now all over the Tugela near Fort Wylie, while the Boers occupied a semicircular position before it. On the 23d a second attack upon Pieters Hill was unsuccessful, and part of a brigade, executing a turning movement, was very badly cut up and compelled to fall back with heavy losses. After these successive repulses Buller again fell back across the Tugela, destroying his pontoon bridge. On the 27th part of his forces crossed on another pontoon bridge, which was farther down the Tugela near

Langvewacht stream and consequently closer to the Pieters position, which Buller evidently considered to be a key to the situation. A successful attack, well prepared by artillery, was made on Pieters Hill on the 27th. On the afternoon of the same day Groblers Kloof was also attacked and taken.



Der Krieg in Süd-Afrika.

Groblers Kloof.

On the 27th Buller advanced to Nelthorpe, the Boers falling back toward their frontier. The latter's forces had been greatly weakened by sending reinforcements to check Roberts, and for two weeks had been practically maintaining a rear-guard fight. Thus it was that on the 28th the advance guard of Buller's forces entered Ladysmith unmolested and relieved that city after its investment of one hundred and twenty days. The garrison had lost during the siege 20

officers and 230 men killed, 69 officers and 564 men wounded, 6 officers and 340 men died of disease; there was also a great number sick. Dysentery, typhoid, and other diseases, caused by the bad water, privations, and stench of a completely invested city, raged during the entire time of the siege. A very large percentage of the men had passed through the hospital and the daily average of persons requiring medical attention was high.

Buller's corps had lost, between the 15th and 27th of February, 277 killed, 1,767 wounded, and 16 prisoners.

ROBERTS'S HALT AT BLOEMFONTEIN.

The problems confronting Roberts at Bloemfontein were: To prepare his forces for a further aggressive advance into Boer territory, which involved securing his new lines of communication and establishing a base at Bloemfontein; to supply remounts for a great part of his mounted troops, and to reorganize his army, as reinforcements from England and the colonies had arrived. The work connected with these problems resulted in a halt at Bloemfontein for some seven weeks. During this period the two Presidents made peace proposals, and Boer delegates traveled through Europe and America in the vain hopes of bringing about intervention.

Roberts made an attempt to intercept the Boers falling back from the Orange River via Wepener toward Winburg, but Olivier, with the bulk of these forces, had successfully slipped through by the 26th of March.

The Boer forces did not remain inactive during this period, and Kruger's "Now the real war will begin," after the surrender of Cronje, was not a mere threat. Efforts were made to put new forces in the field, to stop a further British advance. Those long in active service and the weak-hearted were furloughed for a short time to go to their homes, it being understood that their patriotic wives would see to it that they returned on the expiration of their leaves. And so it was.

Meanwhile reinforcements came from the Transvaal, and gradually a force was assembled, concentrating at Brandfort. The Government of the Orange Free State was removed from Bloemfontein to Kroonstad, where Presidents Kruger and Stein addressed the people, urging them not to lose heart,

but to continue the war, and with the aid of the God of Battles for a righteous cause theirs would meet with ultimate success, although the days were then dark. A great council of war was held, and it was decided to abandon their passively defensive tactics and to take the offensive against their foe. Whenever a success was attained, the British were to be followed up, so as to make the victory more decisive.

This policy was carried out. The commandos lived upon the country, had no wagons beyond ambulances and artillery carriages, marched at night and camped by day in sheltered or protected places. Small flying columns appeared unexpectedly here and there. Under favorable circumstances they exhibited a tenacious resistance, or slipped away at the last moment.

At this time a new commander in chief took control of the Boer forces. This was due to the death of General Joubert on March 27. Botha, who had performed excellent service for the Boers, was assigned to the command of the allied forces, although he, unlike Joubert, was commandant general of the Transvaal Boers only.

The new Boer policy added greatly to the difficulties of keeping clear the British lines of communications, and even the troops stationed at Bloemfontein were not exempt from annoyance as the raids of the Boers at times extended to within short distances of that city. On one occasion the Boers would blow up a railway bridge, on another they would capture the posts or destroy the telegraph, etc. The greatest blow which Roberts received was from De Wet. On March 31, after three consecutive night marches, he, with about 1,500 men, fell upon a British force at Sannas Post, the waterworks of Bloemfontein on the Modder River, 18 miles east of the town. The British force consisted of some 150 large wagons, two field batteries and a guard of cavalry and mounted infantry. The affair was cleverly planned and well carried out. The camp was attacked from two sides and an ambush of 400 men laid for the train at about 1,500 yards from the camp; into this ambush the wagon train and the two batteries fell. The result was an action of three hours, in which the Boers lost 2 killed and 11 wounded, took some 427 prisoners, 7 field guns, and more than 100 large wagons and carts. The British lost, in addition, 153 killed and wounded. On the same day Roberts found it necessary to drive the Boer

force from its position at Karee Siding on the railroad a short distance south of Brandfort. In the battle which followed, the Boers were defeated after inflicting a loss of over 100 killed, wounded, and missing upon the British.

After this affair of March 31 at Sannas Post, De Wet allowed no grass to grow beneath his feet, but pushed southward toward De Wets Dorp. Gatacre, who had occupied Bethanie, sent out a force of some 400 men to De Wets Dorp to collect arms from the burghers in this district under the terms of a proclamation issued by Roberts. On returning, this force was attacked near Reddersburg on April 3 by De Wet. After a fight in which the British force surrendered on the 4th, with a loss of 47 killed and wounded and 405 prisoners, Roberts relieved Gatacre and sent him to London.

While his brother, Piet De Wet, remained near De Wets Dorp in order to hold off the British in that quarter, De Wet continued the raid as far as Wepener on the Basutoland frontier. This town had been garrisoned by about 2,000 British with 7 guns. Leaving part of their troops, reenforced by two other commandos retiring from Rouxville and Smithfield, to invest the British camp just outside the town, the Boers advanced southward as far as Smithfield and forced the British in this region back upon Aliwal North. Olivier with his column operated in the vicinity of Thaba Nchu and the Boer leaders displayed great audacity. They attacked columns on the march, surprised garrisons, captured guns and convoys, took whole companies prisoners and scoured the country to the great annoyance of their adversaries.

Roberts found it necessary to take heroic measures and disposed his forces in such a manner as to force the mass of the Boers north of the line, Bloemfontein-Thaba Nchu-Ladybrand, but it was not until the night of April 24 that the investment of Wepener was abandoned and the Boers found themselves compelled to retreat.

The forces at De Wets Dorp retired to the Thaba Nchu Mountain, while the forces besieging Wepener fell back toward Ladybrand. The British pursued closely during the following day, and on the 27th three of their columns came together in the vicinity of De Wet's position; French, being the senior, assumed command. All of French's attacks were successfully resisted by De Wet, as were also all efforts to flank him from his position. Upon Roberts starting his

advance toward Kroonstad, De Wet evacuated his position on May 3 and 4, and successfully withdrew without the loss of a single gun or wagon.

ROBERTS'S ADVANCE FROM BLOEMFONTEIN TO PRETORIA—
ADVANCE OF THE WHOLE LINE ACROSS THE VAAL—RE-
LIEF OF MAFEKING.

Roberts's plan at this time seemed to be to advance along the railroad upon Pretoria, with the main center column under his personal supervision, while Methuen was to advance via Boshof and Hoopstad upon Kroonstad; Buller was to push forward from Natal.

On April 20 Methuen's forces had advanced toward Hoopstad, but had to fall back for a short time. The Boers under De la Rey attacked his rear guard as he retired. Buller had not been free from molestation, and on April 10 the Boers took Clery's forces by surprise near the Sundays River and only with the assistance of reinforcements and after a hard fight were the Boers driven off.

On May 1, Roberts, with a force of about 35,000 men, began his advance to the north. His army covered a broad front, the center advancing along the Kroonstad railway.

Had Roberts commanded a force not greatly superior to that of the Boers he would have encountered great difficulties. To advance along the railroad he would have been forced to push the Boers back from their successive defensive positions. Frontal attacks had long before been bitterly paid for; to leave the railroad in order to execute flanking movements would have given him a severe task in keeping connection with his base and his lines of communication open.

As it was, Roberts, with his great numerical superiority, was enabled to flank the Boers successively from their positions with the result that, during his entire advance from Bloemfontein to Pretoria, the British were never in danger of being checked, and every day's march was made as planned. The country to be traversed while marching along the railway line to Pretoria is intersected by several water courses which collecting the waters in the east, lead them to the Vaal in the west. These might serve as so many lines of resistance, though, except on the right where the country is more or less mountainous, there are no positions suited to obstinate resistance.

In marching along the railroad, Roberts was able to utilize the trains in keeping his troops supplied with food and munitions. The railway was repaired, bridges reestablished, and the trains conveyed provisions to within a short distance of the lines; from this point they were carried by wagons all along the front.

Botha was avoiding engagements to escape being surrounded. He had to abandon successively his best defensive positions, only contenting himself with occasional skirmishes in the rear. On May 2-3 Brandfort was occupied by the British with only slight opposition. On May 5 the Boers' line on the northern bank of the Vet River was turned and they fell back. The British occupied Winburg. On the 10th the Boer position on the Zand was outflanked and its defenders fell back after inflicting a loss of about 100 on the British. On May 12 Roberts's forces entered Kroonstad without opposition and the seat of government of the Orange Free State was transferred to Heilbron. The casualties of all the forces directly under Roberts in the advance from Bloemfontein to Kroonstad were 32 killed, 162 wounded, 35 missing, 11 prisoners.

A short halt until May 22 was made at Kroonstad by Roberts, who employed this time in firmly securing his lines of communication which extended through the heart of the Orange Free State; his troops were given a short breathing spell. On May 21 Roberts had with him, directly under his command, a force of 30,000 men. Some 15,000 additional troops had been left in his rear to guard his lines of communication from Kroonstad to Bloemfontein.

Roberts expected Buller to advance from Natal in conjunction with his forward movement. By advancing into the Transvaal, Buller might have cut the Boer line of retreat from Pretoria to Middelburg and they might have been compelled to disband or surrender; by marching through the Drakensberg Passes into the Free State he could have rendered Roberts valuable assistance by advancing with him upon Pretoria. As it was, over three and one-half months had elapsed since the relief of Ladysmith before he entered the Transvaal on June 11—a week after Roberts had occupied Pretoria—although the latter general had more than once ordered Buller to push forward. The success of Buller would also have opened to Roberts another line of communication

via the Durban-Ladysmith-Newcastle railroad, which would be more than 150 miles shorter than his present one. On the other hand, the difficulties with which Buller had to contend were very great. The terrain was badly cut up and well suited for a small force to impede any advance of a hostile army. Buller's forces, while they greatly outnumbered the Boers, were at a disadvantage in such a country.

On May 9 Buller set out against the Boers in his front. They occupied a strongly entrenched position in the Biggarsberg chain with about 3,000 men. The allied forces were outflanked from their position near Helpmakaar, and in their retreat set fire to the grass, hoping thus to retard Buller's advance. The British followed the retreating Boers, who on May 11 evacuated Dundee, which the British soon occupied. From this time on Buller was able to continue his advance through Natal without a struggle, and on May 17 he arrived at Newcastle. The northern part of Natal was entirely free from the Boers, who had been occupying it for seven months. Their forces fell back, blew up the railway bridge at Ingogo and the tunnel at Laings Nek, and established themselves firmly on the Laings Nek ridges, where they blocked Buller in his attempt to join Roberts.

Rundle, with the eighth division and Brabant's troops, was operating in the vicinity of the Ficksburg Mountains and was moving northeast of Ladybrand. On May 9, the same day on which Buller set out for the northern passes of Natal, Methuen, with 5,000 infantry, 20 guns, and 12 machine guns, started for Boshof in the direction of Hoopstad-Bloemhof. Hunter, with the tenth division, which had been transported from Buller's corps by water and rail, succeeded by well-concealed flanking movements in forcing the passage over the Vaal at Warrenton. On May 4, a flying column of Hunter's forces, under Colonel Mahon, made a rapid march through Bechuanaland for the relief of Mafeking, and joined Colonel Plumer's force operating southward from Rhodesia with the same object. The Boers fronted this new force, but the British relieving columns, assisted by the garrison, forced the Boers to retire. On May 17, after a seven months' siege, the relief of Mafeking was an accomplished fact. During this investment the besieged troops had lost 253 killed, wounded, and captured. The endurance, energy, and pluck of the small

garrison in the defense of this city had added a bright page to British military history.

It appears that the movements of Hunter and Methuen themselves had no direct influence on the relief of Mafeking, for the former arrived at Christiania on the Vaal the day before, and the latter at Hoopstad, in the Orange Free State, the very day the town was relieved. These two generals were each about 140 miles in a straight line from Mafeking.

An elaborately planned expedition, commanded by General Carrington, had landed at Beira (about 500 miles north of Delagoa Bay), in Portuguese territory, in the month of April. This force of some 5,000 men was intended to menace the Transvaal from the northern border, but only a detachment of Australians from this column arrived in time to aid Plumer. Sickness had greatly impeded the advance of this force. Nothing further of great importance happened in the western district, and Hunter pushed on to Mafeking practically unopposed. He reached Vryburg on the 24th, Doorn Bult on the 28th, and by the end of the month was near Mafeking.

After a halt of ten days at Kroonstad, made profitable by the reestablishment of the railway and filling out the amount of supplies, Roberts was ready to resume the offensive in order to attain his objective, Pretoria. In a general way the forces of the two parties were then distributed as follows:

BRITISH.—Army of the center (Roberts) at Kroonstad; army of the east, or extreme right wing (Buller), in Natal, at Newcastle; army of the west, or extreme left wing, subdivided into three groups occupying Hoopstad (Methuen), Vryburg (Hunter), and Mafeking (Mahon and Baden-Powell).

BOERS.—Group of the center having an effective of 7,000 men, mainly north of the Rhenoster River; group of the east, about 4,000 men, at Vryheid, Utrecht and Laings Nek; group of the west, an effective of 2,000 men at Klerksdorp and Zeerust. Of course, the figures given for the Boer forces are only approximate; to these should be added, however, the forces of the different commandos beating up and down the country, particularly in the Ficksburg region.

The British, under Roberts, again advanced in three columns. This general was with the center one marching along the railroad. These columns covered some 40 miles front. The right and left columns were to flank the Boers from their

position before the arrival of the central column at the Rhenoster; then, falling back toward the Boer position, the burghers would find themselves outflanked and be compelled to retreat without offering much resistance. Besides, by making his three columns march on this broad front, Roberts wished to force the Boers to scatter their troops to cover their front if they did not retreat from their successive positions. He was also anxious about his communications, as, judging from past experiences, some telling stroke was not unlikely on the part of the Boer commandos which Rundle and Brabant had, with great difficulty, driven northward. For greater security, Methuen, who had marched from Hoopstad to Bothaville, was ordered to advance to Kroonstad. On May 26 this general moved from Bothaville toward Kroonstad. In early June, Hunter was advancing upon Pretoria via Ventersdorp.

On May 22 the Boers in position at Rhenoster were outflanked and compelled to fall back. The rivers, owing to the dry season of the year, were not as well suited to serve as lines of defense as they had been in the more rainy months.

On May 28 Rundle (with his eighth division) was north of Senekal; Brabant (with about 2,000) was at Ficksburg. These generals were operating against the Boers whom the British could not pacify in this district. On May 29 Rundle successfully engaged the Boers at Senekal, but the British lost 172 killed and wounded.

Roberts, before moving across the Vaal, made a very thorough reconnoissance, and on May 26 his left flank crossed the river, the center and right making a demonstration. On the 27th the center crossed at Villjoens Drift and Roberts was in possession of the Vaal line. After crossing the river, Roberts continued his march without awaiting the arrival of supplies and provisions. On his way, passing through Meyerton and the Klip River Station, the Boers offered feeble resistance on the 27th and 28th, but no obstacle of a serious nature was encountered.

On the 29th Germiston (a short distance east of Johannesburg) was occupied after some opposition. This made the British army's eighth day of continuous marching with over 17 miles per day to its credit. They had, in the meantime, repaired broken bridges and the railroad where it was torn up. While the fighting had not been severe, yet there had

been some. On the 30th the investment of Johannesburg was being forwarded and negotiations carried on for its surrender, which took place on the following day, May 31. The valuable mines were, greatly to the relief of the British, found to be uninjured, although the Boers had threatened to destroy them if they were in danger of falling into their enemy's hands. A large quantity of rolling stock and railway engines were taken. These were most useful later.

On May 28, as soon as the British had passed the Vaal, the Orange Free State was formally proclaimed by Lord Roberts to have been incorporated in the British possessions under the name of the "Orange River Colony."

While the three columns, under the command of Lord Roberts, were pressing on to Johannesburg, Buller was experiencing difficulties in his field of operations. Having occupied Newcastle, he directed his course to the north avoiding, if possible, Laings Nek, which he endeavored to turn by the east. He had to contend with the great difficulties of terrain of the border mountains at Laings Nek, where the ground rises to a height of over 6,000 feet; the passes are narrow, and an energetic enemy on the defensive has great advantages.

Buller sent part of his forces to occupy Utrecht; this was done on the 27th without any resistance. The struggle in the mountain passes amounted to an artillery duel at long range only. Nothing of further importance took place in the west. To sum up: On the day that Johannesburg was entered, Rundle and Brabant were still in contact with the Orange Boers near Senekal; Buller, who had occupied Utrecht, was opposite Laings Nek; Hunter had arrived at Mafeking and Methuen was nearing Kroonstad.

Roberts spent until June 3 in bringing up supplies and ammunition. It was expected that the Boers would make a determined stand at Pretoria and siege guns and howitzers had been prepared for the investment of that city.

Not to leave the Boers any time to recuperate, Roberts continued his march upon the Transvaal capital on June 3. The British mounted infantry was in touch with the Boers on the 4th at noon, but was forced to fall back. The artillery coming up, the burghers were forced to retreat and very early on the morning of the 5th Pretoria surrendered unconditionally.

There had been no fire from the permanent forts about

Pretoria. Gun emplacements had been made and strong permanent forts put up about the city, but when the British took it they found that the Boers, who had previously removed all their artillery, including the heavy guns, had abandoned their capital.

The British loss was 51 killed and wounded on June 4. Their total losses from Kroonstad to Pretoria had been 365, which, together with the 240 suffered on the march from Bloemfontein to Kroonstad, give a grand total of 605 during the advance from Bloemfontein to Pretoria of the forces actually with Roberts.

The Boer forces had, in the meantime, retreated along the Middelburg railroad. On the 29th of May President Kruger had left Pretoria for the Lydenburg district. With him were the government officials and all the most important documents and archives.

At no time during the entire march from Bloemfontein to Pretoria had the Boer resistance been serious, for as soon as they saw their flanks turned, they retreated. Roberts had accelerated the march of his troops as he did not wish to allow his adversaries time to prepare defensive positions. The British infantry had made more than 250 miles in thirty-three days, including a ten days' halt at Bloemfontein and one of three days at Kroonstad; this gives an average of $12\frac{1}{2}$ miles per marching day.

On June 5 Roberts's army entered the city and found the streets lined with British prisoners who had been released by the Boers. The total number of these was 148 officers and 3,039 men; 900 had been removed by the Boers in their retreat. Twenty locomotives, over 200 cars, and large quantities of supplies were captured. Roberts's forces entering the city on the 5th were 25,531 men, 12 heavy, 104 field, and 76 machine guns.

That Roberts had hoped to cut the Boers' line of retreat to the Lydenburg district is manifest in the operations of the two forces of Hunter and Buller. His object seemed to have been to execute a converging march with these columns upon Johannesburg and Pretoria. If these movements had been executed in timely accord, the Boers would at least have been prevented from retreating in an easterly or westerly direction and perhaps might have been surrounded on three sides and forced to a decisive engagement. But, as has been mentioned, this plan was spoiled by Buller's inability to advance

northward from Natal. As it was, although he had captured Pretoria, Roberts had not been able to force his enemies into a decisive battle to break their resistance. The continual turning aside by the Boers and the uninterrupted retreat left open to them from Johannesburg and Pretoria into the mountainous parts of the Transvaal was the cause of a great deal of later trouble and consequent prolongation of the struggle. Nevertheless, in England there was great rejoicing over the fall of the Boer capital, and it was the general belief that the war was practically over.

While Roberts was marching upon Pretoria, Rundle and Brabant were in the Senekal vicinity, where they were reinforced by Methuen, who, as has been mentioned, had received orders to march to Kroonstad. These three generals, in spite of their united efforts, did not succeed in forestalling the blows dealt by the energetic Boer detachments. Among them, that of De Wet was particularly prominent. On the 31st of May (the very day of the surrender of Johannesburg) a battalion of Imperial Yeomanry, marching from Lindley, was attacked by the Boers near the latter place. After a three days' fight the survivors were compelled to surrender. Methuen made a forced march from Kroonstad to rescue this force, but, although having marched 44 miles in twenty-four hours, he arrived too late. Rundle and Brabant were equally unsuccessful in their endeavors to assist Methuen in recapturing these prisoners.

A few days later a militia battalion disembarking from the train was surprised and captured at Roodewal. This was a very bold stroke, as it was executed in the midst of strong British forces. Over 20 miles of track were torn up and destroyed.

When Roberts learned of this new disaster he sent Kitchener from Pretoria to attend to De Wet. Methuen and Kitchener attacked him, but he succeeded in safely withdrawing. Although often reported defeated, De Wet never seemed to lose energy, as he appeared to know just when to fight and just when to retreat.

In Natal, Buller was trying to flank Christian Botha (brother of the commander in chief) from his strong position near Laings Nek and Majuba Hill. Negotiations were entered into for the surrender of this Boer force, but, after a three days' armistice, nothing was accomplished. On June 8

the Boers were flanked out of a strong position. On the 10th and 11th the Natal-Transvaal frontier was crossed, the Boers abandoning Laings Nek and Majuba Hill to the British on the latter date. The Boers in evacuating this strong position, gave up all claim to Natal territory and withdrew eastward toward Wakkerstroom without any severe combat having taken place. This result was partly due to Roberts's uninterrupted march upon Pretoria, but partly, also, to Buller's successful flanking maneuvers. Buller did not push on to join Roberts at Pretoria, but withdrew to Charlestown for a short time. Hunter, who was coming from the west to assist Roberts, had reached Potchefstroom.

Upon the occupation of Pretoria by the British, the Boers under Botha fell back a short distance along the Middelburg railroad. President Kruger was at Machadodorp where he had transferred the seat of the Transvaal Government.

On June 11-12 Roberts, with some 2,000, attacked Botha's position near Eerste Fabriken Station, about 15 miles east of Pretoria, where the latter's forces constituted a direct and constant menace to this city. After a two days' fight, in which he lost 167 men, Roberts outflanked Botha's forces. This was called the battle of Donkerhoek by the Boers. On June 13 the Boer forces under Botha retreated a short distance along the railroad toward Middelburg. Roberts did not take up the pursuit, but awaited the arrival of Buller's forces from Natal, and reinforcements from Hunter and Baden-Powell. On June 18 the former had reached Krugersdorp, and the latter Pretoria. Buller was at Standerton on the 17th. On the 24th he was in touch with a part of Roberts's forces advancing along the Heidleburg-Standerton-Laings Nek railroad. Instead of bringing strong reinforcements to Roberts's assistance, Buller had been forced to leave a large part of his corps distributed along the line to guard it properly.

The Boers, under Erasmus and De la Rey, were continuing to hold their positions to the north of Pretoria. These forces formed about that city a cordon which they continued to maintain in spite of the fact that the forces under Botha, to the east, had been forced to retreat. Forces numbering about 2,500 were in the vicinity of Waterval, Rustenburg, and Krugersdorp, under De la Rey. Joining these forces were

those of Erasmus to the northeast of Pretoria, whose troops in turn were joined by other commandos.

Roberts was making ready to prosecute again an active campaign against the Boer forces, and was preparing his troops for the same. His plan at this time seemed to be to separate completely the Transvaal forces under Botha on the Pretoria-Middelburg Railroad from those of the Orange Free State in the mountainous districts of Bethlehem, Harrismith, Vrede, and Ficksburg, under De Wet, Stein, and others of the Orange leaders. The Transvaal and Free State forces suffered a strategical disadvantage by reason of their being separated by a distance of over 200 miles, and, although they could annoy and harass the British very greatly, they could neither of them prevent a determined advance on the part of their adversaries. The British were to effect this separation completely by breaking through the lines of communication between these bodies. All available troops were then to try to break up the resistance in the Orange Free State region and to terminate conclusively the interference on the part of their leaders who were greatly troubling the British communications.

Buller's and Roberts's junction along the Standerton-Heidelberg railroad separated the Transvaal and Free State groups. Toward the end of June the Orange Boers were for the most part concentrated in the Bethlehem district under Stein, Olivier, and De Wet. Roberts sent Hunter's column and other reinforcements to cooperate with those already there, and De Wet retreated from Bethlehem on July 7.

De Wet had caused the British a great deal of annoyance. The success of his and of other small bands appearing at unexpected times and places had not only delayed the British, but caused them the loss of a large quantity of supplies and some prisoners. De Wet in particular seemed to meet with great success, and, although he was more than once in a tight corner, he always seemed to be able to slip away safely from his pursuers closing in about him. Besides, Roberts's field forces had to be greatly weakened in order to furnish garrisons to guard important points.

In order to put a stop to the guerrilla warfare in the northeastern part of the Orange Free State, Lord Kitchener received orders to conduct a portion of the divisions of Rundle, Brabant, and Methuen, whose combined strength was to be

utilized to put a stop to the trouble in this district; but De Wet eluded them all.

On July 29 Commander Prinsloo, surrounded by Hunter and Rundle at Fouriesburg, surrendered with 986 men and 1 Krupp gun. Olivier broke away in the direction of Harri-smith.

The forces about Pretoria also greatly annoyed Roberts by their activity. Early in July the Boers tried to capture the British garrison at Rustenburg, but Methuen, coming up from the Orange Free State, defeated them at Olifants Nek, and Rustenburg was relieved. De la Rey was still north and northwest of Pretoria, and on July 11 made a descent on the guard at Mozilikats Nek, attacked at daybreak, killed and wounded some 68, and captured 90. He reported that he had taken the whole British outfit, including 18 wagons with teams, 2 Armstrong guns, 1 Maxim, and large quantities of arms and ammunition. On the same day an outpost but 5 miles from Pretoria was surprised by the Boers and the British had to fall back with a loss of 28 killed, wounded, and captured. Minor engagements took place to the east of Pretoria between June 23 and 28.

So tireless were these sallies by the Boer leaders, both here and elsewhere, that a European journal applied Franklin's remark "Philadelphia had taken the British" to the present occasion. While this was, of course, far from the real state of affairs, it was nevertheless true that the capture of the Transvaal capital did not give the British the hoped-for conclusion of the war and collapse of the Boer resistance.

Whole volumes might be written on the raids of De la Rey, Stein, Olivier, and De Wet. The courage and skill they displayed have won the admiration of their opponents. Some of the British soldiers dubbed De Wet the Inspector General of the British army, from his ability to appear at unexpected places in time to capture a weakened garrison or convoy.

In the middle of July, Roberts, with some 2,000 men, took the field against the main Boer army under Botha. Between July 19 and 23 the British broke through Erasmus's column to the northeast of Pretoria, and the cordon spoken of above fell back. Botha was also forced back and a retreat all along the line was taken up before Roberts's advance. The Boers retreated along the railroad upon Middelburg and the fastnesses of the Lydenburg Mountains.

On July 29 the British occupied Middelburg. On the 30th Roberts reestablished his headquarters at Pretoria, and for a time his field forces near Middelburg gave up the offensive, as this front had been weakened, to attend to the Boers elsewhere, and besides the line of communication from Pretoria to Middelburg required garrisons along the railway to guard it from attack.

In August steps were taken to continue the offensive against Botha and remedy the situation in the eastern Transvaal. Buller with part of his forces had in the meantime advanced along the Ermelo-Carolina line to cooperate with Roberts in his advance in this district. On August 7 Buller attacked at Amersfoort his late opponent, Christian Botha, who was trying to head him off in his attempt to advance to assist Roberts. Christian Botha was compelled to fall back, and on August 15th Buller was in the vicinity of Carolina and communication was established with Roberts's forces in the vicinity of Middelburg. Buller was greatly delayed by the repeated attempts of the Boers in his rear to destroy his line of communications, against which many attempts, meeting with greater or less success for the time being, were made.

Toward the end of August, Roberts was prepared again to take the field against Botha's forces. Buller rendered fitting assistance to this effort to attempt to break the Boers' spirit by crushing their main army.

The Boer position at Machadodorp was a very strongly fortified one and extended some 30 miles. Here they made a determined stand, but the British were successful in the ensuing engagement on August 26th. On this evening Buller was in the vicinity of Bergendal.

In the Orange Free State the Boers, under Olivier, were repulsed in an attack upon Winburg on August 26; Olivier was captured. General De Wet found himself in an uncomfortable position, but extricated himself by dividing his forces up into small detachments and slipping through the British lines to reassemble later.

On August 26 Roberts's headquarters was at Belfast, and on the 28th he continued his eastern march. The Boers found their position near Helvetia, where they had fallen back, threatened from several directions, and they abandoned their position here after offering Buller an engagement at Bergendal. On the 28th Buller's vanguard occupied Machadodorp,

which had been the Transvaal capital since May. Kruger, as well as the other members of the Transvaal Government, fell back to Nel Spruit. The British were unable in the engagements of August 26 and 28 completely to defeat Botha's army, which beat a timely retreat. They could not keep the Boers from falling back into the Lydenburg district. To accomplish this, French, with the cavalry, had been put on the British left wing to keep the Boers from retreating northward, because the Lydenburg district, in addition to being rough and mountainous, was very malarious. Roberts hoped by this means to push the Boers back along the railroad and compel them to fight a decisive battle, which would force them to surrender or retreat across the Portuguese frontier.

At Helvetia the Boers divided; part, under Villjoen, retreated eastward along the railroad; the main body, under Botha, fell back in a northerly direction toward Lydenburg. At Nooitgedacht the Boers had established a prison camp, and on the 29th Villjoen, who could no longer hold the position, liberated some 1,800 men, but sent the officers to Barberton.

On September 1 Roberts issued a proclamation announcing the annexation of the Transvaal to the British possessions. On the 7th Lydenburg was occupied by the British. The Boers here divided into two forces, one of which went north toward Krugers Post, and the other east toward Spitz Kop. On the 12th Buller drove the Boers from their position at Spitz Kop.

On September 2 some 3,000 Boers suddenly appeared before Ladybrand, and, after demanding its surrender, tried to take the place. Reinforcements coming up, the siege was raised on the 4th.

While Buller followed Botha, Roberts continued the march toward the east against Villjoens force. The Boers were driven from their position, and Kruger and other of the officials at Nel Spruit fell back in the direction of Komati Poort. Kruger, who had been granted a long leave of absence, transferred the Government to the vice-president, Schalk Burgher, and reached Lourenço Marquez on September 11. In October he embarked on a Dutch man-of-war for Europe in the interest of the Boers.

On September 13 French occupied Barberton, where he secured 43 locomotives and a large quantity of rolling stock.

On the 18th some 700 Boer soldiers, mostly of the foreign contingent, crossed the frontier at Komati Poort and surrendered to the Portuguese Government. The balance, under Villjoen, retreated toward the north through to the Lydenburg Mountains, to unite later with Botha's forces. "There is nothing now left of the Boer army," reported Roberts, "but a few marauding bands."

The total British casualties from the beginning of the war up to September 15, 1900, had been :

	Officers.	Noncommissioned officers and men.
Killed -----	285	2, 718
Died of wounds -----	86	797
Missing and prisoners (excluding those who have been recovered or died in captivity) -----	12	809
Prisoners died in captivity -----	3	86
Died of disease -----	149	5, 582
Accidental deaths -----	3	107
Sent home as invalids -----	1, 239	28, 199
	1, 777	38, 298
Total losses (exclusive of sick and wounded men now in British hospitals in South Africa) -----		40, 075

From this time on the operations were all of a minor nature. On October 24 Buller sailed from Cape Town, and on December 11 Roberts, who had been appointed to succeed Lord Wolseley as commander in chief of the British army, also left for England. Kitchener had assumed command in South Africa on November 2.

The larger operations were over, and with the retreat of Botha from the Lydenburg and the departure of Kruger for Europe, the actions were limited to small commandos and bodies of troops appearing at unexpected times to descend upon a convoy, capture a small garrison, tear up the railroad, etc. In the belief that the war was practically over, several thousand troops were returned to England and the colonies, when in December the Boers resumed a more determined offensive and De Wet invaded Cape Colony.

On November 23 De Wet captured the British garrison of 400 men and 2 guns at De Wets Dorp after having inflicted upon it a loss of 15 killed and 42 wounded. A column was sent from Edensburg to relieve De Wets Dorp, but did not arrive in time.

Soon after De Wet continued his march south, and on December 5 crossed the Caledon River, making for Odendaal Drift. Cape Colony was greatly alarmed. On December 7 De Wet was camped near Aliwal North, which prepared to resist an attack. De Wet, finding his way into Cape Colony blocked and his pursuers closing in all about him, began to fall back. He escaped from his pursuers and again successfully broke through the Thaba Nchu line.

This taking up the offensive by the Boers in December was marked by minor successes on the part of several of their leaders, although in some cases the British were victorious. On the 13th De la Rey attacked the British at Nooitgedacht and inflicted upon them a loss of 285 killed and wounded and 346 prisoners. On December 29 the British lost 48 killed and wounded, 230 prisoners, and one 4.7-inch naval gun captured at Helvetia on the Machadodorp-Lydenburg railroad.

On January 7, 1901, the Boers made simultaneous and determined attacks on the British at Wonderfontein, Nooitgedacht, Pan, and Belfast where a British post was compelled to surrender with a loss of 59 killed and wounded and 80 prisoners. Fighting also took place near Krugersdorp and Senekal.

Early in February De Wet again moved south and crossed the Orange River at Zand Drift on the 10th. Moving west he attacked Philipstown, but was repulsed. French was occupying Botha's attention in the eastern Transvaal, Methuen was engaged in clearing up the Vryburg region and had successfully encountered the Boers near Klerksdorp. French defeated Botha, and by the 25th had captured 3 guns, large quantities of ammunition and supplies, and quite a number of prisoners.

On the 24th Kitchener cabled: "De Wet's attempt to invade Cape Colony has evidently completely failed." The British closed in upon the Boer general, but he succeeded in recrossing the river and escaped northward.

The casualties reported in the British field force for the month of February, 1901, were: Killed in action, 128; died

of wounds, 64; of disease, 582; accidental deaths, 22; missing and prisoners, 15; sent home as invalids, 1,558, or a total of 2,369 for the month.

In the latter part of February Kitchener made arrangements to meet Botha to discuss the methods and conditions of bringing the war to an end. The conference took place at Middelburg on February 28. Early in March, Kitchener, after communicating the results to and receiving directions from the home Government, sent a letter to Botha giving the terms Great Britain would make with the Boers to terminate hostilities. The letter stated that, in case of a general and complete cessation of hostilities and surrender of all arms on the part of the Boers, the British would at once grant an amnesty to the burghers for all *bona fide* acts of war, all prisoners of war would be brought back from St. Helena and Ceylon, civil administration would at the earliest practicable date replace the military, the privileges of self-government would be ultimately granted to the Orange River and Transvaal colonies, the Dutch and English languages were both to be taught as desired, a sum not to exceed £1,000,000 was to be set aside to repay inhabitants of these two colonies for goods requisitioned from them by the Boers during the war, no special war tax was to be levied on the burghers to meet the expenses of the war, and when representative government was granted to the colonies the franchise was to be granted in such a way as to secure the just preponderance of the white races.

Botha replied that he had advised his Government of the contents of the communication, but that he and his Government declined the terms.

From this time on to the present (April 1, 1901) the general situation has remained unchanged. Botha and De Wet and others are still in the field, and the end of the guerrilla warfare can not be foreseen.

STRENGTHS AND CASUALTIES.

The "Revue du Cercle Militaire" of February 23, 1901, says:

"The strength of the foreigners who have taken up arms for the Boers amounts to 8,725, distributed as follows:

	Independent organizations.	With Boer commands.
Frenchmen	300	100
Dutchmen	400	250
Russians	100	125
Germans	300	250
Americans	150	150
Italians	100	100
Scandinavians	100	50
Irishmen	200	
Boers from the British colonies		6,000
Total	1,650	7,025

"The Boer strength has greatly varied during the course of operations. According to information that seems trustworthy, it was as follows:

Dates.	In Natal.	In the Orange Free State.	Transvaal.	Total.
November 1, 1899.	12,000	12,000	5,000	29,000
December 1, 1899.	13,000	12,000	5,000	30,000
January 1, 1900.	13,000	12,000	3,000	28,000
February 1, 1900.	12,000	10,000	3,000	25,000
March 1, 1900.	8,000	8,000	7,000	23,000
April 1, 1900.	5,000	10,000	10,000	25,000
May 1, 1900.	4,500	9,000	9,000	22,500
June 1, 1900.		4,500	16,000	20,500
July 1, 1900.		4,500	15,000	19,500

"If we add the effective strength of the foreigners (8,725) to that of the maximum Boer strength (30,000) it is seen that the Boer forces in the field have never been over 38,725 men.

"With regard to the losses suffered by the Boers we can give only approximate numbers.

"The number of the killed is said to be 1,500, and that of the men *hors de combat* about 8,000. But we are led to believe that the total of the Boers *hors de combat* is about 10,000 men. The number of prisoners amounted to some 16,000. Under

these conditions the Boers have had, in round numbers, some 25,000 men killed, wounded, or made prisoners."

The following return of the military forces in South Africa was issued on December 6, as a Parliamentary paper:

Strength of garrison on August 1, 1899; reinforcements and casualties, etc., since, and present strength, December 1, 1900—noncommissioned officers and men only.

	Cavalry.	Artillery.	Infantry and mounted infantry.	Others.	Total.
Garrison on August 1, 1899 -----	1, 127	1, 035	6, 428	1, 032	9, 622
Reinforcements August 1, to October 11, 1899 (outbreak of war):					
From home -----		743	5, 620		6, 363
From India (some of these did not reach South Africa until after the outbreak of hostilities) -----	1, 564	653	3, 427		5, 644
Further reinforcements from October 11, 1899, to end of July, 1900:					
Regulars—					
From home and colonies -----	11, 003	14, 145	110, 292	14, 347	149, 787
From India -----	713	376	670		1, 759
Total regulars -----	11, 716	14, 521	110, 962	14, 347	151, 546
Colonials—					
From colonies other than South Africa -----	287	692	9, 788	267	11, 034
Raised in South Africa -----					28, 932
Total colonials -----	287	692	9, 788	267	39, 966
Imperial yeomanry -----					10, 195
Volunteers from United Kingdom -----		358	9, 995	434	10, 787
Militia -----		617	19, 753	256	20, 626
Total all arms sent to South Africa up to December 1, 1900, including garrison on August 1, 1899 -----					254, 749
Further reinforcements from August 1, to November 30, 1900:					
Regulars -----	1, 449	464	9, 055	610	11, 578
Militia -----			984		984
Total all arms sent to South Africa up to December 1, 1900, including garrison on August 1, 1899 -----					267, 311
Losses:					
Killed to November 30, 1900 -----					3, 018
Wounded to November 30, 1900 -----					13, 886
Died of disease or wounds, or accidentally killed in South Africa to November 30, 1900 -----					7, 786
In hospital in South Africa on October 2, 1900 (latest returns) -----					11, 927
Numbers left South Africa:					
For England, not invalids -----					7, 541
For England; sick, wounded, and died on passage -----					35, 548
Returned to India direct from South Africa -----					70
Returned to colonies direct from South Africa—					
Regulars, including two battalions to Ceylon -----					1, 884
Colonials -----					1, 172

Strength of garrison on August 1, 1899, etc.—Continued.

	Cavalry.	Artillery.	Infantry and mounted infantry.	Others.	Total.
Present strength of forces in South Africa December 1, 1900:*					
Regulars.....	11,600	12,700	105,300	13,293	142,893
Colonials (about).....					33,000
Imperial yeomanry (about).....					8,000
Volunteers (about).....					7,500
Militia (about).....					18,900
Total.....					210,293

* These figures do not allow for disbandment of colonials, etc., of which precise details have not been received.

The official table of casualties reported during the month of January, 1901, and the total casualties reported since the beginning of the war up to and including that month were:

Official table of casualties.

Casualties in action.	Killed.	Wounded.	Died of wounds in South Africa (included in wounded).	Missing and prisoners.	Total killed, wounded, missing, and prisoners.
Casualties reported during the month.....	140	503	52	352	995
Total casualties reported up to and including the month:					
Belmont, November 23, 1899.....	53	245	22		298
Colenso, December 15, 1899.....	141	762	22	227	1,130
Driefontein, March 10, 1900.....	63	361	19	2	426
Dundee, October 20, 1899.....	54	95	3	328	477
Elandslaagte, October 21, 1899.....	55	199	6	4	258
Enslin (Graspan), November 25, 1899.....	17	168	5	9	194
Farquars Farm and Nicholson's Nek, October 30, 1899.....	62	253	10	970	1,285
Johannesburg and Pretoria, capture of.....	23	166	9	43	232
Karee, near Brandfort, March 29, 1900.....	21	161	12		182
Ladysmith, relief of, February 19 to 27, 1900.....	263	1,621	83	12	1,896
Magersfontein, December 11, 1899.....	192	690	38	89	971
Monte Christo (Colenso), etc., February 15 to 18, 1900.....	14	188	3	4	206
Modder River, November 28, 1899.....	70	413	32	2	485
Nooitgedacht, December 13, 1900.....	66	187	12	345	595
Paardeberg, February 16-27, 1900.....	267	1,211	75	61	1,539
Potgeiters Drift, February 5-7, 1900.....	25	344	8	5	374
Pretoria, east of, June 11 and 12, 1900.....	14	144	5	4	162
Reddersburg, April 3-4, 1900.....	12	35	2	405	452
Rietfontein, October 24, 1899.....	12	104	4	2	118
Sannas Post, March 31, 1900.....	19	138	9	425	582
Senekal, May 29, 1900.....	38	134	6	12	184
Spion Kop, etc., January 17-24, 1900.....	306	1,114	58	318	1,738
Stormberg, December 10, 1899.....	28	58	1	633	719
Uitvals Nek, July 11, 1900.....	19	56	3	190	265
Willow Grange, November 23, 1899.....	11	67	2	9	87
At Ladysmith during investment—					
Battle of, January 6, 1900.....	178	320	29	2	500
Other casualties.....	66	316	32	12	394
At Kimberley during investment.....	38	139	4	4	181
At Mafeking during investment.....	69	162	9	42	273
Other casualties.....	1,484	6,305	661	4,872	12,655
Total casualties in action reported up to January 31, 1901.....	3,680	16,156	1,184	†9,032	28,868

† Of these, 310 officers and 7,689 men have been released or have escaped, and 4 officers and 92 men have died in captivity.

Other casualties.

	Officers, noncommis- sioned offi- cers, and men.
Reported during the month:	
Died of disease in South Africa	608
Accidental deaths in South Africa	31
Invalids sent home	2, 174
Total up to and including the month:	
Died of disease in South Africa	7, 793
Accidental deaths in South Africa	236
Invalids sent home:	
Wounded	5, 850
Sick	32, 164
Not specified	1, 081
Officers, not specified	1, 703

Total reduction of the field force, South Africa, due to casualties.

Reported during the month:	
Killed in action	140
Died of wounds in South Africa	52
Died of disease in South Africa	608
Accidental deaths in South Africa	31
Missing and prisoners	352
Sent home as invalids	2, 174
Total	3, 357
Total reported up to and including the month:	
Killed in action	3, 670
Died of wounds	1, 184
Prisoners who have died in captivity	96
Died of disease	7, 793
Accidental deaths	236
Total deaths in South Africa	12, 989
Missing and prisoners (excluding those who have been recovered or who have died in captivity)	* 937
Sent home as invalids	† 40, 798
Total South African field force	‡ 54, 724
Total reduction of the military forces through war in South Africa:	
Deaths in South Africa	12, 989
Missing and prisoners	937
Invalids sent home who have died	269
Invalids sent home who have left the service as unfit	1, 734
Total	‡ 15, 929

*This total includes a number of men reported "missing" who subsequently rejoined, but whose return has not yet been notified.

†Of these, 265 have died, 1,734 have been discharged from the service as unfit, and 996 are in hospital.

‡The difference between these two numbers is due to the fact that the great majority of the men invalided home have recovered and rejoined for duty. (See note †.)

EXTRACTS

FROM THE

REPORT OF MAJOR GENERAL ADNA R. CHAFFEE,

COMMANDING UNITED STATES TROOPS IN CHINA,

ON

MILITARY OPERATIONS IN CHINA.

EXTRACTS FROM MAJOR GENERAL CHAFFEE'S REPORT.

HEADQUARTERS CHINA RELIEF EXPEDITION,
PEKIN, CHINA, *November 30, 1900.*

ADJUTANT GENERAL, UNITED STATES ARMY,
Washington, D. C.

SIR: I have the honor to forward herewith the following report:

1. Report on the Russian troops, by Maj. W. E. Craighill, Fortieth Infantry, U. S. V.
2. Report on the Japanese troops, by Maj. Charles H. Muir, Thirty-eighth Infantry, U. S. V.
3. Report on equipment, supplies, etc., of the foreign troops, by Maj. S. M. Mills, Sixth United States Artillery.
4. Report on the French troops, by Maj. W. E. Craighill, Fortieth Infantry, U. S. V.
5. Report on the German troops, by Lieut. Col. J. T. Dickman, Twenty-sixth Infantry, U. S. V.
6. Report on the British troops, by Lieut. Col. J. T. Dickman, Twenty-sixth Infantry, U. S. V.
7. Reports on the medical organization, equipment, etc., of the various forces, by Maj. W. B. Banister, surgeon, U. S. V.
8. Report on the siege of the legation, by Lieut. J. R. Lindsey, Tenth Cavalry, aid-de-camp.
9. Report on the Paotingfu expedition and murder of American missionaries at that place, by Capt. Grote Hutcheson, Sixth United States Cavalry.
10. Report of march of troops composing Paotingfu expedition, by First Lieut. G. Soulard Turner, Tenth United States Infantry, aid-de-camp to General Wilson.
11. Record of events and current comment, by Lieut. Col. J. T. Dickman, Twenty-sixth Infantry, U. S. V.

Colonel Dickman on reporting to me was given general supervision of the duty of observing the foreign armies, their equipment, etc., and preparation of reports for the Department. In addition to this special assignment, he has been an able assistant in my intercourse and duties with the cooperating armies. Having completed his reports, he felt that his services would be of greater benefit to his country in command of his regiment in the Philippines than here;

therefore, at his request, I relieved him from further duty on my staff, greatly regretting to do so, however.

All the officers engaged in the observations, which are the basis of reports, have shown much interest in their work. Data on which to base (satisfactory) report of the siege has been difficult to obtain; no one appears to have kept record of events in such detail as to be of much value. The map which accompanies the report has been prepared under the personal direction of Lieutenant Ferguson, of the Engineer Corps, and is very accurate. From it may be seen the progress made by the besiegers between certain dates, and also the final situation. Attention is invited to the report of Captain Hutcheson, particularly to the portion referring to the murder of the missionaries at Paotingfu. I have no doubt that this report is as near a true statement of the horrible occurrence as is possible to obtain. The three officials recommended by the international commission for execution have been beheaded; the scene of the execution being upon the ground near the wall of the city, where Mr. and Mrs. Bagnell, Mr. William Cooper, Miss Morrill, and Miss Gould were murdered by the Boxers.

On September 1, 1900, I forwarded to your office report of operations of this expedition to include the occupation of Peking, August 14 and 15, so far as then known to me. I have also forwarded from time to time reports of commanding officers sent out on short expeditions for various objects since the date mentioned, and in view of consecutive record for reference briefly refer to them in this report, as follows:

1. By First Lieut. E. R. Heiberg, Sixth Cavalry, with 50 men of Troop A, in conjunction with a force of Bengal lancers of about the same strength. His force marched from Tientsin at 5 a. m., August 15, under instructions to make a reconnoissance and determine the location and the disposition of a force of Boxers reported to be only a few miles south of Tientsin. Lieutenant Heiberg was limited by his instructions to a march of 15 miles going and returning. A force of several hundred of the enemy was observed about 6 miles from Tientsin. Lieutenant Heiberg withdrew his command and returned to his camp in accordance with his instructions, but previous to doing so pushed up to within short range of the enemy without sustaining any loss whatever. The marksmanship of the Chinese was very poor.

2. The developments made by Lieutenant Heiberg, as above stated, were the prelude to a combined movement, August 19, by American (412), British (325), and Japanese (200) troops, under the command of Brigadier-General Dorward, of the English army. The enemy was encountered in the vicinity disclosed by the reconnoissance of Lieutenant Heiberg, and variously estimated from 3,500 to 20,000. Colonel Wint estimates them to have been about 5,000. Six troops of the Sixth Cavalry, under the command of Lieutenant Colonel Wint, constituted the American forces employed in this action. The march of the Sixth Cavalry was against the front of the position occupied by the Chinese forces. Colonel Wint vigorously attacked and drove the advance troops back about 1 mile, holding his ground until the force under General Dorward had enveloped the right flank of the enemy. When General Dorward attacked, Blocksom's squadron, which had been fighting on foot, mounted and charged hotly at the enemy, who was driven from the field in almost every direction. Forsyth's squadron, in part, supported Blocksom's, but engaged toward its own right as well. The Sixth Cavalry inflicted a loss of 150 dead and sustained a loss of 6 wounded. The action of our cavalry on this occasion was spirited and very praiseworthy for officers and men. This expedition resulted in much benefit. It broke up and practically dispersed for good a considerable force, which, by its presence more than from any power it had to do serious harm, caused alarm to be felt for the safety of Tientsin and the line of communications along the river above and below that city.

3. On August 27 Captain Forsyth, with two troops, I and K, scouted southwesterly from Peking up the Hunho River, under verbal instructions to locate coal mines and determine the condition of the country, the roads to the mines, and the facilities for mining coal. He returned to camp the same day, after marching 41 miles. The country traversed by the troops is very thoroughly cultivated, in vegetables and corn. The inhabitants were going about their labors, showed no fear or apprehension of the troops, and declared there were no Boxers in the vicinity. The coal mines are not worked except to fill orders; accumulations of mined coal in anticipation of sales is not the practice of the coal companies.

4. Being informed that a considerable quantity of rice was in store in the "Hunting Park," south of the city of Peking, and that a large force of Boxers was engaged in removing the same, I directed Captain Forsyth to take three troops of his squadron and make an investigation. He marched on August 28 with Troops I, K, and L, and decided to strike for the rear of the situation—at the place, as informed by the guide, to which the rice was being carried from the granaries. On his way he was fired upon. He dispersed the enemy's force, which showed up at three or four points, and during the day killed 32. Our troops sustained no loss. The granaries contained about 200,000 pounds of rice; it could not be brought away. A quantity of old arms, lances, spears, and 1,000 pounds of powder were destroyed, and the village in which the Boxers had been quartered was burned. A few days later Captain Forsyth was sent again to the same park and ascertained that Boxers or others were still engaged in removing the rice from the granaries; we did not have transportation to move it into the city, so the rice was burned.

5. Having arranged for the purchase of a herd of sheep, Lieutenant Hyer, with Troop L, was sent to escort it to Peking. He marched at 1.45 p. m., September 3, and arrived at Shaho, north of Peking, at 7.30 p. m., 24 miles. The herd of sheep which he was to conduct was not at Shaho, for the reason, as alleged by the party who was to gather it, that a considerable force (about 500) of Imperial troops was in the suburb (being refused admission to the walled city) of Changpingchow, 6 miles north of Shaho; in consequence of which it was unsafe to collect the sheep. Lieutenant Hyer decided to investigate the report the next day, and, if possible, open the road for the sheep. He marched at 6 a. m., September 4, and, skilfully screening his approach to the place by marching through cornfields, gained close contact without alarming the enemy. The surprise was complete and effective. Twenty-five were killed, the remainder dispersed. One hundred and fifty rifles of various patterns were captured and destroyed. The personal flag and clothing of Chang, military governor of the province of Hupei, were also taken. The enemy retreated to Nankow, where it joined a larger force. In this affair, Lieutenant Hyer showed himself capable in both skill and enterprise in the attack.

6. General Dorward, the senior officer at Tientsin, having received information "that the town of Tuliu, 23 miles distant from Tientsin, is occupied by Boxers who have long held their headquarters at this place," ordered an expedition to operate against the town in three columns. The "canal column" was 750 strong, of which 200 were United States troops (Companies C and D, Fifteenth Infantry), commanded by Maj. E. B. Robertson. The expedition marched from Tientsin September 9, and arrived at Tuliu September 10. The place was occupied without opposition. A portion of the village was destroyed by fire during this day and night, and the remainder, two pawn-shops specially excepted, were destroyed by the British forces detailed and left for that purpose, when the troops marched en route to Tientsin. On the 12th the boats carrying rations for our troops failed to arrive, and in consequence the men were without food or blankets. The British officers hearing of the situation, promptly gave of their supplies, provided blankets, also food for supper and breakfast the following morning. The detachment returned to its camp September 13.

7. Being informed by some missionaries that there were native converts in danger in several towns to the eastward of Peking, the following letter was addressed to the commanding general of the First Brigade:

HEADQUARTERS CHINA RELIEF EXPEDITION,
PEKIN, CHINA, *September 10, 1900.*

COMMANDING GENERAL FIRST BRIGADE,
China Relief Expedition.

SIR: The major general commanding directs me to inform you that it has been reported to him that in the vicinity of Watsz (Wa-za), a village about 35 miles southeast of Peking, there are several Chinese Christians in hiding who are reported in peril of their lives because of Boxers in that locality. They are supposed to be within a radius of 8 or 10 miles of Watsz. The following-named villages have been named as being in the vicinity: Shinschwowz, Liuchuang, Changkichang, Pingku, Sanho, the last named the market town of that section. The Chinese women have been sent to the place (Watsz) to inform the converts that troops will leave here Thursday morning, the 13th instant, and will be at Watsz ready to return to Peking Saturday morning, the 15th instant, and will escort to Peking any converts who may report to the commanding officer at that time and place. Please send squadron of cavalry, say three troops, via Sanho, to arrive at Watsz Friday evening or Saturday morning, from whence the troops will return here. The commanding officer should be informed that, from reports made by missionaries, Boxers may be found

in several villages, the number being stated to be 20 to 40 in each village. Also, that near Shieneshien, about 20 miles from here and not far from returning route, 3,000 to 4,000 Chinese troops. When practicable to do so the commanding officer will make it known that we have no wish to harm or disturb peaceful and orderly Chinese people; that if the Christian Chinese are protected by the people and allowed to remain in their homes and at work troops will not fire unless first fired upon. If the commanding officer can secure cattle or sheep, or both, in sufficient numbers to warrant his attention by purchase he may do so; the owners to come here to be paid. If a considerable number is found and the owners will not sell, he may seize and notify the owners to come here for pay.

Very respectfully,

GROTE HUTCHESON,
Captain, Sixth Cavalry, Acting Adjutant General.

Captain Forsyth, commanding the Third Squadron, marched at 7.30 a. m., September 14, but owing to the difficulty in crossing the Peiho, pursued his course in an opposite direction to the one indicated in my letter to General Wilson. He was accompanied by Mr. Arment, a missionary, and several native Christians as guides. At Chudien, a house was searched by Mr. Arment; the owner had fled and was said to be a Boxer. A quantity of ammunition, firearms, and stores were found and destroyed, and the house burned. At Watsz Chinamen were seen to run around a corner of a wall with guns (?) in their hands. They were pursued and one of them killed, when it was found that what was thought to be a gun was a stick. As the squadron approached the village of Hsuch-Chuang-tza, it was fired upon from a wall of a large inclosure, and the fire promptly returned by the troops; the party escaped. During the firing one of the Chinese guides got forward and climbed upon the wall. Being armed, he was taken by the troops to be a Boxer, fired upon, and killed. The action is hardly regrettable, for the guides were out particularly for looting, and had been cautioned to remain back of the advance guard. This property, and one on the opposite side of the road owned by the same man, was searched, and evidence found that the owner belonged to the Boxer party. Captain Forsyth refused to allow the Chinese guides to pillage the place, and compelled the return of property taken out by them. When all this had been done, both places were set on fire. Not many miles from this town the advance guard was again fired upon. In this skirmish one Boxer was killed and one fatally wounded. No other opposition was made, though several villages were visited. The squadron

returned to Peking on September 19, bringing in fourteen Christian Chinese who were not particularly anxious to leave their homes.

8. In the vicinity of Patachow, about 15 miles west of the city of Peking, are eight temples. It has been the custom for several years for foreign ministers to rent temples there and live in them during the summer months. The British Government erected buildings in that vicinity for its minister, which had been completed only a few months before the siege of the legations. These buildings were destroyed by the Chinese during the time of the siege. It was reported the temples had become the headquarters of a considerable force of Boxers; also that they had carried there much valuable property, which seemed an especially important matter to some. Not at all interested in the valuables to be secured by the capture of the temples, I cooperated in the movement for military reasons only; it being desirable to free the country in the vicinity of the route to the coal mines of the presence of any inimical party. My instructions to General Wilson were as follows:

HEADQUARTERS CHINA RELIEF EXPEDITION,
PEKIN, CHINA, *September 15, 1900.*

BRIG. GEN. JAMES H. WILSON,

Commanding First Brigade.

GENERAL: The presence of Boxers, perhaps Chinese troops, to the westward of Peking, in the vicinity of the Hunho River and temples at Patachow, being an obstacle to the passage of coal supply from the mines to Peking, the major general commanding the China relief expedition directs that you proceed to expel from the localities indicated whatever of the forces referred to as may be found. To this end he directs that you march to Linhochow (about 10 miles) to-morrow afternoon, with two battalions of the Ninth and one battalion of the Fourteenth, and such cavalry as you may have in camp. At Linkochow you will be joined by 500 British infantry, 4 guns, and some cavalry. From Linkochow proceed up the left bank of the Hunho to Sanhiatim (about 15 miles), where it is believed your force may arrive at an early hour on the 17th, if the march from Linkochow be made about 3 a. m. It is understood that there is located at Sanhiatim a Chinese arsenal, which should be left in an inoffensive condition. At Sanhiatim you will be in a position to expel the Boxers at Patachow temples by a march toward Peking. Three days' rations will be taken by the troops (two days on pack train). The British cavalry will reconnoiter two-thirds of the distance from Linkochow to Sanhiatim to-day. The officer conducting the reconnoissance will be found in Linkochow. The foregoing instructions in reference to your march are to be considered by you as indicating the purpose of the expedition only and the general course of your march. Execution of detail

at your discretion. The lives and property of inoffensive and orderly Chinese will be protected as far as possible.

Very respectfully,

GROTE HUTCHESON,
Captain Sixth Cavalry, Acting Adjutant General.

Quite a large number of persons were found occupying the temples (no doubt many of them had sought shelter there from Pekin), who were driven out without loss to our troops.

I invite attention to an interesting extract from the report of Major Quinton, commanding battalion, Fourteenth Infantry.

* * * * *

Upon my arrival at this village I was informed that I would be furnished with a guide, and that the guide would be instructed to lead me, with the battalion, to certain heights immediately in rear of a series of Buddhist temples that were supposed to be occupied as rendezvous for Boxers in force. I was further instructed to conceal the force under my command, upon arrival at the summit of the trail, as Japanese troops were to attack the Boxers in front, and that it would be my duty to either capture or kill those who might attempt to escape. Breaking bivouac at 2 a. m., we arrived at the designated village at 5.45 a. m., and here, in the furtherance of the plan before alluded to, I was furnished a guide, Mr. H. G. Squiers, a very intelligent gentleman and reliable man, formerly an officer of the Seventh U. S. Cavalry, and now secretary of the American Legation at Pekin. In conversation with Mr. Squiers I learned that a force of Sikhs was ahead of me, and had about forty-five minutes' start. I further learned that he could take a route that would place my battalion in advance of these Sikhs, if I desired, as the Sikhs had, by some error, deviated from the proper trail to be followed. I begged him to place my battalion upon this trail, and as a result was compelled to march my battalion without any halt for a greater period than two hours. The Sikhs, however, discovered their error, turned the head of their column to the left, and, as a result of this movement, the American and Sikh soldiers—the latter being celebrated, being all hill men, as the "climbers of the world's roof"—found each other at the base of the mountain, about 1,800 feet in height, and presenting an angle of about 50 degrees. The American soldier was handicapped in the climb, as he carried with him on his person rations for one day, 100 rounds of ammunition, a blanket roll, and, as before remarked, proceeded to the climb without any halt for rest. The contest for supremacy was a silent and friendly one, Sikh and American each doing his very best to reach the summit first, and I am more than pleased to state the American soldier won out, reaching the top of the mountain first, the head of the Sikh files, however, being a close second. From the summit a glorious panoramic view was presented, upon which our eyes feasted only briefly, a series of shots from the temples beneath directed upon us as a reminder that we were there for purposes other than viewing scenery, however grand. We knew, before making the climb, that our forces had been

discovered, as five men, possibly a Chinese picket, had been seen by our men while we were still in the valley, and at least fifteen minutes before we reached the base of the mountain. Immediately below us was a large white pagoda, surrounded by handsome buildings, and inclosed by a wall apparently eight to ten feet in height. This pagoda stood up from the valley about 150 feet. The grounds were fairly alive with men, and upon these I directed a close fire that compelled them to seek cover and avenues of escape.

* * * * *

Meanwhile the fire was kept up on the temples, which were now unresponsive. Noting this, I sent 12 men down the hill to occupy a small knob immediately between the ground we were standing upon and the large white pagoda in the American concession, and, to all appearances, only about 200 yards from the pagoda. It being evident from the fire of the 12 men that the Boxers occupying the pagoda grounds were running out, I then directed Lieutenant Murphy, commanding Company L, Fourteenth Infantry, to proceed to the knob (marked X on the map herewith appended), and make the attempt to occupy the pagoda and grounds inside the wall, while I would hold the fire down from the commanding position that I occupied should it open. This duty Lieutenant Murphy performed, as usual, in a very handsome manner, occupying the pagoda and grounds, and capturing, in so doing, two Gatling guns (old pattern), a large number of gingals, and almost every description of obsolete weapon that may be imagined. These guns were all placed to sweep avenues of approach from the front, and were liberally supplied with ammunition. The Boxers leaving the pagoda sought refuge down in the valley in a walled cemetery some 600 yards distant from the pagoda. There was no longer any fight in these men. They were evidently seeking cover and safety, as they permitted the Ninth U. S. Infantry, upon whose flank they were, and not more than 250 or 300 yards distant at that, to pass them unchallenged by even a single shot. I was proceeding against them with the two companies under my command, when arrested in my movements by the general commanding, who stated that, in his opinion, any further movements against these men would be inhuman, in which opinion I coincide. Still, the American troops are the only troops now operating in China at this particular juncture that would have spared the lives of these men, and I trust they will prove themselves deserving of the clemency shown them by him.

* * * * *

The enemy's loss is variously returned. I only know 9 killed. Am altogether unable to give estimate as to his wounded.

* * * * *

Lieutenant Colonel Dickman also refers in his diary to this expedition. General Wilson refused to allow the town to be burned, while he held command of the military forces, in retaliation for burning foreign missions and summer home of the British legation, as was the wish of the British minister present on the ground.

On the morning of the 18th General Wilson discontinued cooperation with the British force, the object of the expedition having been accomplished, and put the United States troops in march for Peking, where they arrived during the afternoon. The large white pagoda referred to by Major Quinton, often spoken of before the date of this expedition as an object of sufficient interest to foreigners to induce them to ride 15 miles to see, being a tall pile of stone, having no part in the Boxer movement and holding no resentment for foreigners, has been destroyed by Christians. The bells, which were suspended from lofty points and rung only by the passing winds, are welcome souvenirs of an occurrence denounced by Dr. Morrison, correspondent of the "London Times," as vandalism. Dr. Morrison is in error, however, when he charges vandalism on General Wilson because of the destruction of the pagoda. General Wilson refused to permit the destruction of anything while he remained on the ground.

9. While on my way to Tientsin, September 27, I sent a company of the Fourteenth Infantry, stationed at Matow, to investigate the report that there was a large number of Boxers about 8 miles south of the place; a German officer and 8 men out in quest of mules and horses had been fired upon. The officer reported a large force of Boxers in the place. Captain Eastman, commanding the company sent out, was not opposed; he found no sign of a large party having been in the town. I think some of the Chinese of the town fired on the small party of Germans to frighten them away. Every village resorts to more or less firing, usually at night, as a warning to robbers.

10. October 9 some villagers north of the river complained to the commanding officer of the Japanese detachment at Matow that Boxers had raided their town and burned their homes. On October 10 a detachment 150 strong, American, English, and Japanese troops, under command of a major of the Japanese army, marched 8 miles into the country. At this point they were assured by the people that the village just in advance of the column was occupied by Boxers—all Boxers. On near approach to the village it was discovered that French and Italian flags were flying from a church spire or lofty point and from some of the houses. The village was surrounded by a wall in which were many loopholes. On entering the place a detachment of Italian sailors, commanded

by a lieutenant, was found occupying the town, and it was ascertained that the village had been besieged for a couple of months and the inhabitants (native Christians) rendered destitute. The converts had begun foraging on neighboring villages supported by the infantry to obtain subsistence for themselves. In turn, the villages resenting the action of the converts, hostilities ensued, some of the villages being burned.

11. November 22 messengers arrived from villages about 18 miles south to make complaint against robbers and house burners, and asked that American soldiers be sent to drive them away. Captain Cabell with his troop was sent, the messengers guiding them. He succeeded in surrounding the "compound" before daylight and killed eight of the robbers—all that were in the place. The women and children were got out unhurt. Captain Cabell made certain of the character of the party inside the compound before he attacked the place, by inquiry of the chief men of the villages near by.

The foregoing comprise the events where United States troops have been used since the fall of Peking, and the purpose therefor.

About 16,000 troops arrived at Peking August 14 and 15. On September 11 there were 30,700 troops in Peking, according to verbal statement by generals in conference on that date. At this time the number of troops in the vicinity of Peking is about as follows:

Japanese	3,200
French	4,000
German	6,100
British	3,000
American	1,400
Russian	250
Total	<u>17,950</u>

For about three weeks following arrival of the relief column at Peking the condition in and about the city and along the line of communication was bad. Looting of the city, uncontrolled foraging in surrounding country, and seizure by soldiers of everything a Chinaman might have, as vegetables, eggs, chickens, sheep, cattle, etc., whether being brought to the city or found on the farm; indiscriminate and generally unprovoked shooting of Chinese, in city, country, and along the line of march and the river—all this did not tend, as was natural, to gain for the troops the confidence of the masses,

with whom, it is certain, we have no quarrel, but whose labor we needed. It is safe to say that where one real Boxer has been killed since the capture of Peking, fifty harmless coolies or laborers on farms, including not a few women and children, have been slain. No doubt the Boxer element is largely mixed with the mass of the population, and that by slaying a lot, one or more Boxers might be taken in. But when making allowance for occasional killing of a Boxer in this way, it was not in my opinion, creditable for the United States troops to continue to wage hostilities in such a manner. I repeatedly instructed that our troops must be fired upon before firing a shot, and generally that property should not be destroyed. I have noticed that precisely in accordance with the degree of restraint put upon the soldiers harsh treatment of the mass of the population ceased; with protection given to homes and business, fear has vanished and confidence been established. The Japanese and American sections of the city filled rapidly very soon after the occupation of the city, and later, the English section, the people moving from other parts of the city into the sections policed by troops of the nations named. From appearance the Chinese population is more friendly, seemingly has less fear of being harmed by the troops of Japan than any other foreign nation represented in Peking. The commander of the Japanese troops was the first to make known to the people that his purpose was not indiscriminate war, and that if the population remained quiet and orderly in the Japanese section all living there would be protected. That section of the city is densely crowded; there also trade was reestablished soonest. The section of the Chinese city under American control is now greatly overcrowded and very orderly.

The following correspondence is quoted for information:

On behalf of the inhabitants and gentry of that part of the Chinese quarter in the city of Peking, at present under the military jurisdiction of the United States Army, I have sincere pleasure in presenting this testimonial of appreciation and thanks to John C. F. Tillson, captain, Fourteenth Infantry, U. S. A., American member of the international board of police commissioners, and provost marshal, American district, Chinese city in Peking, for the able and efficient manner in which he has performed his duty and protected their lives and property.

Given at Peking, under my hand and seal, this 8th day of November, 1900.

LI HUNG CHANG,

*Imperial High Commissioner and Minister Plenipotentiary,
Senior Grand Secretary, Grand Tutor to the Heir Apparent,
High Commissioner of Commerce, Viceroy of Chi-li,
Earl of Su yi, etc.*

OFFICE OF PROVOST MARSHAL,
AMERICAN DISTRICT, CHINESE CITY,
PEKIN, CHINA, *November 9, 1900.*

TO HIS EXCELLENCY, LI HUNG CHANG,

Imperial High Commissioner and Minister Plenipotentiary, Senior Grand Secretary, Grand Tutor to the Heir Apparent, High Commissioner of Commerce, Viceroy of Chi-li, Earl of Su yi, etc.

SIR: I have the honor to acknowledge receipt of your excellency's very kind letter of commendation of the 8th instant, and to return my very sincere thanks.

The army of the United States of America enjoys the proud distinction of being the only army in the history of all the world that has never been used as an instrument of tyranny.

If, in my brief exercise of arbitrary power I have done naught to impair the reputation of the army of my country, and have, at the same time, merited your excellency's esteemed commendation, while endeavoring to extend to your people, as far as possible, that protection to life and property, and that equality before the law so dear to my countrymen, I am indeed proud.

I have the honor to be, sir, your excellency's most obedient servant.

JNO. C. F. TILLSON,

Captain, Fourteenth Infantry, American Member of the International Board of Police Commissioners, Provost Marshal, American District, Chinese City of Peking.

HEADQUARTERS CHINA RELIEF EXPEDITION,
PEKIN, CHINA, *September 21, 1900.*

* * * * *

3. Capt. Frank De W. Ramsey, Ninth Infantry, acting chief quartermaster, will transfer from time to time to Capt. Ira L. Fredendall, assistant quartermaster, U. S. V., quartermaster First Brigade, all moneys which he has on hand or may receive from the sale of looted or stolen property.

This money is to be expended under the exclusive direction of the commanding general First Brigade, for the establishment and maintenance of civil order and for the protection of those portions of the city of Peking under American jurisdiction and control, and for the subsistence of deserving destitute of said sections.

All disbursements will be made upon duplicate vouchers approved by the commanding general First Brigade. A monthly account current of receipts and expenditures will be forwarded to the headquarters of the expedition for transmission to Washington.

* * * * *

By command of Major General Chaffee:

GROTE HUTCHESON,

Captain, Sixth Cavalry, Acting Adjutant General.

Until the arrival of an adequate supply of our own transportation, we were compelled, as were other armies, to take possession of mules, carts, and ponies to get forward our supplies. It is impossible to return this property to rightful

owners, no record of place where obtained having been kept, so to rid the command of what is now a nuisance, the carts, mules, etc., will be sold.

Native converts have suffered loss of life and property at the hands of the Boxer in many towns. The Reverend Mr. Tewksbury has adjusted some of this loss in the vicinity of Tungchow, as may be seen from the correspondence which is inclosed, marked "B."

The "scheme of settlement" submitted to Minister Conger by Mr. Tewksbury (copy inclosed) is not readily analyzed throughout, if one desires to ascertain the value put upon one life, or whether or not one home destroyed was of greater value than any other house destroyed. Neither does it appear what shall be the value of the chapel to be provided by the towns, or how much land shall be included in a cemetery. If it be assumed, as an example, that land is worth 50 taels per acre, and the chapel to be provided valued at 200 taels, the cemetery valued at 100 taels, it will be seen that the value put upon one life varies greatly for some of the towns, and may, perhaps, be regarded as unjust. At Lungwang eight lives are reported in the "scheme of settlement" at 300 taels, 3 acres of land, and one cemetery—68.75 taels per life. At San Chin Fang, two lives at 50 taels—25 taels per life. At Hun T'un, two lives at 3 acres of land, a chapel, and a cemetery—225 taels per life. At Yen Chow, one life at 4 acres of land, a chapel, and a cemetery—500 taels per life.

The "scheme of settlement," as it appears to me, is very much in the line of business called "squeeze," which we hear a great deal about in China.

As a further step toward compensating for losses sustained, some of the missionaries have obtained possession of property of considerable value, which has been disposed of at private or public sales. The proceeds, as I understand it, are to be applied to the support of their people. I have heard the statement made that Monsignor Favier, Catholic bishop, has requested the French Government to deduct from its claim for indemnity the sum he has obtained in the manner indicated.

FORBIDDEN CITY.

As reported by telegraph at the time, formal entrance into the Forbidden City was made August 28, the United States forces being represented by 350 men—detachments of artillery,

cavalry, regiments of infantry, and the marines present in Peking August 14. The place is about a half mile square, and is surrounded by a wall about 25 feet high. Entrance is had by four gates, north, south, east, and west, of which the principal one is the south gate. On taking possession of the Imperial City, which surrounds the Forbidden City, and is also inclosed by a wall, guards were posted at the four gates of the Forbidden City; 3 Japanese guards, 1 American, the latter at the south gate. With the Japanese general, I opposed occupation of the Forbidden City or entrance into it, unless immediately evacuated and the gates closed and guarded, which was agreed to. My purpose was to prevent looting of the place. The ministers in conference with the generals were unanimous in the opinion that the grounds should be occupied, at least formally, for the reason that if this was not done, the Chinese people would be made to believe that the cooperating armies had met with defeat at its walls. It may be that the great bulk of the population, which is outside of Peking, will never be informed of the occupation, in order to keep their faith fixed as before, and if really so ignorant, as supposed, of what is taking place in the empire, they still believe the place withstood all assaults.

I believe but little looting has been done inside the forbidden City, but have heard of articles having been offered for sale which were claimed to be from there. The statement has been made that the American and Japanese guards are in collusion, but I do not believe it. Attention is invited to Inclosure C (reports of Lieutenants Lindsey and Reeves).

RAILROADS.

At this date report is current that the railroad will be repaired and in operation to Peking about December 15, four months after the armies arrived in the city, and probably two months later than necessary had the matter been taken hold of in a business-like way soon after the battle of Tientsin. What serious objection there could be to the old management repairing and operating the road for use of the cooperating armies, and be compensated for service rendered, I have not been able to discover; but whether the objection was or was not particularly important, it is certain any old management, if given countenance and protection (little of either being required), would have succeeded better than has the method

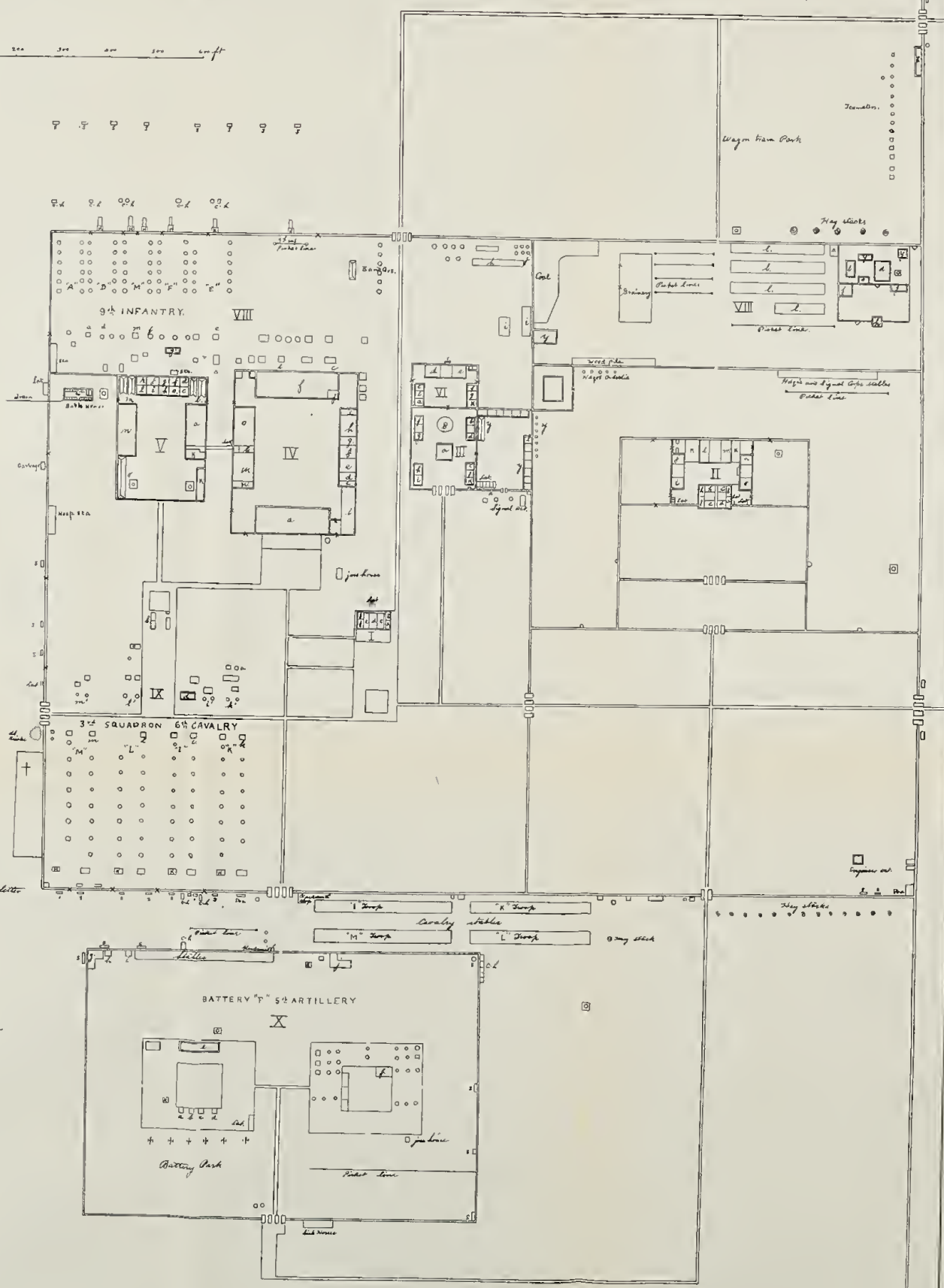
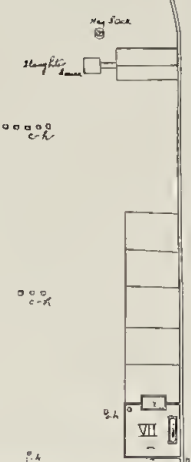
adopted. As the question has appeared to me, national jealousy and play for advantage in the situation has had more to do with this important matter than has the common interest of all for good communication with the seacoast. Soon after arriving at Peking, the British took possession of the road at the junction with the Paotingfu road, presumably to protect the interests of invested English capital; repairs have been made for a short distance south of the junction and north to the Peking station. At the present time the road is being extended by the British into the city, passage of the roadbed through the wall being a few hundred feet west of the south gate of the Chinese city. The station will be along the west wall of the "Temple of Heaven," directly in front of the entrance to the grounds of the Agriculture Park, occupied by our troops. Fortunately for us, as for others, a moderate stage of water has continued in the river to date, and the chief quartermaster has taken full advantage of it, securing junks wherever to be found, in which he could forward supplies to Tungchow. We have very little left below that place, and as a consequence we are not dependant upon the railroad for transportation of anything necessary for use of the command for several months. Over 5,000,000 pounds are still at Tungchow—grain, hay, coal, wood—to be transported by wagon to Peking. Slow progress is being made toward repair of the Tongku and Shanhaikwan branch of the railroad, which has for us special interest because of the fact that mail must come by that route during the winter.

Colonel Humphrey was sent to Chingwantao, the landing point, to effect arrangements for the landing of our mail and such supplies as may be received during the winter. A landing pier will have to be constructed, and to insure for us right of way rather than be dependent on the courtesy of others, Colonel Humphrey was authorized to pledge an equitable share of the necessary expense to be paid by the United States. He made arrangements to cooperate with the British in the construction of landing facilities. The bridge over the Peitaho will not be reconstructed for many months, and it seems probable that the mail will have to be transported in carts for about 30 miles of the road not yet repaired.

TELEGRAPH.

The telegraph line has been reconstructed all the way to Tongku. The poles used are the best obtainable, and for the

TEMPLE OF AGRICULTURE



Notes

- | | | | |
|--|--|---|--|
| <p>I
 a Office of Commanding General
 b Adjutant General
 c Chief Clerk
 d Chief Signal Officer
 e Chief Surgeon
 f Judge Advocate General
 g Inspector General</p> | | <p>V
 h Dispensary
 i Store for Carbine & Co
 j Ammunition
 k or Ammunition
 l Officers Mess
 m Attendants & kitchen
 n
 o</p> | |
| <p>II
 a Commanding General
 b Lt. Kincaid
 c Lt. Harper
 d
 e
 f Col. Hastings
 g Capt. Hutchison
 h Lt. Stearns
 i
 j Lt. Rivers
 k
 l Officers Mess
 m Officers Mess
 n Kitchen</p> | | <p>VI
 a Col. Roberts
 b Lt. Col. Colledge
 c Office
 d
 e Officers Club
 f Office room
 g Officers Mess</p> | |
| <p>III
 a Capt. Montgomery
 b Lt. Hastings
 c Major Leighton
 d Major Lord
 e Lt. Ferguson
 f Major Byrne
 g Officers Mess
 h
 i
 j
 k
 l Engineer Office</p> | | <p>VII
 a Veterinary Surgeon
 b Wheelwright
 c Saddler Shop
 d Blacksmith Shop
 e
 f Carpenter Shop
 g Blacksmith Shop
 h
 i
 j Computation Office
 k Kitchen Mess for Ammunition
 l Ammunition Stables</p> | |
| <p>IV
 a Sales and issuing Commission
 b Bakery
 c Telegraph Office
 d Office of Chief Quartermaster
 e Chief Quartermaster
 f Chief Quartermaster
 g Chief Quartermaster
 h Chief Quartermaster
 i Chief Quartermaster
 j Chief Quartermaster
 k Chief Quartermaster
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 u Chief Quartermaster
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 x Chief Quartermaster
 y Chief Quartermaster
 z Chief Quartermaster</p> | | <p>VIII
 Company divided by letter
 a Commanded by small letter
 b Regimental Am. Office
 c Adjutant Office
 d Officers Mess
 e Hospital store house
 f West house
 g West house
 h West house
 i West house
 j West house</p> | |
| <p>V
 a Mess
 b
 c
 d
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most part good, For a month past we have had excellent service to communication with cable office. Our cable across the Peiho at Taku is occasionally interfered with by the larger of the "lighter ships" entering the river, but the interruptions thus far have not been the cause of much delay in the transmission of messages.

I inclose for your information map of Agriculture Park, wherein are established my headquarters, our storehouses, the hospital, etc., and the camps of the light battery, squadron of Sixth Cavalry, and the headquarters and five companies of the Ninth Infantry. The American troops are the only soldiers at Peking quartered in tents. The high walls which divide the park into plats of various sizes break the force of the winds quite effectively.

Military movements in the province of Pechili for the past two months have been confined chiefly to such as were ordered by Field Marshal Count von Waldersee, the chief of all being the Paotingfu expedition, about 8,000 men strong, in two columns of about equal strength; one from Peking by the direct road, the other from Tientsin, following the main road between the two places. The return of a considerable number of these troops to points of departure was in three columns and by different routes from the roads advanced over. Another expedition of consequence, because of its strength, is one to Kalgan, 1,200 strong, which is now returning from that place. I have been informed on good authority that the imperial troops anywhere on the line of march of the foreign forces have been instructed to refrain from all hostilities and to retire from their presence. In some instances the Chinese troops were successful in getting out of the way, while in others they have suffered some loss. The United States troops did not participate in either of the expeditions referred to, it being my opinion that the less the disturbance of the country by military operations, the sooner would arrive the opportunity to diplomatically arrange full reparation for all wrongs committed, and for the further reason that every indication pointed to the utter collapse of organized armed opposition by the Chinese. As regards Boxers, the viceroy of the province has stated that he has issued strict instructions to the officials in the various towns to put them down. Whether he has done so or not, or whether complied with if such instructions were issued by him as claimed, a generally improved

condition of affairs in the surrounding country as regards order is shown by the large decrease in the number of reports of disturbances charged to Boxer account. There are no foreigners living outside of the protection by the troops, which may account for the quiet which prevails to some extent, but notwithstanding this, I am disposed to credit the viceroy with a disposition to suppress what remains of the Boxer element in this province; in this view I am nearly alone.

Very respectfully,

ADNA R. CHAFFEE,
Major General, U. S. V.,
Commanding United States troops in China.

EXHIBIT A.

[English translation.]

ARMY HEADQUARTERS IN EAST ASIA,
 WINTER PALACE, PEKIN, CHINA, *November 27, 1900.*

Army headquarters has the honor to respectfully submit to your excellency, in compliance with the request of October 22, a copy of a letter of November 23 from Colonel Garioni, of the Italian forces, and the answer, sent to-day.

SCHWARZHOFF.

To GENERAL CHAFFEE,

Commander in Chief United States troops in East Asia, Peking.

[English translation.]

HEADQUARTERS ROYAL ITALIAN FORCES IN EAST ASIA,
 PEKIN, CHINA, *November 23, 1900.*

I have the honor to respectfully submit to your excellency an answer to your letter of October 25, 1900.

The facts which caused the appearance of a column consisting of English, American, and Japanese troops in Kiakiatao, a Christian village, are as follows:

On October 9 a platoon of our forces, belonging to a detachment which had occupied Kiakiatao on the beginning of said month for the protection of the Christian mission, left the village, accompanied by some Catholics, for the purpose of gaining information as to whether forage and other supplies could be obtained for the troops in the surrounding country. On the march through one of the neighboring villages they were fired upon and were obliged to reply and to set fire to the village and destroy it.

On the following day the mission was attacked by armed inhabitants of the neighborhood. Our detachment notified the headquarters in Tungchow of this event, meanwhile making preparations for a proper defense.

Captain Lieutenant Civalleri came to their assistance from Tungchow, but only arrived after the attacking party had been repulsed and had disappeared.

Immediately after this, Captain Civalleri, still being in Kiakiatao, the said international column arrived, which had left Matao in a hurry, as the inhabitants of the village which had been destroyed the previous day asked for assistance, saying they were pursued by Boxers.

The facts are as follows:

The Catholic mission amounts at the present time to about 1,200 persons, half of which are coreligionists who took refuge there from other villages, where in the past few months their houses had been destroyed and their relatives killed. The mission itself had been subjected during nearly three months to continuous attacks by the Boxers and also to the heavy fire of imperial artillery.

The refugees from the other villages took courage at the approach of the European troops and made claims for provisions and other things taken from them, and probably undertook pillaging expeditions, but after the Italian detachment had occupied Kiakiatao they were prohibited from going out armed, and their claims, which the detachment commander supported, were made lawful.

The commander of the international forces (a Japanese major), who in the meantime had returned to Matao, issued a proclamation by which he prohibited the inhabitants of the neighborhood from bringing provisions to the Catholics in Kiakiatao and ordered them to demand the return of all that they had brought. He promised them assistance, and in case of necessity said he would attack the mission.

Captain Lieutenant Civalleri protested against this proclamation in a conference of the commanders of the different troops in Tungchow, and was assured by the Japanese commander of the village that the major who had issued the proclamation had been recalled to Japan.

The necessity of the service demanded a withdrawal of the detachment from Kiakiatao, but I sent from time to time detachments there so as not to leave the mission wholly unprotected and a prey to the enemy.

GARIONI,

Commander in Chief Italian troops in East Asia.

TO FIELD MARSHAL COUNT VON WALDERSEE,

Commander in Chief International Army, Peking, China.

[English translation.]

ARMY HEADQUARTERS IN EAST ASIA,

WINTER PALACE, PEKIN, CHINA, *November 28, 1900.*

In reply to your letter of November 23, I have the honor to say that it seems to be very imprudent to give such extensive power to detachments sent out a great distance, as in this case. I do not consider it right that troops undertake to support claims of natives for lost property and to exercise revenge for damages. The justness of the claims should be thoroughly examined, as it is easily possible that the troops might be used as a means of satisfying a revenge. A quieting down of the Chinese population, which is urgently desired, will never be accomplished in this manner.

VON WALDERSEE,

General Field Marshal.

TO COLONEL GARIONI,

Commander of the Royal Italian Expedition, Peking.

EXHIBIT B.

PEKIN, CHINA, *September 19, 1900.*

E. H. CONGER, ESQ.

DEAR SIR: I am expecting to go to Tungchow soon and wish to ask your help in regard to affairs in one or two villages near there. There has been a movement in some of the villages to settle up some of the claims for destruction of Chinese Christians, etc. I am thinking it may be best to visit these places in person and see if the matter can be adjusted, and possibly payment secured and a measure of protection secured to the villagers. Thus our Christians may be allowed to return in peace, reap their crops, and secure some part indemnity for their losses.

Do you think we can secure a small guard to accompany us on some of these trips? We should go out from Tungchow and in no case be gone over one night. We do not wish a large military escort, as we desire it to meet and talk with the people, not to frighten and destroy, unless of course we meet with armed men. I wonder if you will ask General Chaffee if he is willing to give us a small escort either from Pekin of cavalry or ask Captain Dunlop to help us at Tungchow.

Yours sincerely,

E. G. TEWKSBURY.

LEGATION OF THE UNITED STATES OF AMERICA,
PEKIN, CHINA, *September 19, 1900.*

ADNA R. CHAFFEE,

Major General Commanding United States Forces, Peking.

SIR: The inclosed letter from Mr. Tewksbury expresses his desire for a small escort to visit some villages near Tungchow for the purpose of looking after missionary interests and possibly settling some losses in that locality.

It seems to me that some good might be accomplished by such visits. What shall I reply to him?

I am, sir, your obedient servant,

E. H. CONGER,
United States Minister.

HEADQUARTERS CHINA RELIEF EXPEDITION,
PEKIN, CHINA, *September 20, 1900.*

HON. E. H. CONGER,

United States Minister, Peking, China.

SIR: I have the honor to acknowledge the receipt of your communication of the 19th instant inclosing a copy of a letter from E. G. Tewksbury, in which he requests a small guard to accompany him on certain proposed trips from Tungchow for the purpose, as he states "there has been a movement in some of the villages to settle up some of the claims for destruction of Chinese Christians, etc." He is also of the opinion that "it may be best to visit in person these places and see if the matter can be adjusted and possibly payment secured and a measure of protection secured to the villagers." A military guard, of whatever size, furnished

as proposed by Mr. Tewksbury, will necessitate the presence of an officer of the Army, who will be instructed by me to take the name of every person making a claim for damages, amount of damage claimed, and the character of the settlement made, and report the same for transmission to the Government at Washington. While I doubt the propriety of Mr. Tewksbury entering upon the settlement of any claim for damages, whether of Chinese Christians or any other persons, and which may possibly become a question for settlement by the United States, I will, if he desires, furnish an escort as indicated above, but whose period of service on the detail would be subject to termination at any time in my discretion, and the service of the guard will be wholly in the discretion of the officer in command and for no other purpose than the protection of the person of Mr. Tewksbury. If the guard be desired, please inform me by letter.

I am, sir, very respectfully,

ADNA R. CHAFFEE,

Major General, Commanding United States Forces.

—
LEGATION OF THE UNITED STATES OF AMERICA,
PEKIN, CHINA, *September 25, 1900.*

ADNA R. CHAFFEE,

Major General, U. S. V., Pekin.

SIR: Referring to your letter of the 20th instant, which has been submitted to Rev. Mr. Tewksbury, I have the honor to inform you that he is satisfied with the conditions named and desires the guard to accompany him on the expedition proposed.

He will himself confer with you as to the dates.

I have the honor to be, sir, your obedient servant,

E. H. CONGER.

—
PEKIN, CHINA, *October 14, 1900.*
ADJUTANT GENERAL, FIRST BRIGADE, CHINA RELIEF EXPEDITION,
Pekin, China.

SIR: I have the honor to make the following report: In compliance with S. O. No. 7, c. s., H. F. B., C. R. E., a detachment of 1 officer and 20 men reported to Rev. Mr. Tewksbury, at Tungchow, October 1, 1900. On October 2 the detachment accompanied Mr. Tewksbury to the following towns: Chung Chia Wan, San Chien Fang, Lu Kuan, and Nin Pao Tun, where mission property and property of native Christians had been destroyed. At the last village it was reported that a large number of Boxers had congregated and that the neighboring villages would be warned of the approach of foreign troops by the firing of a cannon cracker. This was done, but no resistance was offered. Eight guns were found in a temple, and destroyed, together with a number of spears. No other property was molested. On October 3, Tungpan, about 8 miles northwest of Tungchow, was visited and 1,000 taels indemnity collected as part compensation for the destruction of the houses of eleven Christian Chinese in Thutzufang. This money, and that paid later, was collected in this and surrounding villages for whatever share the inhabitants of the various villages may have had in the destruction at Thutzufang. October 5, went to Fuhoo, about 7 miles

northeast of Tungchow. On October 9 went to Tungpan and received 1,000 taels, completing the money indemnity for that locality. Also went to Wu Li Ch'iao and received 500 taels in silver and cash, money indemnity for destruction of property of native Christians in that locality. On October 10 a noncommissioned officer and two men were sent to Fu Hao to bring in some native Christians. This place had been occupied by the French troops until October 5, and my detachment went there that day. About an hour after the three men had left Tungchow to bring in the Christians, a native reported that about 100 Boxers had congregated there and that they would attempt to surprise these men. I took the remainder of the detachment to the village and went to the compound where it was reported that arms were kept. I found about ten men there and dinner cooking for thirty or forty. Had the interpreter tell these men not to leave the room where they were, and posted a sentinel there. One of them ran out toward the sentinel, who shot and severely wounded him. The sentinel says that this man took something from a bundle and ran toward him. The place was searched, and ten guns, a few pistols, and about thirty knives, spears, and sabers found. An attempt had been made to separate the detachment sent for the Christians from the guide with them.

On October 12 the village of Yin Pao Tun paid 2,200 taels for the property destroyed in that village, some of which was mission property. Before this detachment reported to Mr. Tewksbury, he had sent messengers to the villages where property had been destroyed, making the following demands:

1. A money indemnity for the property of the native Christians destroyed.
2. Land for a cemetery.
3. Church location and 6 acres of land to support a minister.

The whereabouts of most of the Christians to whom this property belonged is unknown. Mr. Tewksbury says the money is to be used to support refugees. It was reported to me that at Fu Hao two or three times the amount asked for was collected; the difference was probably kept by the chief men of the village who had charge of the collection. This money was collected by the men who did the damage from inhabitants who are now and always have been peaceful. This is probably the case in other villages also. This detachment went only to villages whose inhabitants were afraid to bring the money to Tungchow. Large amounts were sent into Tungchow and a considerable sum was collected in Tungchow itself. I know of this indirectly, and Mr. Tewksbury promised to give a complete account of it to the American Minister in Peking. As far as I know, no deeds or mortgages were given by any village. I requested Mr. Tewksbury to give me the name of every person making a claim for damages, amount of damage claimed, and the character of settlement made. He replied that he did not know the men whose property was destroyed, nor their whereabouts, but that he thought that he could get the names from some of the native members of his church who were assisting him in collecting this money. I wrote a letter to the adjutant general, First Brigade, China relief expedition, informing him of this, and asking for instructions, but no answer was received. Mr. Tewksbury claimed that this condition of affairs was clearly explained in his letter

asking for the detail. The detachment returned to Peking October 12, 1900, Mr. Tewksbury saying he had no further use for it.

Very respectfully,

P. W. GUINEY,
Second Lieutenant, Sixth Cavalry.

LEGATION OF THE UNITED STATES OF AMERICA,
PEKIN, CHINA, *October 23, 1900.*

ADNA R. CHAFFEE,

*Major General, United States Volunteers,
Commanding China Relief Expedition, Peking.*

SIR: Replying to your communication of the 21st instant, I have the honor to inclose to you a copy of a tabulated report made by Mr. Tewksbury of his settlement of claims of native Christians for property destroyed, etc., etc. It is the only information in this legation on the subject.

I have the honor to be, sir, your obedient servant,

E. H. CONGER.

TUNGCHOW, *October 10, 1900.*

The following table shows the scheme of settlements made or pending for damages done by the Boxers to Chinese Christians or adherents of the American Congregational Mission:

Village.	Number killed.	Houses destroyed.	Money.	Land.	Chapel.	Cemetery.
			<i>Taels.</i>	<i>Acres.</i>		
Tung Pa	4	27	2,000	7	1	1
Fu Hao	45	23	2,000	16	1	1
Tsao Fang	18	9	500	7	1	1
Lung Wang	8		300	3		1
Ta Chou T'sun	2	5	300	5	1	1
Niu Pao T'un	14	18	1,800	8	1	1
Hsiao He Chuang	2	4	300	5	1	1
San Chieh He	4	7	550	5	1	1
Wu Chia Ying	2	4	400	3	1	1
Lu Ching	1	3	300	4	1	1
San Chien Fang	2		50			
Mai Chuang	5	4	350	5	1	1
Hou T'un	2			3	1	1
Yung Lo Tien	15	12	2,500	8	1	1
Ti Tze	12	16	1,200		1	1
Shang Ying	11	10	800	5	1	1
Hsieh Chia Yuan	7	6	500		1	1
Yen Chou	1			4	1	1
Hou T'un	5	6	500	3	1	1
Lu T'sun		7	500		1	1
Nan Chuang Tou		8	700		1	1
Kiu Chia Fu	2	3	600	5	1	1
Kuo Chia Chuang	4	9			1	1
Total	166	184	16,150	96	19	20

Mortgages have been taken in many cases instead of cash. The money received goes to the church and by its committee is divided equitably according to careful estimates of individual losses. The remainder to be used at discretion of church. The 96 acres of land, if rented out, ought to secure an annual income of \$500 for help to widows and orphans, etc. In addition to above, in certain villages, monuments for memorial have been required.

E. G. TEWKSBURY.

REPORT ON THE RUSSIAN TROOPS IN NORTH CHINA.

BY MAJ. W. E. CRAIGHILL, FORTIETH INFANTRY, U. S. V.

HEADQUARTERS CHINA RELIEF EXPEDITION,
PEKIN, CHINA, *October 15, 1900.*LIEUT. COL. JOSEPH T. DICKMAN,
Twenty-sixth Infantry, U. S. V., Chief of Staff.

SIR: In compliance with instructions conveyed in your letter of October 7, 1900, assigning to me the duty of observing the Russian and French forces, I have the honor to submit the following report:

The information gained of the Russian forces was meager and unsatisfactory. No reply was made by them to your request for a statement of the location and character of their force present in North China in connection with the relief expedition; and they withdrew from Peking without my being aware of their purpose, and before I was able to get any precise data from them upon which to base a reliable report.

Infantry, artillery, cavalry, and engineers were observed at Tientsin, on the road between that point and Peking, and at the latter place.

The uniform generally worn by enlisted men was apparently the same for all arms except the distinctive marks. It consisted of a soft, flat, white cap with sloping visor, a white blouse of cotton cloth, very loose and belted at the waist with a leather strap. The trousers were plain black. The foot-gear was heavy top boots, reaching to the calf of the leg. The winter coat was of black cloth, similar otherwise to the summer blouse.

A characteristic feature of the infantry soldier was that he carried no bayonet scabbard. His bayonet was always fixed and his rifle was apparently never out of reach of his hand. The ammunition is carried in pouches on the waist belt. Their rations carried were of the simplest kind, consisting of hard brown bread, salt, pepper, and tea. They were industrious foragers and supplied meat and other items by this means from the abundant resources of the country.

Their troops had no tentage. In their camps the men lived in houses or huts made of native mats or other similar material.

* * * * *

As observed on the march and on guard duty the discipline of their infantry seemed to be up to the excellent standard which it has the reputation of maintaining. A column of two battalions of infantry and a battery of artillery, with the accompanying trains, was observed on the road. The infantry was in column of fours well closed up and the battery and trains marching in as compact a formation as the road would permit. At a halt made to allow our train to pass, the Russian infantry closed in mass by the side of the road and the artillery and trains went into park. The movement was made with quiet precision and when completed the column of troops and train was compactly placed in a small, open space by the roadside, ready for the head of it to move out again as soon as the rear of our column had passed.

No opportunity was had to observe their artillery closely. Their cavalry consisted entirely of Cossacks. They were mounted on rough, shaggy little ponies, of about the size of those of the Philippines. They carried a heavy, slightly curved saber and rifle slung over the shoulder.

The Russian transportation, other than the native Chinese carts, consisted of small, very low, four-wheeled wagons, drawn by two ponies, and seemed to have no features worthy of imitation.

A notable feature of their equipment was the traveling field kitchen, consisting of a boiler, mounted in a special wagon, so arranged that it could be in operation while in motion. The arrangement seemed to be a very convenient one, and presents some desirable features. They were observed on the march, the dinner of the men in the process of cooking, so as to be ready when the halt was made. In traveling by rail the whole apparatus was put into a flat car and the process of cooking went on while the train was in motion. When operating over practicable roads or by rail the arrangement seemed one that would give a very prompt and satisfactory service of the men's food.

Very respectfully,

W. E. CRAIGHILL,
Major, Fortieth Infantry, U. S. V.

REPORT ON JAPANESE TROOPS IN NORTH CHINA.

BY MAJ. CHARLES H. MUIR, THIRTY-EIGHTH INFANTRY, U. S. V.

HEADQUARTERS CHINA RELIEF EXPEDITION,
PEKIN, CHINA, *October 24, 1900.*ADJUTANT GENERAL CHINA RELIEF EXPEDITION,
Pekin, China.

SIR: I have the honor to submit the following as the result of observation and inquiry concerning the Japanese army:

The brigade of infantry is composed of two regiments, and commanded by a major general, whose staff consists of:

- 1 adjutant, with rank of captain.
- 1 adjutant, with rank of lieutenant.
- 1 veterinarian.
- 2 sergeants.
- 13 privates.

The regiment of infantry, commanded by a colonel, who has a staff of:

- 1 adjutant, captain.
- 1 flag officer, sublieutenant.
- 2 sergeants.
- 1 stable sergeant.
- 6 privates.

The regiment is composed of three battalions, each battalion commanded by a major, who has a staff of:

- 1 adjutant, lieutenant.
- 2 surgeons.
- 1 quartermaster.
- 4 sergeants.
- 1 surgeon sergeant.
- 1 quartermaster sergeant.
- 71 privates.

The battalion is composed of four companies. Each company contains:

- 1 captain.
- 3 lieutenants.
- 1 sergeant major.
- 1 first sergeant.
- 15 sergeants.
- 201 privates.
- 2 trumpeters.

It is thus seen that each company has 4 officers and 220 men. Each battalion has 21 officers and 880 men. Each regiment of infantry has 66 officers and 2,650 men.

A regiment of artillery is commanded by a colonel, whose staff consists of:

- 1 adjutant, captain.
- 2 surgeons.
- 1 quartermaster.
- 2 veterinarians.
- 3 sergeants.
- 1 surgeon sergeant.
- 3 stable sergeants.
- 2 quartermaster sergeants.
- 16 privates.

The regiment is composed of two battalions, each battalion commanded by a major, whose staff consists of:

- 1 adjutant, lieutenant.
- 1 sergeant.
- 6 privates.

Each battalion is composed of three companies, each company composed of:

- 1 captain.
- 3 lieutenants.
- 1 sergeant major.
- 1 first sergeant.
- 13 sergeants.
- 169 privates.
- 6 guns, 6 limbers, and 2 reserve wagons.

Each limber carries 60 shrapnel and 40 high-explosive (said to be thorite) shells, and the total ammunition of the artillery company is 504 shrapnel and 336 high-explosive shells.

The fifth regiment of Japanese artillery, in addition to the above-mentioned six companies (or batteries), had attached two batteries (six guns each) of mountain artillery. The guns were of bronze, 7.5-centimeter caliber, with shrapnel with combination fuze, and shell with percussion fuze. These guns are very light and can be carried on pack mules, one mule carrying the gun, one the wheels, and one the remaining part of the carriage, while the fourth mule carries two chests of ammunition. It is said to be the intention of the Japanese Government to replace these bronze guns with rapid-fire guns in the near future.

A regiment of cavalry is commanded by a colonel, whose staff consists of:

- 1 adjutant, captain.
- 1 flag officer, sublieutenant.
- 2 surgeons.
- 2 veterinarians.
- 1 quartermaster.
- 2 sergeants.
- 1 surgeon sergeant.
- 1 quartermaster sergeant.
- 18 privates.

Each regiment contains three squadrons, each squadron having:

- 1 captain.
- 3 lieutenants.
- 1 first sergeant.
- 1 surgeon sergeant.
- 1 stable sergeant.
- 13 sergeants.
- 132 privates.
- 127 horses.

Thus making the strength of the squadron 4 officers and 149 men, and the strength of the regiment 20 officers and 569 (sic) men.

A battalion of engineers is commanded by a lieutenant colonel, whose staff consists of:

- 1 adjutant, lieutenant.
- 2 surgeons.
- 1 quartermaster.
- 2 sergeants.
- 1 surgeon sergeant.
- 1 quartermaster sergeant.
- 11 privates.

Each battalion contains three companies, each company having:

- 1 captain.
- 3 lieutenants.
- 1 sergeant major.
- 1 first sergeant.
- 16 sergeants.
- 234 privates.

Thus the strength of the company is 4 officers and 252 men, while the battalion has a strength of 17 officers and 771 men.

The division of two brigades of infantry has one regiment of cavalry, one of artillery, a battalion of engineers, and a

battalion of commissariat. This commissariat battalion seems to be divided up and attached to other organizations, furnishing 5 sergeants, 60 men, and 60 pack animals to each battalion of the line. The commissariat men work immediately in rear of the troops, receiving the supplies from what may be termed the last depot or magazine on the line of communications, and distributing them to the troops.

On the line of communications, and forwarding the supplies from one magazine to the next, are the men of the transport service, who cannot be termed combatants. They are trained in time of peace for three months only, and then are allowed to go to their homes. They constitute, however, a kind of transport reserve and are liable to be called upon at any time in case of war. They are as a rule smaller than the soldiers proper, and of a physique inferior to them.

UNIFORM.—The summer uniform of the Japanese soldier, of the same cut as that for winter service, is of white cotton material. It is cool and easily laundered, but has the serious defect of being extremely conspicuous. At the present time the soldiers have been put in winter uniform. The old summer suits are to some extent utilized by the soldiers on fatigue.

The winter uniform, with the exception of the cavalry trousers, which are red, is of a dark-blue woolen material, warm and very neat in appearance.

The cap is slightly bell-shaped, with flat crown and small, drooping visor. It is ornamented by a narrow yellow band at the junction of the crown and sides, and another band or braid at the bottom of the sides, about $1\frac{1}{2}$ inches wide, yellow in all cases but the commissariat, in which case it is a blue or medium intensity. All caps have a star in the center of the front just above the visor.

The blouse is fairly close-fitting, extends about 3 inches below the belt, and is fastened with five buttons. It has a standing collar faced with the color of the arm, red for infantry, green for cavalry, yellow for artillery, blue for commissariat, and dark-red for engineers. A strap about 2 inches wide extends from the neck to the point of the shoulder, and has on it the number of the regiment. In the cavalry this strap is replaced by a braided shoulder knot, and the blouse has the back seams ornamented with yellow stripes and the front with five horizontal stripes of yellow, the ends terminating in falling loops. This ornamentation, together with the red

trousers, makes a very picturesque and striking uniform, with the attendant disadvantage of being very conspicuous. In the cavalry the trousers below the knee are cut to fit closely and facilitate the wearing of the boot. In the infantry they fit loosely, but are usually confined by a khaki-colored legging, which reaches near to the knee and is fastened by buttons. The security of the fastening is increased at the top by a leather strap with buckle.

The cavalry is furnished with boots and the infantry with a rather coarsely made and low-cut leather shoe. The foot-gear seems much inferior to our own. The greatcoat is of dark blue, fits loosely, extends nearly to the ankles, is unlined, and furnished with a hood. When not worn it is carried compactly rolled and slung over one shoulder, the ends fastened together on the opposite side of the body. During warm weather it seems to be carried and used in lieu of a blanket. The fitting of the uniform is simplified by the great uniformity in size and build of the Japanese soldier. It should require but few sizes to furnish a good fit for all the men.

PACK.—The Japanese have a pack of leather tanned with the hair on. This pack is not in favor and is usually replaced by an elongated cloth bag about 9 inches in diameter. In this bag is carried a reserve supply of 60 rounds of ammunition, some spare parts for the rifle, including a firing pin and its spring; a first-aid package, a small package of thread, needles, and buttons, and an emergency ration for one day. The pail in which is carried the day's ordinary ration is also carried in this bag, except when the pack is worn. In the latter case the pail is carried on top of the pack. The ends of the bag are tied together and the bag is then slung over the shoulder opposite to the blanket roll or greatcoat. The soldier also has a small bag similar to our haversack and carried in the same manner, but much smaller, in which he carries certain miscellaneous articles of his own choice.

RIFLE.—The infantry is at present supplied with the Murata magazine rifle, the magazine being a cylinder under the barrel capable of carrying eight shots, which are forced downward to the carrier by a spiral spring. When the magazine is full there can also be one cartridge in the chamber and another in the carrier. The rifle can be used as a single-loader or as a magazine gun. The magazine is habitually held in reserve and used only at the final stage of the fire

action. It is charged by inserting the cartridges singly. The rifle, sighted to include 2,000 meters, has an ordinary open leaf slide sight which is not corrected for drift. The Japanese do not seem contented with this rifle as they are preparing to replace it with the .32 new Shiki rifle. The bayonet is not often carried fixed but is usually in the scabbard. It is a short bayonet of the knife type. The ammunition is carried in leather pouches, each with two loops on the back, through which passes the leather belt. Each pouch is divided into two compartments and each compartment receives the pasteboard box carrying 15 cartridges, which, after being inserted in the pouch, has the top removed. Three of these pouches are carried on the belt, thus making, with the 60 rounds carried in the bag, a total of 150 rounds. I am inclined to consider this method of carrying ammunition superior to our own. The leather belt and pouches are no heavier than the web belt, probably a trifle lighter, and the durability is greater. The cartridges are protected from the dirt, retain their lubricant, and are in less danger of being lost. Inserting the original package into the pouch and then removing the top by the aid of the string facilitates the operation of placing the cartridges in the belt and allows a gain of time that might be of material importance when the supply of ammunition is being replenished under fire.

INTRENCHING TOOL.—In the infantry two-thirds of the men carry the small shovel, the blade being about 7 inches broad and the same in depth, and the handle about 1 foot in length. The blade is inserted in a leather guard which is strapped to the belt. The other third of the soldiers carry picks.

CAVALRY ARMS AND EQUIPMENTS.—The cavalry is armed with a carbine and saber. The noncommissioned officers also carry the pistol. Only the cavalry of the imperial guard carry the lance.

The carbine is habitually carried across the back, being slung over one of the shoulders. They have no carbine boot.

The saddle is padded and a blanket is also used. Judging by what I saw of the backs of the horses, the saddle is much inferior to our own.

In the rear pouches is carried a set of shoes for the horse; also a leather shield, that can be fastened to the hoof by thongs for use in an emergency.

In the front pouches there is always kept the one-day emergency ration of rice for both trooper and horse.

The horses are extremely small as compared to our own, being no more than ponies, so too, the weight they carry, live and dead, is much less than with our cavalry.

PAY.—The soldiers are divided into three classes, first, second, and third; the class being indicated by three, two, and one stripes of yellow on the lower part of the sleeve. In time of war they receive every ten days:

Third-class private.....	45 sen.
Second-class private.....	60 sen.
First-class private.....	80 sen.
Corporal.....	1 yen 80 sen.
Sergeant.....	2 yen 80 sen.

In time of peace officers receive monthly:

Sublieutenant.....	35 yen.
Lieutenant.....	45 yen.
Captain.....	65 yen.
Major.....	110 yen.
Lieutenant colonel.....	160 yen.
Colonel.....	210 yen.
Major general, Commander of brigade.....	310 yen.
Lieutenant general.....	420 yen.
General.....	525 yen.

The officers' salaries are increased by two-fifths in time of war. The yen is equal to about 50 cents gold and the sen to one-half cent gold.

THE RATION.—The ration consists of about 36 ounces of rice, 4 ounces of meat, and 4 ounces of vegetables. One day's ordinary ration is carried in the soldier's aluminum bucket which serves as his cooking utensil, and the hollow lid of which carries the meat portion. One day's emergency rations, consisting of three sacks of very fine quality rice and a tin of meat, containing about 4 ounces, is always carried, and can be used only by order of the commanding officer. It is the intention always to keep the regimental transportation sufficiently far to the front to make it unnecessary for the soldiers to carry more than one day's ordinary ration.

TRANSPORTATION.—The Japanese transportation consists of carts and pack animals. The cart is very light and is drawn by one pony attended by one man of the transport service.

As compared to our army or escort wagon, there is a great loss of man and draft animal labor; for the combatant force

of 18,000 the Japanese had 4,000 noncombatants and 6,000 horses.

The cart does have the advantage of not requiring such heavy or substantial bridges, and can go through narrower trails.

The pack saddle consists of two padded sides joined by iron arches. The packages are tied to or hung upon the saddle. It is well adapted to supplying ammunition to the firing line. One mule takes two boxes and can be led by the routes giving the most protection.

DISCIPLINE.—The discipline of the Japanese army is most excellent. Its military code has been borrowed from those of Europe, and retains their essential features. There are tribunals for the trial of serious offences and the punishment is usually imprisonment. The division commander has authority to approve the death sentence and to have the same executed.

Company, battalion, and regimental commanders can order corrective confinement. The length of time that can be ordered increases with the rank of the commander, the greatest being thirty days.

Only a few years ago, in what Japanese refer to as the "feudal times," corrective chastisement (such as cuffing the offender over the head or kicking him on the shins) was used for inattention at drill, etc. Now such proceeding is forbidden by their military code.

DRILL.—The drill of the Japanese infantry is characterized by simplicity, directness, and precision. In the manual of arms there are but three positions of the piece—order, right shoulder, and present.

The company is divided into three platoons, and each platoon into four groups; the habitual formation seems to be in line or column of platoons at about 5 yards distance. The rear rank stands and marches at about 1 yard distance from the front rank. The column of route is in fours if the road allows; if the road is too narrow for column of fours, then in column of twos. Fours are formed by all facing to the right (or left) and each alternate file stepping to the right oblique, so as to come abreast of the file immediately in front.

In the battle formation, the movements are at a run, the first platoon deploys to the front by an oblique fan-shaped movement, the other platoons kneeling. The front seems to

be about what the front of a company would be in battalion. The advance is made by rushes of about 50 yards, file firing being had at each halt. The two platoons in support follow, taking advantage of folds of the ground to obtain shelter during the halts. The second platoon takes part in the rapid-fire preceding the assault, joining under cover of the fire of the first platoon. The third platoon also comes up to immediately in rear of the firing line and takes part in the assault. In the rushes and the assault the officers and noncommissioned officers are in front, dropping back through the line on halting.

The drill is conspicuous by its precision and the attention paid by each soldier. Each one is wide awake to see what he ought to do, and does it without much prompting from the file closers. It is very seldom that one of the latter is heard to speak to any of the men.

The Japanese soldier enters the service at 21, serves three years and then goes into the first reserve for five years. After that he goes into the second reserve for four years.

He receives almost no pay, but is actuated by a most intense patriotism and pride in his position as a soldier. He is very obedient, and yet has an individualism that does not always go with such strict discipline. He has a great curiosity to see what is going on, both on and off duty. As a sentinel he stands at ease, but with an air showing that he is a sentinel and that he is constantly on the alert.

The compulsory service and strict physical requirements with the system of reserves, allows Japan to put a large body of trained men in the field at short notice. And if Japan can keep the armament and equipment on a par with her soldiers she is a most valuable ally and a most formidable enemy.

Very respectfully,

CHARLES H. MUIR,
Major, Thirty-eighth Infantry.

REPORT ON THE FRENCH TROOPS IN NORTH CHINA.

BY MAJ. W. E. CRAIGHILL, FORTIETH INFANTRY, U. S. V.

HEADQUARTERS CHINA RELIEF EXPEDITION,
PEKIN, CHINA, *October 30, 1900.*LIEUT. COL. JOSEPH T. DICKMAN,
Twenty-sixth Infantry, U. S. V., Chief of Staff.

SIR: In compliance with your letter dated October 7th, 1900, assigning to me the duty of specially observing the French forces, I have the honor to submit the following report:

The total French force present in North China, province of Pechili, on October 1, consisted of about 15,000 combatants of all arms. The force was organized into a division of two brigades, of which the first, composed of marine, infantry, and artillery, was stationed at Peking and on the line of communication from Tientsin to Peking. The second brigade, composed of a regiment of zouaves and one of infantry of the line with artillery, was stationed at Tientsin. In detail, the organization was as follows:

AT TIENSIN.

Division headquarters and staff—
Two squadrons of cavalry.
Two companies of engineers.
Two wagon-train companies.

AT PEKIN.

First brigade (8,000 combatants), headquarters and staff:
Chief of artillery.
Supply department.
Medical department.
Detachment of engineers.
Detachment of mechanics.
Sixteenth marine infantry—
Headquarters and two battalions at Tientsin.
Third battalion on the line of communication from Peking to Tientsin.
Seventeenth marine infantry—
Headquarters and two battalions, at Peking.
One battalion, at Loukoukiao.

Eighteenth marine infantry—

Headquarters and first Battalion, at Peking.

Second battalion, at Tungchow.

Third battalion, at Matou.

First artillery battalion—

Two batteries, at Peking.

One battery, at Tientsin.

Second artillery battalion, at Peking and Tungchow.

Second brigade (7,000 combatants). The whole brigade was temporarily assembled at Tientsin. Its staff, artillery, and auxiliary troops were the same as those of the first brigade. It contained:

A regiment of zouaves of four battalions of 1,000 men each.

A regiment of infantry of the line of three battalions of 1,000 men each.

The normal organization of the various units in the French service is as follows:

REGIMENT OF INFANTRY.

Field and staff:

1 colonel or lieutenant colonel.

1 officer attached.

1 adjutant (mounted).

1 commissary (mounted).

1 color bearer (an officer).

1 surgeon.

(Sometimes in addition)—

1 lieutenant colonel.

1 chief musician.

Noncommissioned staff:

1 drum major.

1 pioneer corporal.

12 pioneers.

(Sometimes in addition)—

1 principal musician.

38 musicians.

Staff detachment:

1 transport officer.

1 transport sergeant.

1 chief artificer (mounted, with rank of sergeant major).

1 quartermaster sergeant.

1 chief litter bearer (sergeant).

1 chief armorer (corporal).

3 armorers.

1 sergeant.

1 corporal (clerk).

3 privates (clerks).

1 chief teamster (corporal).

1 chief farrier (corporal).

1 farrier.

- 1 corporal (butcher).
- 2 privates (butchers).
- 1 saddler.
- 4 bicyclists.
- 18 teamsters and grooms.
- 8 orderlies.
- Three battalions, each:
 - 1 major.
 - 1 officer attached.
 - 1 assistant surgeon (mounted).
 - 1 adjutant.
 - 1 assistant surgeon (not mounted).
 - 1 artificer sergeant.
 - 1 commissary sergeant.
 - 1 corporal of field music (trumpet or drum)
 - 1 litter bearer (corporal).
 - 3 teamsters.
 - 3 orderlies.
- Four companies, each—
 - 1 captain (mounted).
 - 3 officers.
 - 1 adjutant.
 - 1 sergeant major.
 - 1 quartermaster sergeant.
 - 8 sergeants.
 - 1 quartermaster corporal.
 - 16 corporals.
 - 4 drummers and trumpeters.
 - 1 hospital corps man.*
 - 4 litter bearers.
 - 2 drivers.
 - 1 shoemaker (in ranks).
 - 1 tailor (in ranks).
- Transportation for infantry.
 - Each company—
 - 1 two-horse wagon.
 - Each battalion—
 - 1 one-horse ambulance.
 - 1 two-horse wagon for rations
 - 1 sutler's wagon.
 - Each regiment—
 - 13 two-horse wagons for rations.
 - 4 two-horse wagons.
 - 1 two-horse wagon for baggage.
- Total for the regiment:
 - 32 two-horse wagons.
 - 3 one-horse wagons.
 - 3 sutler's wagons.

* In the first company of each battalion the hospital corps man has the rank of corporal.

Strength of company, 250 enlisted.
 Strength of battalion, 1,000 enlisted.
 Strength of regiment, 3,000 enlisted.

ORGANIZATION OF A REGIMENT OF CAVALRY.

Field and staff:

1 colonel or lieutenant colonel.
 1 major.
 1 captain or lieutenant.
 1 paymaster.
 1 commissary.
 2 surgeons.
 2 veterinarians.

(Sometimes in addition)—

1 lieutenant colonel.
 1 major.
 2 adjutants.
 1 transport officer.

Noncommissioned staff:

1 chief trumpeter (sergeant or corporal).
 1 chief armorer.
 1 armorer.
 1 sergeant (telegrapher).
 1 corporal (telegrapher).
 4 privates (telegraphers).
 1 corporal (clerk).
 2 privates (clerks).
 1 hospital corps man (corporal).
 1 chief saddler (corporal).
 1 saddler.
 2 bicyclists.
 10 to 13 teamsters.
 10 to 13 orderlies.

Four squadrons, each—

1 captain.
 4 officers.
 1 first sergeant.
 1 commissary sergeant.
 1 quartermaster sergeant.
 6 sergeants.
 1 quartermaster corporal.
 12 corporals.
 1 chief farrier (corporal).*
 3 farriers.
 4 trumpeters.
 1 hospital corps man.
 2 teamsters.

* Sometimes the chief farrier has the rank of sergeant instead of corporal.

In the ranks:

- 6 pioneers (mounted).
- 3 cadets (mounted).
- 1 saddler (not mounted).
- 1 tailor (not mounted).
- 1 shoemaker (not mounted).

Transportation for cavalry:

Each squadron has—

- 1 traveling forage, four-horse.

Each regiment has—

- 1 four-horse forage wagon.
(or else)

Each squadron has—

- 1 two-horse wagon.

Each regiment has—

- 1 four-horse forage wagon and 1 two-horse wagon,

Besides, in every case the regiment has—

- 2 two-horse sutler's wagons.
- 6 or 12 two-horse wagons for rations.
- 2 one-horse ambulances.

Total strength of squadron 150 sabres.

Total strength of regiment 600 sabres.

ARTILLERY ORGANIZATION.

Artillery staff of an army corps:

- 1 chief of artillery.
- 1 orderly officer.
- 1 chief of staff, lieutenant colonel or major.
- 3 officers.
- 1 ordnance man, mounted.
- 2 bicyclists.
- 1 corporal (escort).
- 5 privates (escorts).
- 1 corporal (clerk).
- 1 private (clerk).
- 2 wagons for baggage and records.

Artillery staff of a division of infantry:

- 1 colonel or lieutenant colonel commanding the divisional artillery.
- 2 officers attached.
- 2 bicyclists.
- 5 privates.
- 7 horses.
- 1 wagon.

Staff of the reserve artillery—

- Like the artillery staff of a division of infantry.

Organization of a battalion of field artillery.

- 1 major.
- 2 officers attached.
- 1 commissary.
- 1 assistant surgeon.
- 1 veterinarian.
- 1 assistant surgeon (mounted).
- 1 hospital corps man (corporal).
- 1 chief litter bearer (corporal).
- 3 batteries, each—
 - 1 captain.
 - 3 officers.
 - 1 adjutant.
 - 1 first sergeant.
 - 9 sergeants.
 - 1 artificer sergeant.
 - 1 quartermaster sergeant.
 - 1 commissary sergeant.
 - 10 corporals.
 - 1 quartermaster corporal.
 - 1 chief farrier (corporal).*
 - 2 farriers (3 in divisional artillery).
 - 6 artificers.
 - 2 blacksmiths.
 - 2 carpenters.
 - 2 saddlers.
 - 1 hospital corps man.
 - 4 litter bearers.

In the ranks—

- 1 shoemaker.
- 1 tailor.

Total enlisted strength of battery, 100 men with 150 horses.

- 6 pieces of 80-millimeter caliber.
- 1 forge.
- 1 battery wagon.
- 1 forage wagon.
- 9 caissons.†

Total, 18 six-horse carriages.

Additional wagons of each battalion—

- 1 one-horse ambulance.
- 1 two-horse sutler's wagon.
- 9 wagons for rations.
- 2 two-horse wagons for baggage.

Organization of a battalion of horse artillery:

Field and staff—

Like the field battery, but no senior assistant surgeon and no corporal of the hospital corps, and no litter bearers. The horse artillery of a division of cavalry has the same field and staff as the field artillery, except it has no litter bearers and has one bicyclist.

*Sometimes the chief farrier has the rank of sergeant instead of corporal.

† In the artillery of a cavalry division, one of the caissons is loaded with cartridges.

Three batteries, each—

Same as the field battery but has no litter bearers.

Organization of a mountain battery:

Like that of the field battery, but has besides,

1 veterinarian,

1 assistant surgeon (mounted).

1 sergeant less.

6 pieces, 80-millimeter caliber.

6 carriages.

70 ammunition boxes.

1 forge.

8 boxes for tools and supplies.

2 unfilled boxes.

80 pack mules.

6 draft horses or mules.

3 wagons for rations.

Organization of a corps artillery park:

Field and staff—

1 lieutenant colonel commanding.

2 captains (attached as staff).

1 major, commanding the troops.

1 lieutenant (attached as staff).

1 surgeon.

4 ordnance men.

1 controleur d' armes.

2 artisans.

1 artificer sergeant.

2 bicyclists.

Organization of the artillery park of an army:

1 colonel or lieutenant colonel.

1 major.

2 captains (attached as staff).

1 surgeon.

9 ordnance men, of whom one is an artificer.

2 artisans.

6 men.

10 horses.

TABLE SHOWING DISTRIBUTION OF THE AMMUNITION SUPPLY IN THE FIELD.

Infantry—Number of cartridges carried per man.

With the troops:	
By the men	120
By company wagons	65.5
By ammunition train	69.1
By baggage train	2.5
	<hr/>
	257.1
With the corps reserve train:	
By the army train	48.5
	<hr/>
Total for both	305.6
At the ordnance depots and arsenal:	
Are intended to replace expenditures from the corps reserve supply and from the ammunition train.	

Artillery—Number of rounds per piece.

	Light battery.		Horse battery, 80-mm.
	90-mm.	80-mm.	
With the troops:			
In the ammunition chests of the battery-----	142.3	156	142
In the ammunition train-----	62.1	89	-----
	204.4	245	142
With the corps reserve train:			
The army train-----	52.3	93.5	-----
Total-----	256.7	338.5	142

The expenditures from the corps reserve and the ammunition train are supplied as for the infantry.

AMMUNITION SUPPLY OF A BATTERY.

Kind of projectile.	80-mm. mounted battery.	80-mm. field, light.	Horse artillery.	90-mm.	95-mm.	120-mm.
Shell-----	70	84	84	75	72	240
Shrapnel-----	420	828	744	750	672	
Fixed ammunition-----						288
Canister-----	12	24	24	29	12	
Total-----	502	936	852	854	756	528
Number of rounds per piece-----	83.5	156	142	142	126	88

ARMS.

The infantry and engineers are armed with the Lebel 8-millimeter rifle. It has a long barrel with the magazine extending under the barrel. Eight shots can be fired without reloading. It has a cut-off to provide for its use as a single shot rifle, but has no safety lock.

The bayonet has a very long, slender rapier-shaped blade. The scabbard is of leather and hangs from the belt by a leather loop.

The ammunition is carried in pouches on a black leather belt. One hundred and twenty rounds are carried in this manner and 40 more can be carried on the person when going into action.

The marine artillery (understood to correspond very nearly to our foot or garrison artillery) is equipped as is the infantry, except that it has a short carbine with long sword bayonet. The carbine is of the same make as the rifle and fires the rifle ammunition.

Its magazine is under the bolt and takes the ammunition in clips of three cartridges each.

The cavalry was said to have a similar carbine, but without the bayonet.

EQUIPMENT.

The pack of the French soldier is very similar to our own knapsack. An overcoat, blanket, and shelter tent are carried rolled horseshoe fashion over the top, with an extra pair of shoes on each side.

A haversack is carried, capable of containing two days' rations, two more days being provided for in the company wagons. Each squad has a mess kettle for cooking the food of the squad; each man is furnished with a knife, fork, and spoon in his haversack, a cup hung on his canteen, and a small tin pail or covered dish on the top of his knapsack.

During the hot weather, the uniform worn was blue cotton cloth, blouse and trousers of the same color. The head-gear was a white helmet with a blue cover, which was worn rolled up from the back, so as to leave the white top and back exposed. The device lacks beauty, but doubtless has an advantage in giving the benefit of a white covering for the head, with the color in front uniform with the rest of the clothing.

The shoes were of heavy black leather, and worn without stockings when in the field. The uniform includes "putties" wound around the leg below the knee, in the fashion of the British infantry.

The winter clothing was of dark-blue heavy cloth, trousers of the same cloth as the blouse and having a red stripe in the marine artillery and infantry, and in the engineers. Troops of the line wear the well-known red trousers of the French service. The winter head-gear worn was the forage cap with red corded seams.

AMMUNITION SUPPLY.

The system of supplying ammunition for the infantry as indicated in the tabulated statement previously given, contemplates the soldier's carrying a large number of rounds (120) on his person, and if practicable supplying himself with 40 rounds more before going into action, from the company wagons which have about 65 rounds per man. This leaves about 25 rounds remaining as reserve in the company or battalion commander's hands to be brought forward to the line if possible, after the action is in progress, by means he may

have at his disposal. There is a further reserve in the baggage train of about 7,500 rounds for the regiment, which would serve to supplement any local deficiencies which might have occurred by any one unit of the regiment expending more than the average. In the regular ammunition train 69 rounds per man are carried and in the corps train 48 rounds more making a total of 300 rounds per man.

This corresponds very closely to our own practice, except that the French soldier can carry more ammunition in his belt than ours.

Our experience at Santiago, Tientsin, and on other occasions is sufficient to impress the lesson of the difficulty in many cases of getting ammunition forward across the fire-swept space, to a line that is hotly engaged, and of the importance of providing in advance wherever the command is known to be going into a severe engagement, an ample supply of ammunition carried on the person of each soldier. Our belt filled with 100 rounds is as much as a soldier can properly be required habitually to carry on a march or other ordinary duty in the field, and it may be supplemented in an emergency by 40 more rounds carried in the pockets of the blue shirt and 5 in his rifle, but it would seem desirable to follow the custom of the French and many of the other foreign services and provide some habitual and well-settled method of giving our men, before going into action, more ammunition than they can now readily carry.

A noticeable feature of the French army, in common apparently with nearly all except our own, is the provision for a detachment of clerks and orderlies, and the necessary special-duty men for the service at the different headquarters, and of a corps of special-service men for the transportation and other purposes of the supply department. The result of this arrangement by which soldiers are not taken away from their companies on special duty, can not fail to be conducive to the efficiency and better discipline of the various organizations of combatant troops, besides avoiding the serious drain on the strength of the fighting units so familiar in our service as the result of our system of special and extra duty details.

* * * * *

Very respectfully,

W. E. CRAIGHILL,
Major, Fortieth Infantry.

REPORT ON THE GERMAN TROOPS IN NORTH CHINA.

BY LIEUT. COL. J. T. DICKMAN, TWENTY-SIXTH INFANTRY, U. S. V.

PEKIN, CHINA, *November 10, 1900.*ADJUTANT GENERAL, CHINA RELIEF EXPEDITION,
Pekin, China.

SIR: In obedience to instructions received, I have the honor to submit the following report of the German troops at present serving in North China:

On the 26th of August, 1900, the force of German troops at Peking consisted of 1,200 men, namely, one battalion of marine infantry of 1,000 men, and 200 sailors from the *Hansa*. Captain Pohl, of the German Navy, as senior officer, commanded this force until the arrival of General von Hoepfner about September 1. On September 11 the German commander claimed to have 2,000 men and six guns in or near Peking. At the time of Field Marshal von Waldersee's arrival at Peking, October 17, the German forces in China consisted of the following troops:

First East Asiatic infantry brigade, consisting of the first and second infantry regiments, each of eight companies, with an additional or ninth company for duty on the line of communications.

Second East Asiatic infantry brigade, consisting of the third and fourth regiments, with the same organization.

Third East Asiatic infantry brigade, consisting of the fifth and sixth regiments, with the same organization.

East Asiatic cavalry regiment, consisting of four squadrons.

East Asiatic field artillery regiment, consisting of three abtheilungen of three batteries each.

East Asiatic pioneer battalion, consisting of three companies.

East Asiatic railway battalion, consisting of three companies.

One ammunition column abtheilung, reenforced by:

2 infantry ammunition columns.

2 artillery ammunition columns.

2 field howitzer ammunition columns.

3 supply columns.

1 field bakery column.

6 field hospitals.

1 horse depot.

- 1 line of communications ammunition column.
- 1 clothing depot.
- 1 hospital ship.
- Also the original force of:
- 2 battalions of marine infantry.
- 1 pioneer company.
- 1 battery, old-model guns, caliber 88 millimeters.
- One-fourth of a sanitary company.

The commander of the forces is Lieutenant General von Lessel, stationed in Tientsin, Field Marshal Count von Waldersee, with headquarters at Peking, being commander of the allied troops in China, with Major General Grossgenannt von Schwarzhoff as chief of staff.

The Germans have their troops in quarters; none under canvas. The marine infantry is in the German section in the Chinese city; the artillery is on Haitemen or Ketteler street; the cavalry detachment is near the general headquarters at the Winter Palace. When the Russians withdrew they made over their buildings, gates, etc., to the Germans.

ORGANIZATION.

ESTABLISHMENT OF A BATTALION OF MARINE INFANTRY.

Battalion staff:

Officers and civil officers—

- 1 lieutenant colonel or major, entitled to 1 servant, 2 grooms, and 3 horses.
- 1 adjutant (lieutenant), entitled to 1 servant, 1 groom, and 2 horses.
- 1 battalion surgeon, with rank of staff surgeon, entitled to 1 servant.
- 1 assistant surgeon, entitled to 1 servant.
- 1 chief paymaster, with 1 servant.

Enlisted men and minor officials—

- 1 chief musician.
- 9 musicians (noncommissioned officers).
- 19 musicians (gefreite).
- 8 musicians (privates).
- 1 chief clerk (sergeant).
- 1 clerk (noncommissioned officer).
- 1 orderly sergeant.
- 1 drummer sergeant.
- 1 armorer.
- 2 orderlies (privates).
- 5 servants (privates).
- 3 grooms (privates).

Total, 5 officers and civil officials, 55 men and minor officials, 5 personal servants, 3 personal grooms, and 5 horses.

Organization of each company:

Officers—

- 1 captain, with one servant and one horse.
- 1 first lieutenant, with 1 servant.
- 3 second lieutenants, with 3 servants.
- 1 first sergeant.
- 1 second sergeant.
- 13 noncommissioned officers.
- 20 corporals (gefreite).
- 206 privates.
- 4 field musicians.
- 1 sanitary mate.
- 5 servants (privates).

Total, 5 officers, 256 men, 5 personal servants, and 1 horse.

UNIFORM AND EQUIPMENT.—The uniform of the German marine infantry is as follows: The blouse (litewka) is of dark-blue woolen material, made full, the sleeves taken in at the wrist like those of our blue shirts. It has a turn-down collar, rather wide, with two white patches about 2 by 3 inches at the ends. Two yellow stripes about $\frac{1}{2}$ inch wide divide the white field into three equal parts longitudinally. The shoulder flaps are of the same color as the blouse. Crossed anchors and a miter at the upper end, and the number of the battalion at the outer end, are embroidered in yellow silk. Loose blue trousers same color as blouse. Short heavy-soled and hob-nailed boots. Small round cap without visor; color blue, piped with white around crown; bulging top; white band $1\frac{1}{4}$ inches wide; circular button showing concentric rings of the national colors is fastened on the band.

Photographs were taken of groups of three men in various uniforms and equipment:

1. Feldmarschmässiger Anzug, or equipment for the field.
2. Sturmanzug, or light marching order.
3. Wachtanzug, for guard duty.
4. Fatigue dress.

No. 1 was in khaki uniform, with white helmets having low tops and rather wide brims. They carried a square leather knapsack. The cape, rolled, was fastened in reversed U-shape to the top and sides of knapsack. Brown shelter tent on top of cape. They also carry a water bottle covered with brown felt. The cooking apparatus is carried in the center of the back below knapsack. A small brown haversack is carried on the right side and hangs rather low. The "iron ration" is in the knapsack.

No. 2 carried a water bottle, shelter tent (and poles) of brown canvas, cooking apparatus, and haversack, in addition to arms and ammunition. The clothing was all blue.

No. 3 was the same as No. 2, leaving off the field equipments.

No. 4, working clothes, sailor pattern short jackets, large turn-down collar, made of white drill.

The arm is the Mauser rifle, caliber 79 millimeters. The bayonet (Seitengewehr) is very long, almost a sword. The ammunition is carried in two pouches, attached to a black leather belt which at the back rests on two buttons sewed to the blouse. The pouches contain 45 rounds each; 30 rounds are carried in the knapsack.

ESTABLISHMENT OF AN INFANTRY REGIMENT OF THE EAST ASIATIC
EXPEDITIONARY CORPS.

Each regiment has two battalions of four companies each, and an additional or ninth company.

Regimental staff:

Officers—

- 1 colonel, entitled to 1 servant, 2 grooms, and 3 horses.
- 1 lieutenant colonel, entitled to 1 servant, 1 groom, and 2 horses.
- 1 adjutant (first lieutenant), entitled to 1 servant, 1 groom, and 2 horses.

Noncommissioned officers and men—

- 1 clerk (sergeant).
- 1 chief musician.
- 36 musicians (noncommissioned officers and privates).
- 1 driver (private).
- 4 grooms (privates).
- 4 servants (privates).
- Total, 3 officers and 47 men, 3 personal servants, 4 personal grooms, and 9 horses.

Battalion staff:

Officers and civilian officials—

- 1 major, entitled to 1 servant, 2 grooms, and 3 horses.
- 1 adjutant (first lieutenant), entitled to 1 servant, 1 groom, and 2 horses.
- 1 surgeon, entitled to 1 servant, 1 groom, and 1 horse.
- 1 assistant surgeon, entitled to 1 servant, 1 groom, and 1 horse.
- 1 paymaster.

Enlisted men and minor officials—

- 1 paymaster candidate.
- 1 clerk.
- 1 quartermaster sergeant, with 1 horse.

- 3 drivers (privates), with 6 horses in charge.
- 5 grooms (privates).
- 1 drummer sergeant.

Total, 5 officers and civilian officials, and 12 men and minor officials, 4 officer's servants, 5 grooms and 14 horses.

Company organization:

Officers—

- 1 captain, with 1 servant and 1 horse.
- 1 first lieutenant, with 1 servant and 1 horse.
- 3 lieutenants, with 3 servants and 3 horses.

Enlisted men—

- 1 first sergeant.
- 1 second sergeant.
- 4 sergeants.
- 10 noncommissioned officers.
- 18 gefreite (lance corporals).
- 158 privates.
- 4 field musicians.
- 1 armorer.
- 1 cyclist (private).
- 3 drivers (privates).
- 1 groom (private).
- 1 hospital steward.

Total, 5 officers, 204 men, 5 officer's servants, and 5 horses.

Uniform does not differ materially from that already described, except that the facings are red. Armament and equipment also practically the same.

ESTABLISHMENT OF THE FIELD ARTILLERY REGIMENT OF THE EAST ASIATIC EXPEDITIONARY CORPS.

The regiment is organized in three abtheilungen, namely: First and second abtheilungen each with two light batteries and one mountain battery, and third abtheilung with two light batteries.

Regimental staff:

Officers—

- 1 lieutenant colonel, with 1 servant, 2 grooms, and three horses.
- 1 major, with 1 servant, 1 groom, and 2 horses.
- 1 adjutant (first lieutenant), with 1 servant, 1 groom, and 2 horses.
- 1 chief veterinarian, with 1 servant and 1 horse.

Enlisted men—

- 1 clerk, with 1 horse.
- 1 chief trumpeter, with 1 horse.
- 1 driver, with 2 horses.
- 4 grooms, with 6 horses.

Total, 4 officers, 7 men, 4 officers' servants, 4 officers' grooms, and 18 horses.

Abtheilung staff:

Officers and civilian officials—

- 1 major, with 1 servant, 2 grooms, and 3 horses.
- 1 adjutant (first lieutenant), with 1 servant, 1 groom, and 2 horses.
- 1 surgeon, with 1 servant and 1 horse.
- 1 assistant surgeon, with 1 servant and 1 horse.
- 1 veterinarian, with 1 servant and 1 horse.
- 1 paymaster, with 1 servant and 1 horse.

Enlisted men and minor officials—

- 1 paymaster candidate, with 1 horse.
- 1 trumpeter (noncommissioned officer), with 1 horse.
- 1 clerk (sergeant), with 1 horse.
- 1 cyclist (private).
- 1 driver (private), with 2 horses.
- 3 grooms (privates), with 3 horses.

Total, 6 officers and officials, 8 men and minor officials, 6 servants, 3 grooms, and 17 horses.

Battery organization:

Officers—

- 1 captain, with 1 servant, 1 groom, and 2 horses.
- 1 first lieutenant, with 1 servant, 1 groom, and 2 horses.
- 3 lieutenants, with 3 servants, 3 grooms, and 3 horses.

Enlisted men—

- 1 first sergeant, with 1 horse.
- 1 second sergeant, with 1 horse.
- 3 sergeants, with 3 horses.
- 7 noncommissioned officers, with 7 horses.
- 12 gefreite (lance corporals), with 12 horses.
- 107 privates, with 107 horses.
- 3 trumpeters, with 3 horses.
- 1 driver (private), with 2 horses.
- 5 grooms (privates), with 5 horses.
- 1 blacksmith, with 1 horse.
- 1 hospital steward, with 1 horse.

Total, 5 officers, 142 men, 5 officers' servants, 5 officers' grooms, and 153 horses.

UNIFORM.—Blue blouse, loosely fitting; black trousers, reinforced with black leather; short boots; black, patent leather helmet, plated with much metal. Armed with the latest model Mauser carbine, caliber 79 millimeters. Black belts; ammunition carried in two pouches shaped like the new field-glass cases, pouches above the hips and containing three clips of 5 cartridges each. Trousers have a red welt. Shoulder flaps also red, with shell and flame embroidered in yellow.

All the men of the battery are armed with the Mauser carbine, which is a very strong shooting weapon. It is carried by passing a short sling over one shoulder.

The men also carry a revolver. It is secured in a holster of fair leather. The cartridges are carried in a separate pouch, slung from a strap over the left shoulder and resting at the small of the back. The caliber of the revolver seemed large, about 11 millimeters. In the equipment above described, which was represented to me as "feldmarschmäsig," there were no haversacks, knapsacks, or water bottles.

The new field pieces, caliber 77 millimeters, appear somewhat heavier and shorter than our field gun. They are bronzed and suitably engraved on the chase near the trunnions. Near the muzzle there is an enlargement of the exterior diameter of about 2 inches. The rifling is with increasing twist up to within 7 centimeters of the muzzle, after which there is uniform twist. The breech mechanism, which is of the single-motion block type, contains an arrangement which automatically ejects the powder case when the breechblock is opened after firing the piece. The motion of the breechblock cocks the piece, which is then fired by pulling the lanyard, the firing pin (Schlagbolzen) impinging on a cap in the powder case. There is also a simple safety arrangement which renders it impossible to discharge the piece. When the piece is loaded the projectile is placed in the breech, followed by the case containing the powder charge. Close the block and the piece is ready to fire. The powder cases are picked up to be reloaded and primed.

The brake is thrown into condition for action by a lever; after that it acts automatically upon recoil. A strong, flat-braided galvanized wire rope is wound around the enlarged brass hub of the gun-carriage wheels. As the wheels move to the rear this rope draws the brake-shoe up against the wheel with the firmest kind of a grip.

At the end of the trail, and resting on the trail when not in action, is a large spur, 18 inches long. When the piece is unlimbered this spur is let down from the end of the trail by simply revolving it to the rear. Its edge, 18 inches long, then rests on the ground in a direction perpendicular to the plane of fire. With the combined action of the brake and the spur the movements of the piece are small.

In the limber chest 36 rounds are carried, all shrapnel. Two case shots are carried attached to the trail.

The gun carriages are painted light-blue, the iron parts black. A soft Russia-leather cover protected the breech mechanism and another the muzzle.

The officers spoke highly of the accurate shooting qualities of the gun, and altogether seemed very proud of it.

The abtheilung commander (major) wore light-blue uniform, being a simple blouse and riding breeches; a low forage cap with bulging top, and small, black patent-leather visor; silver-cord shoulder knots.

The horse equipments of the battery were of fair leather with silver ornaments, and were kept in excellent condition. The horses were Walers of rather coarse breed.

ESTABLISHMENT OF THE CAVALRY REGIMENT OF THE EAST ASIATIC EXPEDITIONARY CORPS, WITH FOUR SQUADRONS.

Regimental staff:

Officers and civilian officials—

- 1 colonel, with 1 servant, 2 grooms, and 3 horses.
- 1 major, with 1 servant, 1 groom, and 2 horses.
- 1 adjutant (first lieutenant), with 1 servant, 1 groom, and 2 horses.
- 1 chief surgeon, with 1 servant, 1 groom, and 1 horse.
- 1 assistant surgeon, with 1 servant, 1 groom, and 1 horse.
- 1 paymaster, with 1 servant, 1 groom, and 1 horse.
- 1 chief veterinarian, with 1 servant and 1 horse.
- 1 veterinarian, with 1 servant and 1 horse.

Enlisted men and minor officials:

- 1 paymaster candidate, with 1 horse.
- 1 clerk (sergeant), with 1 horse.
- 1 chief trumpeter (second sergeant), with 1 horse.
- 6 grooms (privates), with 6 horses.
- 1 driver (private), with 2 horses.

Total: 8 officers and officials, 10 men and minor officials, 8 officers' servants, 7 officers' grooms, 23 horses.

Squadron organization:

Officers—

- 1 captain, with 1 servant, 1 groom, and 3 horses.
- 1 first lieutenant, with 1 servant, 1 groom, and 2 horses.
- 3 lieutenants, with 3 servants, 3 grooms, and 6 horses.

Enlisted men—

- 1 first sergeant, with 1 horse.
- 1 second sergeant, with 1 horse.
- 4 sergeants, with 4 horses.
- 8 noncommissioned officers, with 8 horses.
- 3 trumpeters, with 3 horses.
- 20 gefreite (lance corporals), with 20 horses.
- 112 privates, with 112 horses.
- 1 blacksmith, with 1 horse.
- 1 hospital steward, with 1 horse.
- 2 drivers, with 4 horses.
- 7 grooms (privates), with 7 horses.

Total: 5 officers, 160 men, 5 officers' servants, 5 officers' grooms, 173 horses.

UNIFORM.—The German troops did not bring their full-dress uniforms. The cavalry soldiers on guard at the field marshal's headquarters were dressed as follows:

Helmet of enameled black leather, with eagle and spike, and a quantity of other metal; chin strap covered with metal, except the part that goes under the jaws. The chin strap is not worn on the chin but passes just in front of the throat.

The blouse of wool, light-brown color, with turn-down collar; two patches of scarlet, about 2 by 3 inches, near ends of collar.

Trousers are black, reenforced with black leather.

Boots of black leather reach to the knee.

Neither gloves nor gauntlets were worn by the men.

ARMAMENT.—The German cavalry is armed with the Mauser carbine, caliber 79 millimeters, latest model. The soldier carries 45 cartridges in nine clips on his person; 50 rounds are carried on the saddle. The saber is attached to the belt when dismounted.

The lance is of steel tubing, bronzed; cross-section of the point is rectangular. A black and white pennant is attached to the lance.

EQUIPMENTS.—The waist belt is of fair leather. Another belt of fair leather passes over the left shoulder. It has four small pockets on the portion passing over the breast and five at the back, each holding one Mauser clip with five cartridges. The spurs are permanently fastened to the heels of the boots; the rowel has eight points.

The horses are mostly Walers and a rather sorry lot. It is true they are still out of condition from their long voyage, but no amount of training will remedy their defective conformation, such as ewe necks and goose rumps.

The German saddle is of fair leather, flat seat, low pommel, broad cantle, long side bars, padded. The excellent brown woolen blanket is large enough to cover the whole horse. It is folded into nine thicknesses. The girth is a leather strap fully four inches wide; it is fastened by means of buckles well up on the blanket. Two saddle skirts reach about half way down to the stirrups and protect the trousers, serving to some extent as sweat leathers. Light breast straps are used to keep the saddle from slipping to the rear. The saddle skirts have a slightly raised roll in front to increase security against the rider's slipping forward. The surcingle is not

used. The horse is bitted with curb and snaffle, the latter of course detachable. The curb bit is a mild one with a large bar with light port.

The carbine is carried in a boot, or more properly speaking, a case attached to the cantle on the right side. It hangs vertically and is secured in the case by a strap.

The pouch on the right side of the pommel contains the soldier's underwear and other small articles. The pouch on the left side of the pommel holds horse brush, currycomb, and horse cloth. To each of the pommel pouches are attached two small pockets, one holding two horseshoes and the other five clips of cartridges. The cooking utensils in a fair leather case are attached to the left cantle. The saber also is suspended from the cantle on the left side. The overcoat (gray color), rolled, and one day's grain are carried on the cantle. The extra blanket carried in cold weather is placed under the saddle, on top of the saddle blanket. The "iron ration" is carried in the right pommel pouch. The stable-clothes, made of drill, are folded and carried strapped under the pommel pouches, the blouse on one side and the trousers on the other. The halter shank is rolled and the end fastened to the halter on the left side.

All the leather horse equipments are of fair leather.

A socket for the lance is attached to the right stirrup.

The German troops are not provided with canvas but depend upon billeting. In a country as densely populated as China, this is, of course, entirely feasible. One serious disadvantage is the danger of infection to men and animals. Proper officers precede the main body of the command and mark the accommodations for men and animals on the entrances of houses and inclosures. Practice makes them skilful and they do it very rapidly.

The marching of the troops, as far as observed, has been excellent. The organizations kept well closed up with a few stragglers. It is true, however, that the weather has been especially favorable.

The German officers are well educated—many of them speaking several languages—clean and well dressed, polite, punctilious in their military courtesies, and imbued with zeal for their service.

The discipline of the men as far as observed at Peking is excellent. They present a neat appearance and are respectful

to officers of all nations. There have been complaints from Tientsin and other points as to dirty appearance and rough conduct of German officers; it is believed these cases are exceptional.

It was observed that some of their men on foot salute with the hand, whereas most of them simply turn the head and raise the chin and look at the officers. This seems to be the rule with mounted men. Such method of saluting did not impress me favorably.

Detachment commanders give the command "eyes right" or "left" and if under arms take the parade step upon meeting officers.

* * * * *

The German soldier strikes me as obedient and thoroughly under control of his officers.

* * * * *

Very respectfully,

J. T. DICKMAN,

Lieutenant Colonel, Twenty-sixth Infantry, U. S. V.

REPORT ON THE BRITISH TROOPS IN NORTH CHINA.

BY LIEUT. COL. J. T. DICKMAN, TWENTY-SIXTH INFANTRY, U. S. V.

PEKIN, CHINA, *November 1, 1900.*

ADJUTANT GENERAL CHINA RELIEF EXPEDITION.

SIR: In compliance with your letter of instructions of October 5, 1900, creating a department of military intelligence, and with the verbal assignment of the director of that department, I have the honor to make the following report on the organization and working of the British troops of the relief expedition of the allied powers in North China:

In the latter part of June, 1900, when it became apparent that an expedition would have to be sent to China, the commanding general of the British forces in India, under instructions from Her Majesty's Government, drew up a scheme for the mobilization of an expeditionary force to China, the essential features of which are reproduced below.

1. At the request of Her Majesty's Government a division of all arms, to be entitled the China expeditionary force, as

detailed below, will be mobilized at once and dispatched to China.

2. COMPOSITION OF THE FORCE.—The force will be made up as follows:

First infantry brigade:

- Seventh Bengal Infantry (Fort William).
- Twenty-sixth Bombay Infantry (Quetta).
- First Sikh Infantry (Kohat).
- Twenty-fourth Punjab Infantry (Rawal Pindi).
- No. 39 native field hospital (Jubbulpore).
- No. 43 native field hospital (Lucknow).
- No. 1 brigade supply column.

Second infantry brigade:

- Second Bengal Infantry (Dera Ismail Khan).
- Fourteenth Sikh Infantry (Nowshera).
- Fourteenth Gurkha Rifles (Bakloh).
- Third Bombay Infantry (Chaman).
- No. 63 native field hospital (Poona).
- No. 66 native field hospital (Bangalore).
- No. 2 brigade supply column.

Of these troops the first brigade reached the theater of operations, No. 43 native field hospital took station at Tientsin and Weihaiwei. The second brigade remained at Hongkong, except No. 66 native field hospital, which was reported as en route from Hongkong.

Divisional troops:

- Twelfth battery R. F. A. (Jullundur), at Peking.
- No. 7 ammunition column unit (Mooltan), at Peking.
- First Bengal Lancers (Lucknow), at Peking.
- First Madras Pioneers (Bangalore), at Peking.
- No. 4 company Bengal Sappers and Miners (Roorkee), at Peking.
- No. 3 company Madras Sappers and Miners (Bangalore), at Tientsin.
- No. 2 company Bombay Sappers and Miners (Kirkee), not arrived.
- One printing section at Tientsin.
- Eight special signaling units, British infantry (Calcutta), at Peking.
- Section B., No. 22, British field hospital (Calcutta), at Tientsin.
- No. 42 native field hospital (Umballa), at Tientsin.
- No. 2 brigade supply column at Peking.

Line of communication troops:

- Twenty-second Bombay Infantry (Whow and Indore) garrison troops.
- Third Madras Infantry (Secunderabad), at Hongkong.
- One telegraph section, Madras Sappers and Miners (Bangalore).
- One railway section (Calcutta).
- One ordnance field park.
- One engineer field park.

Section A, No. 25, British field hospital (Madras), as base hospital for British officers and soldiers.

No. 47 native field hospital (Whow).

No. 41 native field hospital (Secunderabad) for sick and wounded returning from the field.

No. 4 medical store depot (Calcutta).

One native general hospital, 400 beds (Calcutta).

One native military base depot at Weihaiwei.

One base supply depot.

Punjab coolie corps:

No. 1 Punjab Coolie Corps (Pekin).

No. 2 Punjab Coolie Corps (Tientsin).

No. 3 Punjab Coolie Corps (Tientsin).

No. 4 Punjab Coolie Corps (Tientsin).

No. 54 native field hospital (Meean Meer).

3. STRENGTH, ESTABLISHMENT, AND BAGGAGE.—(a) All units will proceed at field-service strength and scale of equipment, relief scale of baggage, and field-service scale of tentage. Officers will take all their uniforms (except tunics and mess kits) and troops will take serge or cloth clothing in addition to field-service kit. The relief scale of baggage will be as far as port of debarkation only.

(b) Native infantry and pioneer battalions will be provided with full field-service complement of 12 British officers.

4. DEPOTS.—Depots will be formed as prescribed in the field-service equipment tables. Native infantry depots will be on scale F.

5. SUPPLY BATTERY.—The Fifty-seventh battery R. F. A. will be the supplying battery of the Twelfth battery R. F. A.

6. MOVEMENTS IN RELIEF.—Prescribes changes of station so as to occupy garrisons vacated by the mobilized division.

7. COMMAND AND STAFF.—Commanding officers and staffs to be as follows:

Divisional staff:

Commanding, with the local rank of major general: Brig. Gen. Sir A. Gaselee, A. D. C., K. C. B., I. S. C.

Aid-de-camp: Capt. B. T. Pell, the Queen's Royal West Surrey regiment.

Aid-de-camp: Lieut. R. A. Steel, Seventh Bengal Cavalry.

Deputy adjutant general: Brig. Gen. E. G. Barrow, C. B., I. S. C.

Assistant adjutant and quartermaster general: Lieut. Col. G. H. W. O'Sullivan, R. E.

Deputy assistant adjutant and quartermaster general: Capt. E. Phillips, Fifth Gurkha Rifles.

Marine transport officer: Commander F. H. Elderton, Royal Indian Marine.

Deputy assistant quartermaster general for intelligence: Capt. E. W. M. Norie, Middlesex Regiment.

Field intelligence officer: Capt. MacG. R. E. Ray, Seventh D. C. O. (Rajputs).

Principal medical officer: J. T. B. Barkey, V. H. S., I. M. S.

Special service officers:

Capt. G. H. G. Mockler, Third Madras Infantry.

Capt. the Honorable H. D. Napier, First Central India Horse.

Capt. G. De S. Barrow, First Bengal Cavalry.

Commanding Royal Engineers: Maj. G. K. Scott-Moncrief, R. E.

Adjutant Royal Engineers: P. E. Picton, R. E.

Assistant engineer (railways): Lieut. H. E. C. Cowie, R. E.

Assistant field engineer (telegraphs): Lieut. S. G. Loch, R. E.

Superintendent army signaling: Capt. R. C. Rigby, first battalion, Wiltshire Regiment.

Provost marshal: Capt. R. B. Low, D. S. O., Ninth Bengal Lancers.

Ordnance officer: Capt. M. S. C. Campbell, R. A.

Field paymaster: Capt. C. N. Baker, military accounts department.

Staff surgeon: To be detailed from the force.

Chief commissariat and transport officer: Maj. J. W. Bond, assistant commissary general.

Assistant to chief commissariat and transport officer: Lieut. H. N. Young, deputy assistant commissary general.

Divisional transport officer: Maj. F. C. W. Rideout, assistant commissary general.

Assistant to divisional transport officer: Maj. H. D. McIntyre, Eighth Madras Infantry.

Commissariat and transport officer for divisional troops: Lieut. L. M. P. Deas, deputy assistant commissary general.

Assistant to commissariat and transport officer for divisional troops: Lieut. R. M. Hall, Thirteenth Bengal Lancers.

Veterinary officer: Veterinary Capt. E. H. Hazelton, A. V. D.

First infantry brigade staff:

General officer commanding: Brig. Gen. Sir Norman R. Stewart, Bart., I. S. C.

Orderly officer: Maj. A. W. Leonard, Fifth Infantry, Hyderabad contingent.

Deputy assistant adjutant general: Capt. T. Jermyn, Second Sikh Infantry.

Deputy assistant quartermaster general: Capt. H. T. Brooking, Twenty-first Madras Pioneers.

Brigade signaling officer: Lieut. C. R. Scott-Elliot, Fourth Madras Pioneers.

Brigade commissariat and transport officer: Capt. R. E. Vaughn, assistant commissary general.

Assistant to brigade commissariat and transport officer: Capt. D. R. Adye, Sixth Infantry Hyderabad Contingent.

Second brigade staff:

General officer commanding: Brig. Gen. O. M. Creagh, V. C., I. S. C.

Orderly officer: Capt. W. A. Watson, Second Central India Horse.

Deputy assistant adjutant general: Capt. J. M. Stewart, Twenty-fifth Gurkhas.

Deputy assistant quartermaster general: Capt. J. A. Houisson-Crawford, Seventh Bombay Infantry.

Brigade signaling officer: Capt. J. Gaisford, Twenty-fifth Punjab Infantry.

Brigade commissariat and transport officer: Capt. F. C. Rampini, deputy assistant commissary general.

Assistant to brigade commissariat and transport officer: Lieut. M. R. W. Nightingale, Twenty-fifth Gurkhas.

Line of communications and base staff:

Base commandant and in charge of line of communications: Col. L. R. H. D. Campbell, I. S. C.

Deputy assistant adjutant and quartermaster general base and communications: Lieut. Col. J. C. Swann, First Bombay Grenadiers.

Principal medical officer of line of communications: Lieut. Col. H. F. P. F. Esmonde-White, I. M. S., Madras.

Commandant native military base depot: Maj. W. S. De LaMain, Seventy-third Bombay Rifles.

Adjutant native military base depot: Lieut. E. C. Creagh, Fourth Punjab Infantry.

Base commissariat and transport officer: Capt. A. W. Cripps, assistant commissary general.

Assistants to base commissariat and transport officer: Capt. F. E. Geoghegan, deputy assistant commissary general, and Lieut. W. St. G. Chamier, deputy assistant commissary general.

Transport officers:

Senior transport officer: Maj. S. G. Radcliff, Thirty-third Madras Infantry.

Transport officers for Chinese transports—

Capt. J. A. Douglas, Second Bengal Lancers.

Capt. E. A. Stotherd, Fourth Lancers, Hyderabad Contingent.

Lieut. W. L. O. Twiss, Twenty-fifth Madras Infantry.

Lieut. C. L. Peart, Fourth Sikh Infantry.

Indian Coolie Corps:

First corps—

Commandant: Maj. St. G. L. Steele, Second Bengal Lancers.

Second in command: Lieut. C. H. Alexander, Sixth Bombay Cavalry.

Second corps—

Commandant: Capt. J. L. Ross, Twenty-first Gurkhas.

Second in command: Lieut. H. S. Garrett, Third Bombay Infantry.

Third corps—

Commandant: Capt. E. B. C. Boddam, Twenty-fifth Gurkhas.

Second in command: Lieut. F. H. Goldthorp, Third Punjab Cavalry.

Fourth corps—

Commandant: Capt. P. W. Drake-Brockman, Fifth Bengal Infantry.

Second in command: Lieut. G. A. H. Beatty, Ninth Bengal Infantry.

8. CONCENTRATION AT PORT OF EMBARKATION, AND EMBARKATION.—(a) and (b) Ports of embarkation are designated.

(c) The director of the Royal Indian Marine will arrange as expeditiously as possible for the necessary sea transportation for conveyance of the force to China, all vessels to call at Hongkong for orders. He will inform the general officers commanding at ports of embarkation concerned of the vessels he proposes to charter. These will then be surveyed in accordance with army regulations, and reports made to army headquarters regarding the transports engaged, the date of sailing, and the allotment proposed. As dates of sailing become known, the general officers commanding at the ports of embarkation will arrange by telegram, in direct communication with the general officer commanding the districts concerned, for the movement of units to the port, copies of all such communications being sent to army headquarters and to the headquarters of the command concerned.

(d) Prescribes slings for sick animals, 25 per cent.

(e) and (f) Prescribe temporary increase of certain staff department officials.

(g) Prescribes construction of additional railroad platforms to facilitate detrainment of men, animals, and stores, and hiring of extra storehouses at ports of embarkation; also for additional side tracks, if necessary.

(h) The general officers commanding Presidency and Bombay districts will be responsible for receiving transports and stores for the force, for their accommodation, and for their loading on the transports.

(i) As far as possible stores of one description will be loaded together, those which are likely to be first required being loaded in the vessel last.

(j) Prescribes troops with which the field hospital will embark.

(k) The arms, ammunition, and equipment of each unit will accompany the unit in the same vessel or vessels so as to be available at once on disembarkation.

(l) The lieutenant generals commanding the forces will make all necessary arrangements for rest camps en route, and for the supply of ice on the line of rail if considered necessary; and will sanction such reduction in the regulation number of troops allotted to each compartment as they may for climatic reasons consider desirable.

9. Provides for sending some officers and men ahead to Hongkong.

10. Assigns the divisional staff office to the fourth division as the divisional office of the force and directs its dispatch to Calcutta; provides for assignment of clerks and typewriters to divisional office; assigns brigade staff officers to the brigades of the force; assigns a base and line of communication office; assigns offices for the commanding royal engineer, the superintendent of signaling, and the books for the provost marshal of the force; prescribes books, regulations, and files of orders to be taken; and forms a medical staff office.

11. (a) Prescribes that all units shall be armed with the .303 rifle or carbine and shall carry proper proportion of spare parts.

(b) Prescribes five additional vents per gun.

(c) Prescribes ammunition to be carried as follows:

NATIVE INFANTRY:

On soldier	100
First regimental reserve	80
Second regimental reserve	120
Ordnance reserve	450
Total	<u>750</u>

NATIVE PIONEER BATTALION:

On soldier	60
First regimental reserve	120
Second regimental reserve	120
Ordnance reserve	450
Total	<u>750</u>

COMPANY OF SAPPERS AND MINERS:

On soldier	50
First regimental reserve	100
Ordnance reserve	250
Total	<u>400</u>

NATIVE CAVALRY:

On soldier	50
First regimental reserve	100
Ordnance reserve	250
Total	<u>400</u>

ARTILLERY, PER CARBINE:

On soldier	20
------------------	----

In addition to foregoing scale, small-arm ammunition at the rate of 50 rounds per file or carbine will be furnished to all units for practice on the voyage.

Battery ammunition, 750 rounds per gun (including case shot), or 4,500 rounds per rifle, on carriages, in ammunition column, and ordnance reserve.

(*d*) Designates arsenal from which ordnance field park stores and personnel are to be drawn.

(*e*) Prescribes extra signal equipments to be taken.

12. (*a*) Assigns one Maxim gun and 30,000 rounds to each battalion, 6,200 rounds being with the command and the balance in ordnance park.

(*b*) For practice en route 110 rounds per gun (Maxim).

13. Reserve of horse shoes and nails.

14. Designates arsenal which furnishes the engineer field park.

15. Prescribes detail and concentration of eight special signaling units (British infantry) without delay.

16. A native general hospital of 400 beds complete with tents to be shipped from Calcutta. A hospital ship to be equipped. Further details of medical arrangements.

17. Ambulance transport.

18. Necessary veterinary arrangements to be made by the principal veterinary officer in India.

19. Commissariat equipment.

20. CLOTHING.—(*a*) All troops and followers will be supplied with clothing on the "Sumner" scale as laid down in the field-service department code "commissariat-transport." The issue will be made to units before they leave stations, if possible; otherwise the officer responsible for the equipment of the units concerned will inform the general officer commanding at the post of embarkation by telegram of the articles required to complete, and these will be issued before embarkation.

(*b*) Winter scale of clothing, including warm coats, British, to be shipped in bulk; to be issued upon orders of commanding general.

(*c*) Deficiency in warm clothing to be made up and shipped as soon as possible.

(*d*), (*e*), and (*f*) Refer to details about boots and reserve supplies of clothing.

(*g*) Sea kit to be supplied to troops as they embark.

(h) Foreign-service kit to be issued to all native troops and followers.

21. **EQUIPMENT.**—All troops to be equipped on the field-service scale. Certain troops to take their mobilization equipment; others to draw theirs from designated places. Ammunition column equipment also prescribed.

22. **STRETCHERS.**—Field and blanket stretchers to be taken by units as follows:

Battery of artillery, 2 and 4.

Regiment of cavalry, 8 and 16.

Company of sappers and miners, 2 and 4.

Battalion of infantry or pioneers, 8 and 16.

23. **FUEL.**—Ten days' supply of fire wood to be taken.

24. **SUPPLIES.**—(a) Forty days' sea rations and a reserve of thirty days' land rations, including compressed fodder and grain for horses and transport animals, will be placed on each transport.

(b) In addition, two months' supplies including grain for horses and transport animals, but exclusive of compressed fodder, will be taken from Calcutta for the whole force, making a total of three months' supply in all. A further two months' supply will be prepared and dispatched hereafter.

(c) Supplies will be packed in water-proof bags where necessary.

25. **TRANSPORT.**—(a) Only the obligatory pack mules will accompany the force and, except in case of units embarking at Bombay, the mules will be embarked on the same vessel with the unit to which they belong.

(b) The obligatory mules, allotted to units, include mules for the carriage of reserve or emergency rations in the field, which are as follows:

Native infantry, 8 mules per battalion.

Native pioneers, 8 mules per battalion.

Company, sappers and miners, 2 mules per company.

British field hospital, 1 mule per hospital.

Native field hospital, 2 mules per hospital.

A reserve of 500 sets of pack saddlery to be shipped from Calcutta.

26. Organizes a native military base depot.

27. Directs establishment of postal arrangements.

28. **TELEGRAPHS.**—(a) A telegraph section from the Madras sappers and miners, consisting of 2 British noncommissioned

officers, 2 Havildars, 2 Naiks, and 12 sappers will accompany the force.

(b) In addition 12 military signalers will be attached to the section for duty.

(c) Equipment for this section to be issued by the telegraph department.

29. RAILWAYS.—A railway section, consisting of two warrant or noncommissioned officers and 48 public followers, will accompany the force.

30. SURVEYORS.—Four native soldier surveyors detailed for duty with intelligence staff.

31. MAPS.—Maps and handbooks will be issued from army headquarters to all corps and units for the use of all officers with the force.

32. Regulations as to submission of reports.

33. Prescribes voyage report to be rendered.

34. Prescribes special returns and list of arms, clothing, etc., to be prepared while on the voyage.

35. OFFICERS' MESSES.—Scale discretionary as far as base of operations. On leaving base, as given in Field Service Manual.

36. PRESS CORRESPONDENTS.—Officers belonging to the force will on no account be allowed to act as press correspondents. Applications for permission to accompany the forces as press correspondents will be made to the adjutant general in India. Not more than one correspondent will be allowed for each newspaper. Officers appointed press correspondents will not be employed in any military capacity whatever.

37. CONCESSIONS AND PRIVILEGES.—(a) Staff officers, transport officers, special service officers, and others, will draw the pay of their appointments from the date of their arrival at ports of embarkation.

(b) All ranks may be granted an advance of three months' pay.

(c) The troops and followers of the force will be considered on field service for all concessions and privileges from the date of embarkation until they return to India.

(d) Free passage to their homes may be granted to the families of all native followers.

41. PUNJAB COOLIE CORPS.—Four Punjab coolie corps will be raised at once under the orders of the lieutenant general commanding the forces, Punjab. The corps will be composed of Punjabi Mohammedan coolies recruited from

men accustomed to carry loads and marching. Each corps will be organized as follows:

- 1 commandant (regimental officer).
- 1 second in command (regimental officer).
- 2 British noncommissioned officers.
- 20 sirdars, at one per 50 coolies.
- 40 mates, at one per 25 coolies.
- 2 transport agents, second class.
- 8 sweepers.
- 1 section, No. 54, native field hospital.
- 1,000 coolies.

(b) The establishment will receive clothing as laid down in regulations.

(c) **EQUIPMENT.**—Four yards of coarse country cloth should be provided to each coolie to secure the load on the back. Daos or kukries for arming the men should be arranged for by the ordnance department at the rate of one per sirdar, mate, and follower, and taken in bulk.

(d) Rations will be issued from date of arrival at port of embarkation. While awaiting embarkation rations will be issued as follows:

Atta or rice	pounds..	1½
Dhal	ounces..	3
Ghi	do..	1
Salt	do..	¾
Fuel	pounds..	1½

From date of embarkation the corps will receive rations at the scale authorized for fighting men.

(e) Camp equipage will be supplied at the rate of one G. S. 40-pound tent British N. C. O., and one N. C. 45-pound tent to every seven men.

(f) The British officers will draw the pay of their appointments from date of joining at the station to which ordered for the purpose of raising the corps.

(g) Rates of pay:

	Per month.
Commandants	Rs. 300
Second in command	do 200
Noncommissioned officers	do 20
Sirdar	do 18
Mates	do 15
Coolies	do 12
Sweepers	do 9
Transport agents	do 40

(h) Each corps will be furnished with one section of No. 54 native field hospital complete in every respect.

* * * * *

The reader of the foregoing scheme for mobilization and dispatch of an expeditionary force can not fail of being impressed with its thoroughness, and its painstaking attention to every detail. The instructions contain many excellent features, evidently based on large experience, and readily appreciated.

It is observed that on the staff of the commanding general there are 28 officers, presumably detailed on account of special fitness, but not taken from military units forming the combatant force of the expedition. This would be a large staff for a division of troops forming part of a corps, but for an independent force on a transmarine expedition a great many special officers are needed; very few, if any, could be removed without impairing the efficiency of the service.

The brigade staff consists of six officers, about the same as our own.

The line of communications and base staff consists of six officers besides the commandant. The organization seems to be well adapted to secure efficiency. The transport officers also have a separate organization. According to report of Maj. S. M. Mills, Sixth United States Artillery, the various staff officers were well selected and placed the British force in the field rapidly, well equipped and in good condition.

The infantry brigade consists of four regiments; however, as the strength of the latter is only 700 combatants, the brigade is not by any means cumbersome. The special troops for the division are particularly well represented; the proportion of artillery for the force that actually took part in the operations was ample.

A specially commendable feature was found in the completeness of the units, which were all filled up to the full number of fighting men; when necessary, men were taken from other regiments and attached so as to secure the full complement of 721 enlisted men in each battalion.

The British authorities probably had a clear idea as to what they purposed to do, for we find them prescribing summer and winter clothing to be taken, and making definite arrangements for depots and subsequent supply.

The plan of sending suitable officers ahead to make arrangements for arrival of troops, such as hiring storehouses, constructing ramps and platforms, and building additional side tracks, is admirable; so is the fixing of responsibility for

failure. The regard for the comfort of the command by providing rest-camps, insisting upon ice in the cars when necessary, and reducing the number of passengers in compartments, attracts attention.

If the requirements of paragraph 10 of the order, transferring divisional, brigade, and other staff office establishments to the expedition for duty, were only partially carried out, it must have been of great advantage to those who were organizing such offices for field service. Instead of being obliged to "rustle" among the enlisted men of the command for clerks and typewriters inexperienced in military business, efficient men accustomed to the work, acquainted with military forms, and provided with typewriter, stationery, and office paraphernalia, relieved the commanding general's adjutant of much worry about clerical work, which was systematically carried on from the outset, instead of being perhaps for weeks in an unsatisfactory condition.

DETAILS OF ORGANIZATION.

ESTABLISHMENT OF NATIVE INFANTRY BATTALION (PUNJAB OR BENGAL).

	Peace.	War.
British officers :		
Commandant	1	1
Wing commanders	2	2
Wing officers	5	9
Medical officer	1	1
Total	9	13
Native officers :		
Subadars	8	8
Jemadars	8	8
Total	16	16
Hospital assistants	2	1
Noncommissioned officers and men :		
Havildars	40	
Naiks	40	
Sepoys	796	720
Drummers and buglers	16	
Sepoys ward orderlies	4	1
Total	896	721
Public followers :		
Tindal	1	3
Lascars	4	3
Bhistis	8	8
Sweepers	8	8
Bazaar establishment	2	2
Cooks		16
Pakhalis		8
Mochis		2
Bearers	4	2
Total	27	59

ESTABLISHMENT OF NATIVE INFANTRY BATTALION (PUNJAB OR BENGAL)—
continued.

	Peace.	War.
Private followers :		
Officers' personal servants		13
Officers' syces		13
Officers' grass cutters		7
Hospital assistants' servant		1
Hospital assistants' pony attendant		1
Total		35
Cattle :		
Chargers	9	13
Ponies, officers'		7
Pony, hospital assistants'		1
Total	9	21

The battalions of Madras, Bombay, Hyderabad, have this same war strength.

Allowances.	Baggage.	Tentage.
	<i>Pounds.</i>	<i>Pounds.</i>
Officers	70	80
Native officers	40	40
Men	25	

The following are approximate definitions of names of common occurrence in the native regiments:

Bhisti: A camp follower provided with a bag or skin in which he carries water for the troops on the march.

Bazaar establishment: A clothing depot.

Duffadar: A native sergeant of cavalry,

Havildar: A native sergeant of infantry.

Jemadar: A native lieutenant.

Khalassis: Men who have charge of tents.

Lascar: A man taking care of tents.

Maund: Weight of 80 pounds.

Mochi: A saddler.

Naik: A native corporal.

Pakhali: A native water carrier with pony and equipment.

Ressaïdar: A native second captain of cavalry.

Ressaïdar-wordi-major: A sort of sergeant major of cavalry.

Ressaldar: A native captain of cavalry.

Salootri: A head farrier.

Sepoy: A native infantry soldier.

Silladar: Applied to cavalry whose horses are purchased out of the chundee or horse fund, paid in by those desiring to enter the cavalry service.

Sowar: A native cavalry soldier.

Subadar: A native infantry captain.

Syces: Grooms.

Tindal: An ordnance storekeeper.

Twenty men are allowed one tent weighing 160 pounds.

The difference between peace and war strength is left at home and organized into companies J, K, L, M, each under a native officer. A British officer is detailed as commandant, another as adjutant; a recruiting officer endeavors to fill up the companies, and sergeants expert as drill masters attend to the instruction.

Equipment tables prescribe what articles shall be carried on the person, on the horse, in the kit, and in the baggage by officers, native officers, men, and followers.

Certain articles, such as blankets, shoes, putties, socks, and waterproof sheets are furnished free; on the winter scale, certain articles of warm clothing are also furnished free.

AMMUNITION.—First regimental reserve, 50 rounds per man. This is carried on 30 mules in boxes of 600 each.

Total regimental reserve, 130, of which 80 rounds per man are carried on 19 camels. Recent regulations increase reserve ammunition to 200 pounds per rifle.

Intrenching tools for battalion:

Felling axes	8
Picks	80
Bill hooks	40
Shovels	60

The total pioneer equipment is carried on 3 mules per company and 8 mules for the two wings; total, 32.

The total obligatory transportation of a battalion is 84 mules, to which is added normal transportation on 102 camels, the normal transportation being what is usually furnished on mobilization.

Three mules carry the signaling outfit for the battalion.

When camels are not available there is alternative transportation at a fixed scale, the combinations being as follows:

First alternative: Obligatory pack mules and mule carts.

Second alternative: Obligatory pack mules and pack mules.

Third alternative: Obligatory pack mules and bullocks.

The weight of reserve rations and compressed fodder prescribed to be carried to detraining stations is five tons.

Spare parts for small arms are also carried. All the details are carefully worked out in tables.

ESTABLISHMENT OF A REGIMENT OF BRITISH INFANTRY IN INDIA.*

	Peace.	War.
Lieutenant colonel.....	1	1
Majors.....	4	-----
Captains.....	5	-----
Lieutenants.....	9	25
Second lieutenants.....	8	-----
Adjutant.....	1	1
Quartermaster.....	1	1
Medical officer.....	-----	1
Total.....	29	29
Warrant officers:	-----	-----
Assistant surgeon.....	-----	1
Sergeant major.....	1	-----
Band master.....	1	-----
Noncommissioned officers and men:	-----	-----
Quartermaster sergeant.....	1	-----
Sergeant drummer.....	1	-----
Armorer sergeant.....	1	-----
Orderly room sergeant.....	1	-----
Orderly room clerk.....	1	-----
Color sergeants.....	8	800
Sergeants.....	32	-----
Sergeant pioneer.....	1	-----
Corporals.....	40	-----
Drummers.....	16	-----
Privates.....	900	-----
Total.....	1,001	800
Commissariat.....	-----	1
Public followers:	-----	-----
Tindal.....	1	-----
Lascars.....	4	-----
Ward servants.....	-----	1
Bhistis.....	16	16
Sweepers.....	16	8
Bazaar establishment.....	2	2
Cooks.....	-----	8
Bearers.....	4	12
Total.....	43	47
Private followers:	-----	-----
General servants.....	-----	10
Officer's syces.....	-----	9
Officer's grass cutters.....	-----	4
Medical officer's servant.....	-----	1
Assistant surgeon's servant.....	-----	1
Assistant surgeon's pony attendant.....	-----	1
Total.....	-----	26
Commissary sergeant's servant.....	-----	1
Commissary sergeant's pony attendant.....	-----	1
Cattle:	-----	-----
Chargers, officer's.....	5	9
Ponies, officer's.....	-----	4
Pony, assistant surgeon's.....	-----	1
Pony, commissary sergeant's.....	-----	1
Total.....	5	15

*The figures in these tables, in some instances seemingly incorrect, are as given in report.—Ed.

Among the articles prescribed to be carried on the person by officers are found the sword, revolver, watch, notebook, map, clasp-knife, field-glasses, first-aid packages, and emergency ration.

AMMUNITION.—Soldiers carry 100 Lee-Metford cartridges. First regimental reserve, 94 per man on 32 obligatory mules. Second regimental reserve, 145 Lee-Metford and 26 per pistol; 100 maunds on 20 camels.

The total transport for the regiment amounts to 649 maunds, which is carried on 100 obligatory pack mules and 135 camels; adding 5 per cent reserve, 105 mules and 142 camels.

Reserve rations and forage to detraining station weigh 13,000 pounds.

The allowance of tentage, baggage, etc., and the arrangement about alternative transportation, and formation of depots are much the same as in the native regiments.

ESTABLISHMENT OF FIELD BATTERY, R. A.

	Peace.	War.
Officers.....	5	5
Noncommissioned officers and men.....	157	162
Total.....	162	167
Assistant surgeon.....		1
Native drivers:		
Naik.....	1	1
Drivers.....	8	9
Total.....	9	10
Public followers:		
Tindal.....	1	
Store lascars.....	12	4
Tent lascars.....	2	
Mistry smith.....	1	1
Fireman.....	1	1
File men.....	2	2
Hammer men.....	2	2
Mistry carpenter.....	1	1
Carpenter.....	1	1
Mochis.....	2	2
Ward servant.....		1
Pakhalis.....	3	3
Bhisti.....	1	
Sweepers.....	3	3
Jemadar syces.....	3	3
Syces.....	73	23
Grass cutters.....	110	
Bullock drivers.....	2	
Cooks.....		3
Bazaar establishment.....	1	2
Bearers.....	4	6
Total.....	225	58

ESTABLISHMENT OF FIELD BATTERY, R. A.—continued.

	Peace.	War.
Private followers:		
General servants.....		2
Officers' syces.....		10
Officers' grass cutters.....		5
Warrant officer's personal servant.....		1
Medical officer's pony attendant.....		1
Total.....		19
Cattle:		
Horses, private.....	7	10
Horses, public.....	110	143
Ponies, officers'.....		6
Pony, medical warrant officer's.....		1
Bullocks.....	5	
Total.....	122	160
Harness and saddlery:		
Sets, universal.....	13	24
Double sets, lead.....	28	30
Double sets, wheel.....	19	25
Ordnance:		
Guns.....	6	6
Carriages.....		
Gun carriages.....	6	6
Wagons, ammunition.....	6	6
Wagon, forage.....	1	1
Wagons, store.....	2	2
Store cart.....	1	1
Total.....	16	16
Ammunition:		
Shrapnel.....	828	828
Case shot.....	36	36
Total.....	864	864

	No.	Chargers.	Batmen.	Syces.	Grass cutters.
Major.....	1	2	1	2	1
Captain.....	1	2	1	2	1
Subalterns.....	3	6	3	6	3

Reserve rations and forage to detraining stations, 4 tons.

Total transport of field battery 180 maunds, for which there are 8 obligatory mules and 41 camels, including 5 per cent reserve.

AMMUNITION COLUMN TO SUPPLY THREE AND FOUR BATTERIES.

	Peace.	War.
Officers.....	3	4
Captain.....	1	1
Lieutenants.....	2	2
Total.....	3	3
Hospital assistants.....	1	1
Sergeant major.....	1	1
Quartermaster sergeant.....	1	1
Noncommissioned officers and men:		
Farrier sergeant.....	1	1
Shoosmiths.....	2	2
Collar maker.....	1	1
Trumpeter.....	1	1
Noncommissioned officers.....	3	4
Gunners.....	6	8
Total.....	14	17
Public followers:		
Lascars.....	12	16
Mochies.....	3	4
Native smiths.....	3	4
Head carpenter.....	1	1
Carpenters.....	2	2
Fireman.....	1	1
File man.....	1	1
Jemadar syces.....	2	2
Syces.....	32	40
Syces, attached.....	3	4
Pakhali.....	1	1
Bhistis.....	1	1
Sweepers.....	2	2
Bazaar establishment.....	2	2
Ward servant.....	1	1
Bearers.....	6	6
Cook.....	1	1
Total.....	74	89
Private followers:		
Servants, syces, and grass cutters.....	15	15
Cattle:		
Horses, private.....	6	6
Horses, public riding.....	4	4
Horses, attached.....	3	4
Horses, draft.....	138	178
Ponies, officers'.....	3	3
Pony, hospital assistant's.....	1	1
Total.....	155	196
Harness and saddlery:		
Sets, universal.....	4	4
Double sets, lead.....	45	58
Double sets, wheel.....	24	31
Traces, short, pairs.....	3	4
Total.....	76	97
Carriages:		
Wagons, ammunition.....	18	24
Wagon, forage.....	1	1
Wagon, store.....	1	1
Gun carriage.....	1	1
Total.....	21	27
Rounds per wagon.....	74	74

ESTABLISHMENT OF A NATIVE CAVALRY REGIMENT (BENGAL OR BOMBAY).

	Peace.	War.
British officers:		
Commandant	1	1
Squadron commanders	4	4
Squadron officers	4	5
Medical officer	1	1
Total	10	11
Native officers:		
Ressaldars	4	
Ressaldars	4	
Ressaidar wordi-major	1	
Jemadars	8	
Total	17	
Noncommissioned officers and men:		
Kote duffadars	63	457
Duffadars		
Sowars	518	
Camel sowars	8	8
Trumpeters	8	8
Farriers	8	8
Salootri	1	1
Ward orderlies (dismounted sowars)	2	1
Total	608	483
Hospital assistants	2	1
Public followers:		
Mochlis		4
Lascar	1	
Iron smiths		4
Bhistis	8	8
Bazaar establishment	3	2
Cooks		16
Pakhalis		8
Sweepers		8
Bearers	4	6
Syces, native officers	17	
Grass cutters	17	
Grass cutters, double	316	198
Hospital water carrier	1	
Hospital sweeper	1	
Total	368	263
Private followers:		
Officers' servants		11
Officers' syces		23
Officers' grass cutters		12
Native officers' and hospital assistants' servants		9
Hospital assistant pony attendant		1
Total		56
Cattle:		
Horses, officers'	21	23
Horses, troop	615	495
Ponies, officers'		12
Ponies, native officers'		9
Ponies, grass cutters'	316	198
Pony hospital assistant		1
Camels, riding	8	8
Total	960	746

Depot establishments:

- 1 squadron officer.
- 2 native officers.
- 2 acting kote duffadars.
- 6 duffadars.
- 2 pay duffadars or sowars.
- 2 farriers.
- 2 trumpeters.

109 sowars.

Transport, peace:

87 mules, with 87 drivers.

Transport, war:

On march, 1 jemadar, 2 duffadars, 59 drivers.

In camp, 45 drivers and mules, with 207 grass cutters of regiment, will supply forage, being at rate of 1 grass cutter and pony or mule for every 2 horses or camels.

Chargers, ponies, and private followers.

	No.	Chargers.	Ponies.	Servants.	Syces.	Grass cutters.
Commandant -----	1	3	2	1	3	2
Squadron commanders -----	4	8	4	4	8	4
Squadron officers -----	5	10	5	5	10	5
Medical officers -----	1	2	1	1	2	1
Native officers -----	17	-----	9	9	-----	1
Hospital assistants -----	1	-----	1	-----	-----	-----

Field-service Regulations, under "Field-service kit," prescribes what is to be worn on the person, on the saddle, and what is for transport (70 pounds).

Baggage to be weighed before leaving on service, and weights not to be exceeded.

Distribution and weight of tentage is similarly prescribed.

Allowance of books and stationery for campaign is fixed in tables.

Ammunition, 60 rounds per carbine of 466 to regiment, in 45 boxes.

Signaling, hospital, and medical outfit also prescribed.

Pioneer equipment for regiment: Sixteen axes, 40 shovels, 16 picks, and 2 crowbars. They are carried on troop horses, one per squadron.

For forges and saddle shops of regiment there are allowed 1,280 pounds.

Loads are:

160 pounds for pack mules.

400 pounds for mule carts.

800 pounds for bullock carts; not to be exceeded.

Reserve rations and forage for regiment carried to detrain-
ing stations, weight 12 tons.

The regimental adjutant keeps a "mobilization box." Con-
tents: Books, orders, documents relating to mobilization, such
as lists of men absent (kept up quarterly), list of those to be
left behind, lists of equipment, blanks and stationery for two
months.

Officers to have a field kit constantly in readiness.

All officers and men are inspected by surgeons before start-
ing. All clothing and equipment is looked over; also all
horses, eliminating those under 5 or over 15 years of age.

The regiment for the field has 10 British combatant officers
and 500 natives; it is divided into four squadrons. The
remainder is formed into a depot, which has one British officer
for administrative duties, one *ressaldar*, and one *jemadar*;
the former for recruiting and equipment, the latter for train-
ing and discipline. Eight *duffadars* are assigned for drill.
All surplus baggage is stored after being carefully marked.
There are strict rules about care of stored property.

ESTABLISHMENT OF COMPANY OF SAPPERS AND MINERS.

	Peace.	War.
British officers	2	4
British noncommissioned officers	2	2
Native officers	3	3
Hospital assistant		1
Native noncommissioned officers and men :		
<i>Havildars</i>	6	6
<i>Naiks</i>	10	10
<i>Sappers</i>	150	150
<i>Buglers</i>	2	2
<i>Driver establishment</i>	20	20
<i>Ward orderly</i>		1
Total	188	189
Public followers :		
<i>Bhistis</i>	2	2
<i>Sweepers</i>	3	2
<i>Cooks</i>		5
<i>Lascar</i>	1	
<i>Bazaar establishment</i>		1
<i>Bearers</i>		6
<i>Pakhalis</i>		2
Total	6	18
Private followers :		
<i>Officer's personal servants</i>		4
<i>Officer's syces</i>		9
<i>Officer's grass cutters</i>		4
<i>Hospital assistant, servant</i>		1
<i>Hospital assistant, pony attendant</i>		1
Total		18
Cattle :		
<i>Chargers</i>	2	8
<i>Company first line equipment mules</i>	18	18
<i>Ponies, officers'</i>		4
<i>Pony, hospital assistant</i>		1
Total	20	31

ENGINEER SECTION AND PARKS.

	Printing section.	Photo-lithograph section.	Pontoon section.	Engineer field park.	Engineer siege park.
British officers			1	1	1
British warrant officers				1	1
British noncommissioned officers	1	2	2	2	2
Native officers			2		
Hospital assistant			1		1
Total	1	2	6	4	5
Native noncommissioned officers and men :					
Havildars			3	1	1
Naiks			4	1	1
Sappers	4	4	64		2
Bugler			1		
Ward orderly			1		
Total	4	4	73	2	4
Public followers:					
Bhistis	1	1	1	1	1
Cooks	1	1	2	1	1
Pakhali			1	1	1
Bearers			6	6	6
Sweepers			1	1	
Native writer				1	1
Hired artificer				1	18
Khalassis				12	20
Total	2	2	11	35	48

Private followers: 3 servants, 6 syces, 3 grass cutters for officers; 2 servants and 2 pony attendants for hospital attendants. Cattle: 6 chargers and 5 ponies.

Field kits, baggage, tents, books, forms, and stationery are similar to those of other troops.

Ammunition: The regimental reserve is 60 rounds per man and 26 rounds per pistol.

The company also carries hospital establishment, medical stores, and great coats on 55 obligatory mules.

The printing section has 6 mules.

The photo-lithographic section also has 6 mules.

The pontoon section also carries reserve ammunition, etc., and the bridge train. The latter is drawn by 12 pack mules and 268 bullocks, and weighs 1,975 maunds.

The engineer park weighs 861 maunds.

The engineer siege train weighs 1,626 maunds.

Special orders are usually given concerning the mobilization and carriage of the siege park and pontoon sections.

The organization evolved by the British forces in India differs from that of European armies in many details. When the regiments of infantry go to war they only send a battalion of eight companies of an average strength of 90 natives. About one-fifth of the normal strength is left at home to take

care of public property and the families of the fighting men. These being organized, correspond to the depot battalions of European armies.

The British officers are all superior in rank to the native officers; the caste system of India lending itself admirably to this arrangement. The sphere, officially and socially, of each is clearly defined, both races having their own reasons therefor; the prejudices of each are not only respected but guarded by authority, and friction, so likely to arise in other armies, is to a large extent avoided.

The number of camp followers seems quite large. The frugality of the natives and the low rate of pay permit this; with European troops they would be kept busy providing for themselves.

By sending only what are to a certain extent picked men into a campaign many elements of weakness are removed and casualties on account of sickness or exhaustion should be low. Filling up battalions to uniform strength is also an advantage, for it equalizes the work of all the units.

Among the camp followers there are men of special utility in caring for the equipment of the regiment; others, such as bhistis, or water carriers, and pakhalis, or water carriers with pony equipment, are found necessary in hot climates, especially in regions where water is scarce.

The division of labor common in the Orient, and the small amount of work one man will do, also foster the increase in the number of camp followers. It is to be remembered, however, that a large percentage of the expense of camp followers is compensated for by the cheapness of forage for the many animals and by the rendering of many services which in our army are hired.

The keeping of a mobilization box is an idea which might well be adopted in modified form in our service. It would at least furnish a reserve supply of stationery and blanks which could be drawn on until depots are established.

The organization of the British infantry is similar to that of the native regiments, except as to officers, and calls for no special comment. The British field battery is of the same strength as ours; it has a diversified number of camp followers.

The organization of the cavalry regiments is into four squadrons and a depot. The number of servants, syces, grass

cutters, and other camp followers is astounding; of grass cutters there is one with a pony or mule for every two horses. The horses are obtained in a peculiar way. Each native before enlisting puts up a sum of 200 to 300 rupees into the horse fund or chundee. The British Government furnishes only the arms and ammunition. The silladar horses and equipments are property of the regiment; a British officer administers the fund. Upon expiration of term of service they become the property of the soldier. If he desires to dispose of them, the officers appraise their value and the money therefor is paid to the man.

ARMAMENT AND EQUIPMENT.

INFANTRY.

ARMAMENT.—Rifle, Lee-Metford; latest model is known as the Lee-Enfield; caliber, .303; sights to 1,800 yards; peep-sights at left side, 1,600 to 2,900 yards. The magazine carries 8 cartridges, in some guns 10, latest model. The cut-off is a simple slide across opening of magazine.

The magazine, which is in front of the trigger guard, is loosened by a separate trigger and then hangs by a short chain.

The bayonet is of moderate length, similar to ours, but has double edge. The rifle seems to be good and serviceable. The officers speak highly of it. It has good endurance, as the native soldier takes excellent care of it. Some that had been in use for nine years appeared almost as good as new, having been rebronzed. As a single-loader it seemed to be convenient to operate.

The ammunition is carried in three pouches, two in front above the hip, and the third at the small of the back. The belt of fair leather, as are the pouches, is supported by two broad straps passing over the shoulders and crossing on the back. All the fair leather equipments seen here presented a very handsome appearance.

The British soldier in the Orient carries but little besides his rifle and ammunition. A water bottle and a small haversack capable of holding one day's rations completed his load. In cold weather he also carries a warm coat. The rest of his outfit is carried on pack mules. This at once places him at great advantage; he should still be in good condition after other troops are fatigued with their burdens.

CLOTHING.—The foot-gear consists of black leather brogans, with thick soles, hobnailed. They reach above the ankle and are laced. They impress me as being thick, heavy, and stiff. Socks and underwear are not worn by native troops as a rule. Putties are of wool, khaki color. Trousers are loose, baggy at the knee, where they are confined by the putties; color of trousers, khaki.

The blouse, also of khaki, has breast pockets and brass buttons. The shoulder flaps of khaki color have one end sewed to the blouse; the other is fastened with a button. The regimental device and lettering are pinned to the flap. The collar is low standing, without ornaments. Turbans, khaki color, with peaked hat inside. The turban is wound around the head and holds the peak or kullah, which is gold-braided for officers.

In some regiments sandals are worn, as regimental commanders may prefer.

The foregoing is the clothing of the Twenty-sixth Baluchistan Regiment. The other native regiments differ only in detail.

The British troops wear khaki-colored helmets, waterproof, flexible, and durable.

The full-dress uniforms of native regiments observed on the occasion of the Field Marshal von Waldersee's entrance into Peking, October 17, 1900, were as follows:

Twenty-fourth Punjab Regiment: Turban, dark blue; coat, scarlet, with broad white border; white collars, cuffs, and shoulder flaps. Trousers, black, knee, red welt, $\frac{1}{4}$ -inch wide; putties, dark blue. Sandals, turned up at toes. A few men of the Twenty-second Punjab Regiment (attached) had red and white stripes in their turbans, dark collar and shoulder flaps, and wore brogans.

First Sikh Regiment: Turban, plain khaki; coat, khaki, yellow collar, flaps, and cuffs; trousers, khaki; putties, light-brown.

Third Sikhs: Attached, black trimmings.

Twenty-sixth Baluchistan Regiment: Turban, khaki; red peak. Coat, khaki, piped with red; red collars, cuffs, and flaps. Trousers, scarlet; short white leggings. Officers have gold shoulder knots, and collars are edged with gold braid.

Seventh Rajput Regiment: Turban, khaki, with red ornaments on front; coat and trousers, khaki; red chevrons for noncommissioned officers. Putties, light brown.

The camp followers conform in a general way to the uniforms of the troops. A long strip of khaki-colored muslin is wound around and forms the headdress. Another strip is wound around the waist, and a third strip is converted into a pair of trousers. A sort of jacket over the shirt completes the toilet, which is seen to be of the simplest, rendering the tailor's art largely superfluous.

The quality of the clothing, especially of the woolens, is excellent. The warm coat, British, of khaki color is of heavy woolen goods and lined. It is loose, and reaches down about one-third of the way between the hip and the knee. The officers and many of the men have vests of skin, and the coat also is sometimes lined with sheep or other skin.

The officers always present a clean, neat, and comfortable appearance. The full-dress uniforms in khaki are handsome. They appear to be well satisfied with the armament, clothing, and equipment of their infantry. In the campaigns in India, it may be required to adapt itself to so many different kinds of climate and temperature, at such short intervals of time, that observation in the regular climate of the temperate zone forms a rather inadequate basis for criticism. The shoe does seem too heavy, a criticism borne out by the fact that many regimental commanders prefer the sandal. Its durability in rough country is not doubted, but we may well question the mobility of men with legs of such deficient muscular development when operating in hill country and handicapped with such shoes.

CAVALRY.

The native, or Silladar, cavalry of the British forces is mounted on light, active, medium-sized, and well-bred horses, purchased with the chundee or horse fund already explained. They are colored by squadrons. The government brand is on the hoof only, and is renewed at every third shoeing. The horses are picketed in various ways, some by halter and one hind foot, others by one fore foot and one hind foot. Many sore backs were observed.

ARMAMENT.—Carbine, saber, and lance. Officers carry a revolver. The carbine is still of the old Enfield pattern, single shot. It is carried in a boot, hanging vertically from the right of the cantle. The saber is attached to the belt. It is sharpened before starting on campaign. The lance is of

bamboo, with a triangular point. The revolver carried by the officers seems a poor affair. Ammunition is carried in pouches attached to belt. All equipments are of fair leather. The saddle, also of fair leather, has very long side bars. There is no cincha, the fastening being with strap and buckle. Two pairs of extra shoes are carried in small pouches resting behind the cantle. There are two large pouches attached to pommel. The biting is with curb and snaffle; the curb bit is too heavy, according to our notion. The picket ropes are fastened around the neck, and, in some cases, a net or bag is carried below the girth, which seems a curious place for it. The only feature attracting notice as perhaps worthy of imitation is the lining of closely shorn sheepskin on the under surface of the bars. This makes a contact between the saddle and pad or blanket, which prevents the slipping to the rear, so common at rapid gaits.

The uniform is khaki, similar to that of the infantry, except in the matter of riding breeches.

The saddlery and equipment are remarkably well cared for. The shoeing is excellent.

ARTILLERY.

The British artillery has already been reported upon by an artillery officer. A few additional observations are submitted. The construction and equipment of the battery strikes one as solid—heavy enough for siege artillery. The spare wheel is carried in front of the rear chests of the caisson, an awkward place to get at. The arrangements for handling the ammunition are also unsatisfactory; it being necessary to take the projectiles and powder from the chests and place them in leather cases resting on the limber bars. The large, closed store cart has a weight of over 50 pounds on the pole yoke. The Australian horses, or “walers,” as they are called, are rawboned, underbred animals. They require a great deal of grain to keep them in condition, and they are lacking in endurance. They are noticeably weak in the hind quarter. Many sore backs are observed in the battery. The supply of artificers of various kinds appears more than ample. The whole equipment is well cared for.

CAMP FOLLOWERS.

The number of camp followers present with the British force in the province of Pechili is not definitely known, but

there is no reason to believe that it is much below that authorized by regulations. For the division of very nearly 10,000 combatants, officers, and men, the scheme of mobilization proposes the use of 7,715 public and 1,245 private followers, 4,332 belonging to the coolie corps. Out of these 8,950 camp followers, 5,939 were to be used on the line of communications, leaving practically 3,000 for use with the troops. The allowance of camp followers for the different organizations is as follows:

	Public.	Private.
Division staff	1	138
Brigade staff		35
Infantry regiment	59	35
Cavalry regiment	263	56
Battery	72	21
Pioneer regiment	59	35
Ammunition column, etc	25	3

The discipline among the men, considering all the circumstances, was remarkably good. There was no drunkenness, which is accounted for by their religion, and but few cases of rape or murder were heard of. It is very doubtful whether an equal number of Caucasian camp followers of any nation could, under the circumstances, have been held under even approximately as good restraint. The great bulk of them seem to be continually active in bringing in forage, fuel, and other supplies for the troops, in addition to the regular transport service from the base.

TRANSPORTATION.

The total number of pack mules contemplated to be used for the division was 2,007, to which may be added 621 ponies. Of these 432 pack mules and 175 ponies were for the line of communications. The various kinds of transportation service were carried on by means of coolies, carts, and pack mules; later on, trains of camels impressed or hired were also largely employed.

The pack mule of India is a small, hardy animal with slender limbs. He is expected to carry a load of 2 maunds, or 160 pounds. The saddle consists of two large pads on wood joined by iron arches. It is fastened to the animal with a strap. Attached to the saddle is a breeching with crupper, and also

breast straps. This harness serves the double purpose of preventing slipping of the load when going up or down steep slopes and being used for draft purposes under favorable conditions. The saddle sits down low, thus bringing the pressure on the ribs rather than on the back; the arches are sufficiently high to prevent possibility of contact with the backbone. The load having been made up in packages of equal weight, secured with ropes in such a way as to leave two iron rings free to slide on the part protected by leather, are simply hooked to the saddle and suspended from two stout iron hooks about 4 inches below the summits of the pommel and cantle arches. A stout chain passes from the halter to a hook in the cantle of the preceding mule; they are thus fastened together in groups of three, and the native driver leads the bunch on foot.

For draft purposes two iron bars from the cart are secured to the tops of the saddles; these support the pole of the cart; it is then only necessary to hook traces to the harness which is already on the mules. The whole arrangement is simple and inexpensive. It could undoubtedly be much improved by our practical people; but the idea is there, and it is good. Such transportation would be most suitable for our infantry detachments operating in close or rough country in the Philippines. There is no means of making an accurate comparison of the cost of the pack feature of this transportation with our own pack trains for lack of definite data available here or elsewhere. The following is submitted as a conservative guess at the cost of maintenance of fifteen of each kind of mules in service for one year in the Philippines:

India mules:

Fifteen mules at \$30.....	\$450
Fifteen harness and pads at \$20.....	300
Salaries of five drivers at \$10 per month,* native ration included.....	600
Total.....	1,350

American pack-train:

Fifteen mules at \$150.....	2,250
Fifteen aparejos complete at \$50.....	750
Salaries of three packers at \$60 per month and ration.....	2,400
Total.....	5,400

* Usual salary paid servant boys now is \$8 (Mexican) per month.

This takes no account of the increased cost of superintendence with riding mules, bell mares, chief packer, cook, and blacksmith; nor of the transportation of men and animals from the center of the United States and across the Pacific Ocean. Nor is even an attempt of comparison made in the cost of forage, the American mule being fed on oats and hay carried half way round the world, whereas the Indian mule would thrive on a little palay and the native grass cut by his driver. The American mule can carry a considerably greater load, but his habitual load does not exceed that of the smaller mule by more than 30 per cent. These data are submitted for serious consideration; they certainly justify immediate experiment. It is believed that with a little care and good judgment an ideal transportation, both pack and wheel, for our infantry commands in the Philippines, could be devised, leaving our large teams for the supply of stations situated on fairly good roads, and our American pack trains to accompany the cavalry. The pack and harness arrangement, with simply a wider spread of arch, could also be applied to the ox or to the carabao for pack or draft purposes through the tropical morass. As a matter of fact this would not be an experiment in the true sense of the word, but simply a trial of something that has been in use for centuries under conditions closely approximating our own. It is safe to say that our present back transportation for infantry costs five times as much as it should.

GENERAL OBSERVATIONS AND COMMENTS.

There seems to be no effort, not even a desire, on the part of the British staff to preserve units intact. In their orders for a march, and in their reports, we find them referring to so many rifles or lances rather than to battalions, companies, platoons, or squadrons. There may be special reason for this, making it desirable to have fragments of regiments at various points; ordinarily such a course is not a good example to be followed.

The British field force at the time of departure from Tientsin is reported as 2,920 men. On the road it is a difficult matter to make an estimate of the number of fighting men in a column on account of the large number of camp followers. What appears to be a formidable force may really be much smaller for business purposes. An official distribution statement of the British forces in Pechili for October, 1900,

furnished by the chief of staff, gives the following stations and figures:

Pekin:

Lieut. Gen. Sir A. Gaselee, K. C. B., A. D. C.
 Headquarters staff.
 First brigade staff.
 Twelfth battery Royal Field Artillery, 6 guns.
 Royal Welsh Fusiliers, 290 men.
 First Bengal Lancers, 340 men.
 Sixteenth Bengal Lancers, 440 men.
 Hongkong Artillery, 2 guns and 1 Maxim.
 Madras Sappers and Miners, 170 men.
 Seventh Bengal Infantry, 290 men.
 Twenty-fourth Punjab Infantry, 300 men.
 First Sikh Infantry, 400 men.
 Twenty-sixth Bombay Infantry, 460 men.
 Total of all arms 3,100, with 8 guns and 1 Maxim.

Liukochao:

Capt. A. H. Bingley, detachments and details, 50 lances, 80 rifles, and 1 Maxim; total 130.

Fengtai:

Capt. G. J. Soady, 20 lances, 280 rifles, 1 Maxim.

Tungehao:

Maj. T. Scott, 25 lances, 370 rifles.

Matao:

65 lances and 50 rifles.

Hohsiwu:

Capt. C. Barnes, 25 lances and 85 rifles.

Tsaitsun:

55 lances.

Yangtsun:

26 lances and 85 rifles.

Peitsang:

25 lances and 85 rifles.

Hsiku:

50 rifles.

Tientsin:

Brig. Gen. L. Campbell, commanding lines of communication and staff.
 Battery B, Royal Horse Artillery, 6 guns.
 Royal Welsh Fusiliers, 115 men.
 Australian Contingent, 375 men, 4 guns, and 4 Maxims.
 Hongkong Regiment, 175 men.
 Chinese Regiment, 130 men.
 Bombay Sappers and Miners, 180 men.
 Seventh Bengal Infantry, 225 men.
 Twenty-fourth Punjab Infantry, 300 men.
 Thirty-fourth Punjab Pioneers, 730 men.
 First Sikh Infantry, 185 men.
 First Madras Pioneers, 450 men.
 Total all arms, 3,000 with 10 guns.

Sinho:

Capt. the Hon. H. D. Napier, 75 rifles.

Approximate totals of fighting men and guns, 1,070 lances, 6,540 rifles, 10 guns.

The British forces are provided with Maxim guns and necessary ammunition at the rate of one per battalion of infantry or pioneers. There are no reports to show that effective offensive use of them was made in the campaign. The British troops take excellent care of themselves. Besides arranging for the comfort of their men and animals, they have accumulated supplies of fuel and forage, repaired the British legation, macadamized streets, put up revetments, etc. There are many indications showing that they are experienced campaigners. The readiness with which they put up small flags on buildings, carts, and stores of all kinds; their skill in finding the supplies and valuables of the enemy; the posting of signs and guide posts—these, and many other details, show an experience in which American troops are deficient. Their officers, also, had superior knowledge of the character of foreign troops and knew how to conduct their intercourse with them, which was another advantage.

The discipline of the British troops is excellent. Through the caste system of India, respect for superiors is a habit with the native. The Mohammedan does not drink, another source of aid to good discipline. They take the best of care of their horses, arms, and equipments, and appear to be properly dressed on all occasions. They are respectful, not only to their own, but to foreign officers, saluting on every proper occasion. In battle they will protect their British officer at all hazards and go wherever he leads them. A large part of the British officers speak the native tongue, and the understanding between the European and the Indian seems to be perfect. In case regiments of native troops in the Philippines are contemplated, a detailed study of the British system in India can not fail to be of the greatest benefit to those who have the matter in charge.

Very respectfully,

J. T. DICKMAN,
Lieutenant Colonel Twenty-sixth Infantry, U. S. V.

**REPORT ON THE MEDICAL DEPARTMENTS OF THE
ALLIED FORCES IN NORTH CHINA.**

BY MAJ. W. B. BANISTER, SURGEON, U. S. V.

HEADQUARTERS CHINA RELIEF EXPEDITION,
PEKIN, CHINA, *November 16, 1900.*CHIEF SURGEON CHINA RELIEF EXPEDITION,
Pekin, China.

SIR: In compliance with letter from adjutant general's office, China Relief Expedition, dated October 16, 1900, I have the honor to submit the following report on the medical departments of the various nations represented. As the letter bears date of October 16, these observations were necessarily made after the close of the campaign and under somewhat different conditions than what prevailed during the campaign.

BRITISH.

The English, from the mixed character of their forces, the different customs and diet of the two factors, and peculiar caste customs of the natives of India, have two separate field establishments, one for English and one for Indian troops; in fact the entire medical departments are separate and distinct. They do not treat British and Indian soldiers in the same field hospital, but would have two field hospitals, one for each. In the British army there are six lines of medical assistance. The first line, the aid rendered on the field of battle by the medical officer of each unit and his hospital assistant, and they use the "first field dressing," which corresponds to our "first-aid package." Each soldier is provided with a first-field dressing, which is carried in an inner pocket on the right breast of the field-service khaki coat, the pocket being provided with a flap and buttons. It consists of, first, an outer cover of millerained khaki drill, sewn; second, an inner cover of thin waterproof (mackintosh), size 12 by 6 inches; third, a gauze bandage, $4\frac{1}{2}$ yards long; fourth, compress of compressed charpie, of flax between layers of gauze; fifth, antiseptic agent used is corrosive sublimate, 1 to 1,000. It will be observed that but one compress and but one bandage are provided, the triangular bandage being

omitted. The package examined by me belonged to the British service; another one I examined belonged to the Indian service and contained a triangular bandage, but the rest of the material was very coarse and rough. The first-aid package is inferior to the one in use in our service. Three trained stretcher bearers to a company and four to a squadron are allowed. Each hospital assistant carries a first medical companion, corresponding to our orderly pouch; and one set of stretcher bearers carries a field-surgical haversack, corresponding to our hospital-corps pouch; but in both instances are inferior to ours and it would not be to our advantage to copy them. So with each regiment or unit, there would be on the battle line one medical officer, one hospital assistant, and three stretcher bearers to each company. This is exclusive of the personnel at the dressing station, which is supplied from the bearer company. The basis of the British medical field service is the field hospital which is equipped for 100 beds, and is made up of four sections of 25 beds, each section distinct and complete in itself in equipment and personnel. The sections are designated as A, B, C, and D, and each section of medical and surgical stores is made up of five pairs of boxes, twenty pairs for each field hospital; each box is marked so as to indicate the number of the field hospital to which it belongs, the section, and the number of the box in each section. Two of these boxes are medical panniers, and one contains a case of instruments for amputation, etc., and they correspond to our medical and surgical chests, but the comparison is in our favor. Each box is limited not to exceed 80 pounds in weight, so that it can be carried by either coolies, mules, camels, or carts.

The field hospital can equip one bearer company, composed as follows:

- 2 medical officers.
- 4 assistant surgeons or hospital assistants, carrying field surgical haversacks.
- 5 ward servants or ward orderlies, carrying field medical companions.
- 2 cooks.
- 2 water carriers.
- 2 sweepers.
- 2 pairs field medical panniers for dressing station.
- 5 medical companions; one for collecting station and four for dressing station.

- 24 field surgical haversacks.
- 2 field hospital boxes (Nos. 6 and 7) containing spare splints, etc.
- 1 surgeon tent for dressing station.
- 1 Ford's lamp for dressing station.
- 24 tally books.
- 50 blankets for dressing station.
- 20 pillows carried in dandies.
- 12 towels.
- 6 wash basins.
- 1 pair of kajawales carrying kitchen utensils, brandy, essence of nut-ton, etc.
- 2 hospital distinguishing flags, 8 directing flags, 4 lanterns (bull's-eye) for searching for wounded after dark.
- Tents for wounded as required.

The bearer company carries the wounded from the collecting station to the dressing station, and then to the field hospital. We have nothing to correspond to the varied character of the British bearer company. Its personnel consists of but 15.

A British field hospital is composed, when packed, of twenty-eight packages, a native field hospital of twenty-three packages. On the advance from Tientsin to Peking the medical department of the British force, consisting of the Welsh Fusiliers, marines, and naval brigade, brought one section, but without tents, and one field hospital for Indian troops consisting of First Sikhs, Twenty-fourth Punjab Infantry, Seventh Rajputs, and First Bengal Lancers, but no tentage. As their losses were very slight this proved sufficient. The second line of medical assistance is the bearer company above described; the third, the field hospital; the fourth, the field hospitals along the line of communication with the base; the fifth, general hospitals, which are limited to a maximum of 500 beds; the sixth, hospital ships.

With the field hospital a medical-supply depot goes. On the march to Peking no regular system could be employed, as is generally the case with a flying column. The medical-supply depot was left back at Tientsin, and no tentage could be brought. The four sections containing the field hospital were incomplete. The wounded were removed from the fields to boats, and wherever transported, by dhoolies, which consist of litter beds suspended from long bamboo poles and closed in by green curtains, which protect the patient from the sun and public gaze. The British troops had eight of the dhoolies,

though the usual allowance is five to a section. As the Indian troops had four sections, this entitled them to 20 dhoolies, but they had 28. It requires four bearers to carry a dhooli, two at each end, and even then it looks like a heavy load. The wounded, after being collected, were carried to the hospital junks and by them conveyed to Tientsin and thence by boat to the general hospital at Weihaiwei. There was no transportation employed by any of the armies on the expedition that could compare with our hospital ambulances. In each section are two medicine panniers, one of the two containing a case of instruments similar to the capital operating case in our service.

In the British service the arms and accouterments are brought to the hospital with the patient and taken charge of by the pack store sergeant.

TRANSPORTATION.—On the Pekin expedition no other transportation seemed to be provided for the wounded than the dhoolies, and stretchers for use on the battle-field. The stretcher in use in the Indian service is composed of two bamboo poles with canvas stretched between, and an iron bar, to hold the poles apart, at each end. It has no legs, and so, when placed on the ground loaded, the patient would only have the thickness of the canvas between him and the ground.

The packages of the field hospital can be transported by coolies, pack mules, camels, etc. They have no transportation equal to our escort wagons for their supplies or equipments.

SANITATION.—In camps on the march the excreta, kitchen refuse, etc., are received in trenches and covered with dry earth several times a day. Latrine screens are provided, which consist of wide pieces of canvas and are very effective for the purpose. On the march from Tientsin orders were issued to boil all water used for drinking purpose, but in two days was revoked, as it was found impracticable to carry out the order. The British field hospital is located at the Chefoo Palace, is large and airy, and kept quite clean. The buildings on one side of the courtyard are used as wards for British troops, those on the other for native troops (Indian), but the two are separate in every respect, and both seem to be in good sanitary condition.

The dry-earth system is employed and the usual precautions are taken to prevent contagion and the spread of typhoid fever. Under field conditions elaborate systems of disinfection are not practicable and are not attempted. The interesting fact in this connection is the statement of the medical officers of the Indian medical service that the Indian troops are practically immune to typhoid fever, and they seldom see a case among them. The British troops are, however, as susceptible as the Americans. The cots in use in the Chefoo hospital were improvised by the pioneer corps, and though rough, were comfortable. The floor of the bed was made of interlacing rope, and mattresses were provided, but no sheets or pillow cases. Special diet for patients is provided out of the stock of "medical comforts," consisting of arrowroot, concentrated soups, condensed milk, corn flour, extract beef, essence of mutton, and pepper. It seems to be the opinion of the medical officers of the British service that the medical department is undermanned and no allowance is made for probable casualties, sick men, etc. The most valuable feature of the English medical department is the definite composition of the field hospital. It is composed of four sections, each complete in itself and with its own independent transportation for its equipment. This independent transportation is one of the greatest needs of our medical department, and the adoption of the English field hospital system would be a decided advantage. The field hospital is stored in the depots, rigidly inspected, and kept up to the standard requirements. When a force is mobilized, so many sections, or one or more field hospitals, are ordered to accompany it, and so the medical department of the command is not left to, possibly, an inexperienced medical officer, but always consists of a standard equipment. The general condition of the troops is good and there seems to be but little sickness among them at present, and but four cases of typhoid fever have occurred, notwithstanding the fact that the effort to have all drinking water boiled was abandoned.

In the cavalry, instead of a field surgical haversack, a field surgical cavalry bag is provided which is similar in contents to our surgeon's field case.

Field hospital of four sections of English army.

	British sections.				Native sections.			
	1.	2.	3.	4.	1.	2.	3.	4.
Medical :								
Army medical staff officers	1	2	3	4				
Indian medical service officers					1	2	3	4
Hospital assistants					2	4	6	8
Medical warrant officers	2	4	6	8				
Military :								
Pack-store sergeants	1	2	3	4				
Pack-store havildars					1	2	3	4
British nurs. orderlies	2	4	6	8				
Native ward orderlies					2	4	6	8
Hospital :								
Ward servants	5	10	15	20				
Cooks	2	3	5	6	1	2	3	4
Water carriers	2	3	5	6	1	2	3	4
Ward sweepers	3	5	8	10	2	3	5	6
Carpenters				1				1
Pakhali Bhisti	1	2	3	4	1	2	3	4
Commissariat :								
First hospital storekeeper	1	1	1	1			1	1
Second hospital storekeeper			1	1	1	1	1	1
First assistant hospital storekeeper	1	1	2	2				
Second assistant hospital storekeeper					1	1	2	2
Tailors	1	1	2	2				
Head washerman	1	1	1	1				
Washerman	1	3	5	7	1	1	2	2
Total	24	32	66	55	14	24	38	49

JAPANESE.

The medical department, including all grades and assistants from the combatant force, is chiefly characterized by the large number allowed for hospital purposes, and in this respect is on a scale that we could hardly hope for in our service, but the result is the prompt removal of the wounded from the field, with sufficient personnel to form temporary field hospitals from the front to the base. Each regiment on active service has 6 surgeons, 3 with the rank of captain and 3 lieutenants; 3 hospital stewards and 12 privates of the hospital corps; and 48 assistant stretcher bearers. These are soldiers detailed for this duty. The Japanese in their war experience so far have operated in large bodies, generally a division, as on this campaign, and their medical organization is with that idea and is divisional, capable of subdivision. They really have several lines of medical assistance. The first line is the use of the first field dressing, corresponding to our first-aid package, and consisting of a triangular bandage, three gauze compresses, and one safety pin. The three pieces of gauze are neatly wrapped in tough brown paper, the triangular bandage folded around it, and the whole package contained in waxed paper. Every soldier is provided with one.

The privates of the hospital corps are provided with what corresponds in appearance and contents to our Hospital Corps pouch. When a regiment goes into action three of the six surgeons belonging to it remain on the firing line with the privates, three of the surgeons take station at a temporary dressing station with the steward, and the patients are brought to them by the stretcher bearers and, when necessary, the forty-eight assistant stretcher bearers, or as many as can be utilized, but they do not wear the Geneva cross, and belong to the combatant force. This temporary dressing station is a second line of medical assistance. Each battalion is allowed two medicine panniers and one of the two contains a case of surgical instruments, and each is allowed four stretchers. With this material and the hospital corps pouches this station is equipped.

In the case of a division being in action, what the Japanese call the "sanitary corps" takes position some safe distance in rear of the regimental dressing station, and as soon as this is effected the three surgeons at the temporary dressing station at once leave it and join the sanitary corps. This body is composed of 500 men, in two companies of 250 each, and commanded by a major of infantry. From this body bearers are sent to bring into what now becomes the collecting station all the wounded from the temporary dressing station, and also to remove the wounded from the collecting station so formed to the field hospital. All work done toward the front from the collecting station is called front work and all toward the field hospital rear work, and is apportioned out accordingly. The field hospital is at a safe distance in rear of the sanitary corps and each field hospital consists of 200 beds. In case a forward movement is contemplated and the field hospital has not been evacuated, another field hospital moves forward with the division. The field hospital is the fourth line of medical assistance.

The station of the sanitary corps corresponds to our ambulance station and is the third line. On being asked what the plan of action was when the Japanese retreated instead of advancing, as had just been described, the chief surgeon of the Japanese forces in China replied that as in none of their wars so far the Japanese army had ever retreated, they had no experience in that direction. The field hospital is separable into

two sections, instead of four as in the English army, and is twice as large as the English field hospital.

From the field hospital the wounded are sent to the field hospitals on the line of communication. During this campaign the Japanese had field hospitals of this character at Tungchow, Yangtsun, Tientsin, and Taku. These hospitals constituted the fifth line of medical assistance. There are two field hospitals at Pekin, and the larger one is located in a Chinese house. The beds consisted of bedsacks filled with straw, rather uncomfortable beds, I should think, and inclosed in wooden frames. This frame rested on the platform which constituted the bed in a Chinese house. Each patient's feet were next to the wall, so that the nurses could easily feed and administer the medicine prescribed. There were sufficient wards to shift the patients to a new ward from time to time, while the one last occupied could be cleaned, disinfected and aired. Matting was on the floors, but practically no furniture in the wards themselves. The appearance on the whole was neat and clean, and the customary sanitary precautions employed to prevent the spread of typhoid fever, etc. A few cases of typhoid fever developed among the Japanese and were called Pekin fever, rather an unscientific classification. There were only thirty-six patients in hospital. In a country as dirty as China, with every sanitary rule violated by the natives, with every facility for water contamination from shallow wells, it would be expected that foreign armies would suffer principally from typhoid fever. Such has not been the case and but few cases have occurred in the allied forces during this campaign.

CAMP SANITATION.—Orders were issued in the Japanese army to have the water used for drinking purposes boiled, but the chief surgeon of their forces told me that practically the order was not carried out, and that the Japanese soldiers used the water wherever they reached it. For excreta the trench regularly covered with dry earth was used. They suffered principally with diarrhea and sunstroke. The general condition of their men at the end of a campaign in which they bore the most active part, always in the lead and clearing the country of the enemy in advance of the other allies, was excellent.

The Japanese soldier will probably average 5 feet 5 inches in height, is very compactly built, and presents excellent muscular development.

TRANSPORTATION.—The only transportation possessed by the Japanese was pack mules and native carts, and some coolies. The wounded were transported on stretchers. Their stretcher is composed of two bamboo poles with a canvas bed, the poles being kept separated by an iron rod fixed to one of the poles. When the rods are detached from one of the poles the litter can be rolled up or closed. It has no legs, and when loaded and placed on the ground only the canvas intervenes between the patient and the ground. It is much inferior to our litter in value and in appearance. Our litter has been much admired by the surgeons of the allied forces, particularly the Japanese, who have often commended it.

The patients were transported from the temporary field hospital on stretchers to the hospital junks and thence to Tientsin and Taku, from there on steamers to Heroshiman, Japan, where the base hospital was established. The field hospitals were located in houses, and, like all others, the Japanese did not seem to be provided with tentage for hospitals. Having made a campaign in the country before, and being well informed as to the resources of the theater of action, they no doubt reckoned on being able to dispense with tents. Their set of medical and surgical chests consists of six, the allowance for a regiment, and distributed one medical and one surgical to each battalion. They are of basket work, covered with a black leather case, with the red cross printed on it. The front of each case lets down, exposing the drawers just as in our cases, over which they possess no point of superiority. The case of instruments in the surgical chest is far inferior to ours. They have nothing in their equipment equal to, or similar to, our detached service chest. It was the general impression among medical men with the expedition that the Japanese medical service was most efficient and complete; removing the wounded promptly along their field hospitals to the base. This was not due to any superiority in equipment, but to a better organization of the personnel for field service and the numbers they have at their disposal for this service. This same feature was noticeable in other departments; for instance, in their pack trains there was a soldier to each animal, leading him and taking care of him.

The Japanese had one division of about 8,000 men. Their casualties, far greater than those of any other army, were as follows:

Wounded.....	900
Killed.....	200
	<hr/>
Total casualties.....	1,100
	<hr/> <hr/>
Deaths from disease.....	120
Total deaths.....	320

Eleven per cent were wounded and $2\frac{1}{2}$ per cent died. One surgeon and two privates of the hospital corps were wounded.

GERMANS.

The Germans had no force on the advance to Peking, and these observations were made in the German hospital at Tientsin, and the information relative to their medical department was obtained principally from the surgeon in charge and refers to field operations. A German battalion is nearly as strong as one of our regiments, a German regiment being about 3,000 strong. It is necessary to bear this fact in mind; otherwise, judged from our standard, the allowance of medical officers, etc., would appear out of proportion. The German regiments, however, that came to China had only two battalions to a regiment, making the organization 2,000 strong. Each regiment has 6 surgeons, the senior being a major, but having charge of a battalion, with a first lieutenant as assistant, as well as a general supervision. The other battalion would be in charge of a captain with a first lieutenant as assistant.

As only two battalions composed the regiments here there would be only 4 medical officers on duty with each. There is 1 noncommissioned officer, corresponding to our hospital steward, on duty with each company and instructed in all we understand by first aid, and in action they become assistants to the surgeons on the firing line and at the dressing station. In addition, there are four privates in each company who belong to the combatant force, and do not wear the Geneva cross, who are especially trained as litter bearers and in first aid, and one litter to each company is allowed. Each battalion has one medicine wagon for medicines and dressings, etc. The organization is really divisional, as with each division there is a sanitary company with 6 surgeons and 100 men to

act as litter bearers and bring in the wounded from the temporary dressing stations to the collecting station. When a division goes into action, the medical officer of the rank of first lieutenant remains on the firing line with each battalion, and the captain takes position at the temporary dressing station in the rear, and the wounded are brought there by the four stretcher bearers of each company. This arrangement is only temporary, for as soon as the sanitary company gets into position the surgeon at the temporary dressing station joins it and the temporary station is abandoned, and the wounded are thereafter brought from the firing line by the sanitary company. The sanitary company has 8 ambulances and 72 litters. The ambulances work as far forward toward the firing line as safety permits, and carry the wounded to the station of the sanitary company and from there to the field hospital. Each division has six field hospitals, and this does not seem excessive when it is borne in mind that a division is composed of not only four regiments, each 3,000 strong, but also its complement of cavalry and artillery. Each field hospital has a capacity of 200 beds, which in actual practice would approximate an allowance of 10 per cent of beds relative to the strength of the division. Each field hospital has 6 surgeons, 9 noncommissioned nurses, 12 hospital nurses, 2 noncommissioned officers to look after the clothes, arms, etc., of the patients, 18 men from the train division (laborers really), 1 wagon master, and 3 officials (consisting of an inspector, bookkeeper, and druggist), the entire personnel consisting of 55. There are 10 wagons belonging to the field hospital; 4 for blankets, pillows, etc., 2 for medicines, 2 for provisions, 1 ambulance, and 1 wagon of special pattern for the "officials" (three) to ride in. Two of the six field hospitals of the division are generally held in reserve, and when necessary one is moved up to the station of the sanitary company. The two field hospitals held in reserve can be used at some other point where the casualties have exceeded the 10 per cent allowance or move forward should the division advance, together with such other of the field hospitals as were not occupied.

TRANSPORTATION.—The first means employed for the removal of wounded is the litter. The litter used in the German army is different in many particulars from ours. It is much heavier, and consists of the litter poles with strong brown canvas attached, and the handles sliding in slots under

the litter pole, thus materially reducing the length of the litter when it is intended to be used in an ambulance. It is also provided with a head rest with a pocket underneath in which there fits a rectangular canvas pouch containing one package compressed cotton, six small triangular bandages, one large square bandage and two small, six first-aid packages, a small tin box containing one dozen safety pins, four cambric bandages, one field tourniquet, one aluminium drinking cup, two splint boards, a piece of sticking plaster, one iodoform sprinkler, one pair cutting-pliers to cut the clothes of the wounded when necessary, and one small bottle. The litter has legs of strap-iron arranged to fit on two wheels; the wheels are not used in the field, only for carrying patients short distances, such as from one wing of a hospital to another, and the arrangement is a very practical one for that purpose. One first-aid package is issued to each soldier in the German army and carried sewn into the lining of the front part of the bosom of the blouse on the left side. It is only half the size of the one in use in our Army, and consists of two gauze compresses, one narrow bandage, one safety pin in waxed paper, the whole inclosed in a gray canvas cover, sewn.

The orderly pouch is carried by the steward attached to each company and the allowance is one to every 200 men. The orderly pouch is larger than the one in use in our service, is composed of black leather with metal compartments in it and contains more medicines than ours, as the pouch under the head-rest of the litter contains the dressings. In addition, one large pouch of untanned leather is allowed to each 800 men, and these two, with the first-aid package each soldier carries, make up the equipment of the temporary dressing station. The large pouch is known as the bandagentornister. Each sanitary soldier has a pocket on either side of the belt in front for dressings, etc.; one contains a small case of instruments like the one in our hospital corps pouch.

The ambulances differ very much from ours, and carry four patients. The litters, two above and two below, are pushed in, the legs resting in grooves, and the interior of the ambulance is really divided longitudinally in two parts by an upright bar, with horizontal bars running the length of the ambulance for the inner legs of the two upper litters to rest in. It is not necessary to remove the patient from the litter to put him in the ambulance, as is the case with our ambulances

which carry four patients recumbent, and it is very difficult to transfer a patient badly wounded from a litter to the upper berths in our ambulance, as I have found in actual practice. The German ambulance is also heavier than ours, but not so well suited to bad roads. One medicine wagon is allowed to each battalion, but a special pattern is used at the field hospital which is most excellently arranged. The medicines are arranged in compartments in a rectangular case with small rollers on the lower side, and roll into the medicine wagon. For use the cases are drawn out and present the appearance of a handsome dispensing set in position. The dispensary and drug-room of the German hospital at Tientsin were equipped with the contents of two of these medicine wagons. The hospital has a capacity of 350 patients. These medicine wagons are used only at the field hospitals as they are quite heavy and not well adapted for bad roads.

HOSPITAL.—The German hospital for the troops here is located in a very large building known as the German University, and is excellently equipped for hospital work. The medical department is divided into three sections, one for internal diseases, one for external, and one for venereal, besides isolation wards. A very interesting part of its equipment is a Roentgen-ray apparatus, with a dynamo of 3-horsepower and a benzine motor. From this plant light is provided for the operating room. A special carriage is provided to carry the outfit in the field, but it is so heavy and of such wide gauge that it could be moved only over the best roads.

SANITATION.—The hospital is provided with a distilling plant for water for drinking purposes, use in the laboratory, etc., with a capacity of 2,000 liters daily. It is such a plant as is used in ships for this purpose and is operated by mechanics from the navy. This plant does not, however, furnish sufficient water, so the water of the Peiho is first cleared with alum in the proportion of grams L to 1 liter. The clear water is poured off and boiled and again settled with alum before using. Strict orders are issued to forbid the use of any but boiled water, even for cleaning the teeth, and any violation of the order is severely punished. The water sterilization is carried out more strictly, and the equipment for the purpose is more extensive than with any other service here, but the day I visited the hospitals there were 220 cases of dysentery in the wards, and 31 cases of typhoid fever. On

calling the attention of the surgeon in charge to this fact in connection with their plant, he replied that the soldiers drank unboiled water notwithstanding the orders to the contrary. There was also quite a large sterilizing plant for the sterilization of mattresses, blankets, etc., by steam. The dejecta were received in vessels containing corrosive sublimate solution and the body clothing was boiled. Several of the wards are on the second floor and a water-closet was attached to these wards of a peculiar character. The urinals had pipes leading from them to a drain beneath the ground and emptying into a stream at some distance off. For the removal of fecal matter, holes had been cut in the floor of two stories and large pipes made of sheet iron passed through them to the basement below, beneath which were large tubs on trucks arranged to run on a tramway. The feces were carried off and buried in trenches with chloride of lime. A well-equipped bacteriological laboratory and one for chemical work was in operation, and all suspected cases of typhoid fever were subjected to the Widal reaction, using a dilution of 1 to 30 instead of the 1 to 10 in general use. No cases of autumnal fever had been found, but the plasmodia of intermittent fever had been found in a number of cases. The laboratory was also equipped for water analysis, and a bacteriologist and chemist were on hand to attend to the two departments, respectively. There were in use to increase the capacity of the hospital several portable houses or wards, each with a capacity of 30 beds and quite comfortable, and costing each in Germany 1,200 marks. They seemed to be having some difficulty keeping them warm, as each house had a stove, but a flue had been built under the floor for a fire to be built in after the Chinese fashion, and in addition the walls on the outside were being covered with straw in bundles held in position with a light wooden framework, and I understand the straw was to be plastered over with mud. There were in the hospital 352 patients, of whom 220 were dysentery. Out of 31 cases of typhoid fever one had died. Total number of cases admitted to hospital 430. There had been no operations of a capital nature performed, and the operating room was not completed or equipped for use at the time.

The German medical department is most complete and excellently arranged, but was evidently gotten up with the idea of being used over fine roads such as are common in

Europe. The ambulances, which are excellent in principle, are too heavy for our service. The medicine wagons for the field hospitals are very heavy but the best arranged that could be devised. Some modification in respect to that objection would make them suitable for our service, and they would be invaluable.

FRENCH.

Each French regiment of infantry has four surgeons, one major, one captain, one first lieutenant, and one second lieutenant. When the regiment goes into action the surgeons are stationed at the "poste de secour" (temporary dressing station), the wounded are carried from the firing line to the poste de secour by the company stretcher bearers (brancardiers), four men being detailed for this duty from each company. They are combatants and do not wear the Geneva cross. This seems to be a constant feature in European armies but much decried in ours. One pouch corresponding to our hospital corps pouch is allowed to each litter squad of four men. These stretcher bearers are allowed as follows:

- 48 to a regiment of infantry.
- 16 to a battalion of chasseurs.
- 24 to six batteries of artillery.
- 4 to a company of pioneers.

These men are in a regiment, under charge of one sergeant and a corporal for each battalion. Each regiment has 12 nurses (infirmiers), one to each company; they are noncombatants and wear the Geneva cross. Each soldier and officer carries a first-aid package, consisting of charpie enveloped in gauze, one compress, one bandage, and two safety pins enveloped in material impervious to water. Each hospital corps private (infirmier) carries a haversack with dressings and a small pouch on each side of the belt in front, one of which, besides dressings, contains a pair of hemostatic forceps. To each battalion of infantry is allowed one "sac d' ambulance," resembling in appearance the square haversack carried by the French infantry, and on the top of this is strapped a roll for the aid of the asphyxiated, containing a flannel gown, a pair of hair gloves, a brush, and instructions for use are included in the case. This is peculiar to the French Army, as I know of no other possessing it. The "sac d' ambulance" contains medicines and dressings and is for use on the march and in case of accident. For the cavalry there is provided a pair of

saddlebags containing dressings, medicines, etc., and corresponding to our orderly pouch for mounted orderly, but is much more convenient to carry. Each regiment of infantry and of horse batteries has one one-horse medical wagon. These medical wagons are very different from the German, and are simply to transport the four regimental panniers and the two reserve panniers containing dressings, the six panniers containing altogether 300 dressings. Also eight liters, one cask of 10 liters and one of 30 liters, two marine lanterns, one with red globe and one with white, one small red cross flag and one national flag. The four medical panniers are numbered 1, 2, and 3. No. 1 for medicines and for daily use on the march, and is not taken to the first dressing station; No. 2 for operations; and No. 3, of which there are two, for dressings only, are for use at the dressing station (*le poste de secours*). From the dressing station the bearers carry the wounded to the "relais d' ambulance," which mark the furthest point to the rear that the brancardiers go. Here also the regimental work ends, and the service of the ambulances and hospitals begin. The word "ambulance," as used by the French, means a temporary field hospital, has its own personnel and a capacity of about 50 beds. Its personnel works no further forward than the "relais d' ambulance." From the ambulance the wounded are moved back to the "hôpital de campagne," which is a field hospital of a more permanent character, with a capacity of 100 beds, divided into two sections. The ambulances having sent the wounded to the hôpital de campagne is ready to move forward on an advance. The dressing stations (*postes de secours*) of the four regiments composing a division, empty into the ambulance of that division. In a corps there is an ambulance in rear of the cavalry component, one in rear of the first division of infantry, one in rear of the artillery component, and the ambulance in rear of the second division of infantry is divided into two sections. These empty into six "hôpitaux de campagne," one for the cavalry, one for the first division, one for the artillery, and one for each section of the second division, and one called the hospital of special distinction.

The "hôpitaux de campagne" mark the limit of the "zone of the front," and empty into the hospital of evacuation, which is the beginning of the "zone of the rear" and included in this zone are the various hospitals on the line of

communications to the base hospitals which mark the beginning of the "zone of the interior."

The regimental panniers are of wicker-work, with a lid, and are out of date. For detached service with the cavalry, there are used by the French two chests of wood, Nos. 1 and 2, and a pannier which simulates in contents regimental panniers, Nos. 1, 2, and 3; but they are inferior in every respect to our detached service chest.

TRANSPORTATION.—The French litter is similar to the German, except that it has wooden legs and when used in an ambulance is suspended by straps. It would not be desirable to imitate it. The French ambulance accommodates 10 patients sitting up or 4 recumbent. The inner poles of the two litters above and below are supported front and rear by straps attached to vertical iron bars, and on the outer side attached to a hook in the side of the ambulance. The French also have a litter on wheels similar to and for the same use as the one of the Germans.

HOSPITALS.—(1) The general hospital contained 58 patients, 10 of them being typhoid and 28 dysentery. No precautions were taken to prevent the spread of the disease, neither as regards the bedding, body clothes, bed pans, etc. The wards themselves were clean, but there was considerable refuse material about the building. The beds were of iron and comfortable. There was no laboratory equipment. Its capacity was 100 beds. There were 20 nurses on duty and 2 surgeons. (2) The hôpital auxiliaire contained 140 patients, of which 12 were typhoids, 60 dysentery, and 40 diarrhea. The hospital was provided with a Roentgen-ray apparatus, and microscope for blood examinations. Most of the beds were narrow litters resting on supports at each end. There was a very good, well-equipped operating room.

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ITALIANS.

The Italians formed no part of the relief column that marched to Peking, and have a very small force in China, two battalions, and so no opportunity has presented itself to observe their equipment. They have a small hospital in Tientsin, and there were 25 patients, 5 cases of dysentery and 20 of malaria. Some of the patients were on folding cots and several only on litters resting on supports. * * * It

was well supplied with surgical instruments and preparations were in progress to perform a Bassini operation, for the radical cure of hernia, the next morning at 9 o'clock. * * *

The Italian first-aid package is less than one-half the size of ours, and is composed of a brown, waterproof material with wax paper enveloping two pink gauze compresses and a pink roller bandage and two ordinary pins in waxed paper. Antiseptic agent used is corrosive sublimate solution. Each regiment has seven medical officers; one with the rank of captain, six with the rank of first lieutenant. Six stretchers and 24 stretcher bearers are allowed to each regiment, 2 to a company, also two ambulances to a regiment. The sanitary company is 70 strong, and to a division is allowed two field hospitals of 200 beds each, divisible into two sections. With two divisions, however, there are five field hospitals. The Italian litter is quite a poor one. I witnessed the operation, Bassini's, for the radical cure of hernia at the Italian hospital in Tientsin to-day, November 6, and it was most skilfully performed. Silk sutures were used throughout, for both buried and superficial sutures, and the skin was united by the mattress suture.

RUSSIAN.

The Russian army had left Peking before an opportunity presented itself to investigate their medical equipment, and only a comparatively small party of it remained at Tientsin, and I was unable to obtain their losses during the campaign, partly on account of the difficulty of being understood, and principally because I could not find anyone among those who remained who seemed to know. Each regiment of infantry has four battalions, with one surgeon to each battalion, and a regimental surgeon, making five in all. Their position in battle is at the temporary dressing station. Each company is allowed 8 stretcher bearers and 4 stretchers, making 128 bearers to a regiment, and 64 stretchers, a Russian regiment of infantry being made up of sixteen companies. The wounded are sent from the first-aid station to the brigade hospital and then to the division hospital, which has a capacity of 200 men and 10 officers. Their wounded were carried down the river in junks to the hospital at Taku, and from there to Port Arthur and Vladivostok.

TRANSPORTATION.—The Russian litter consists of two long litter poles slipped through a fold in the canvas, and passing through rings on the iron legs front and rear and tied to the cross bars front and rear. It is heavy and much inferior to our litter. The wounded were transported in the two-wheel cart without springs. It was necessary for the patient to be recumbent; the tailboard was fixed in a horizontal position so as to make the bed of the cart long enough. The same kind of carts was used to transport medicines, but those used for this purpose were provided with rubber springs or buffers to prevent the medicine bottles from being broken by the jolting of the carts. * * * Their medical equipment, on this campaign at least, was of the very roughest character and very little of it. The Russian soldier certainly does not seem to be accustomed to any refinements in medical equipments in the field, nor to expect them.

HOSPITALS.—There were four hospitals in the east arsenal, one of them being a movable field hospital, and containing 196 patients, suffering principally from dysentery and typhoid fever. I was informed there were 200 cases of typhoid in the east arsenal, and there were 127 in the wards visited by me.

Both hospitals were similarly equipped, but the movable hospital had carts for transportation purposes, the other had not. The beds consisted of iron legs with a connecting cross bar for head and foot pieces, and with rough boards placed across them. Each patient lay on a bed sack filled with straw and covered with a sheet. Tea was used instead of boiled water. Soup seems to be the other principal article of diet to both sick and well. The bread used is a coarse brown bread.

There was no laboratory equipment, nor a microscope in these hospitals. I was informed that the total number of the sick among the Russian troops was 900. I could not obtain a first-aid package for examination, and was informed that not all the Russian troops had yet been supplied with them.

The Russians on their campaign were certainly very meagerly supplied and had been helped out to some extent by the Red Cross Society.

Respectfully submitted,

W. B. BANISTER,
Major and Surgeon, U. S. V.

OBSERVATIONS ON EQUIPMENTS, SUPPLIES, ETC., OF
THE FOREIGN DETACHMENTS OF THE EXPEDI-
TIONARY ARMY IN NORTH CHINA.

BY MAJ. S. M. MILLS, SIXTH UNITED STATES ARTILLERY.

HEADQUARTERS CHINA RELIEF EXPEDITION,
OFFICE OF THE CHIEF OF ORDNANCE,
TIENTSIN, CHINA, *September 12, 1900.*

ASSISTANT ADJUTANT GENERAL,
China Relief Expedition, Peking, China.

SIR: I have the honor to submit the following observations in connection with the equipment, supplies, etc., of the foreign detachments of troops that accompanied the expeditionary army in the forced march to Peking, beginning August 4, 1900.

I was attached to the staff of the major general commanding the forces in China, pursuant to telegraphic instructions to Major General Chaffee from the War Department dated July 17, 1900, and reported for duty at Nagasaki.

Upon arrival at Tientsin, and as the column was about to take up the march, I was instructed by the major general commanding to report to Gen. Sir Alfred Gaselee, commanding the British forces, for duty and observation, and as a medium of communication between the two generals during actual combats. I remained with the British staff during the march to Yangtsun and in the engagements at Peitsang and Yangtsun; after that and until the allied troops reached Peking, as there was no expectation of serious resistance, I was on duty with the staff of the major general commanding.

During the forced and hurried march to Peking there was little opportunity to observe much in detail the foreign detachments, and afterwards in my duties, first as acting judge advocate of the American forces and later as chief ordnance officer at Tientsin, my time was occupied, so that I could make only cursory investigation as circumstances offered. Such as I have been able to gather under these circumstances is submitted in this report for such disposition as the commanding general may choose to make of it.

The British force was composed entirely of troops from India, some of which had arrived at Tientsin but a few days before the arrival of our own Ninth Infantry, and others

about the time of the arrival of the Fourteenth Infantry and Reilly's battery of artillery.

I was impressed at once with the complete organization and fitness of this force as it was finally prepared for the field in the few days allotted it. It consisted of a part of an expeditionary force mobilized in India, completed in all details before leaving the point of embarkation, and preceded by officers of intelligence and transport department, to make provisions for the arriving troops.

Maj. Gen. Sir Alfred Gaselee, its commanding general, and quartermaster general of India, was detached for this duty, and arrived with his trained and efficient staff, selected from the commands in India and not from the troops composing his own force, which would thereby have been weakened. His staff consisted of some seventeen officers, not counting transport officers and those on duty at the bases and on line of communication. These staff officers were all line officers who had been trained in their special duties (it must be remembered that there are no permanent staff officers in the Indian army), and for the time being some of them had increased rank. With the exception of the chief of staff and deputy adjutant general, Brig. Gen. E. G. Barrow, C. B., I. S. C., they were all young men under 40 years of age; General Barrow was a man perhaps 50, and the general commanding a man perhaps 57 years old. This staff performed the duties of deputy adjutant general, deputy quartermaster general, and assistants to these—intelligence officers, engineers, army signaling, ordnance, provost marshal, field paymaster, medical, commissary and transport, line of communication and base staff, etc.

I mention the foregoing facts somewhat in detail to contrast for a moment, not in criticism, for I understand all the difficulties we labor under for want of proper legislation, organization, and preparedness, but to accentuate the fact that, notwithstanding all this lack of staff assistance on this occasion and in many other campaigns in our history we were able to overcome and carry to successful issue what seemed, for lack of preparation, very doubtful.

In this remarkable short campaign the credit is entirely due to the splendid capacity, energy, and untiring endurance of the major general commanding, who, single-handed and practically alone so far as trained organized staff assistance

was concerned (though the staff worked arduously) mobilizing himself and one aid-de-camp before leaving his country; picking up officers here and there en route for staff duty; supplying himself with a field desk and a few picks and shovels at San Francisco; finally arriving upon the scene of operations to find a few marines and the Ninth Infantry, the latter sadly decimated in numbers by recent operations, but fortunately fully equipped as a regiment (thanks to the judgment of the military authorities of the Philippines) with transportation, supplies, medical and other stores; and with this allowance, and under these circumstances, organized the American forces and doing fully his share of the fighting, carried to successful issue this historical campaign.

BRITISH FIELD FORCE.

Seventh Bengal Infantry	500
First Sikh Infantry	500
Punjab Infantry	300
Royal Welsh Fusiliers	300
Royal Marines	300
Hongkong Regiment	100
First Chinese Infantry	100
Total infantry	2,100
First Bengal Lancers (cavalry)	400
Royal Navy Artillery, 4 naval guns	150
Hongkong Artillery, 2 naval guns and 4 Maxims ..	120
No. 12 field battery, 6 field guns	150
Total combatant force	2,920

Two additional regiments joined after arrival at Peking, and an entire division has since then joined; these are not included in these figures.

The regimental organizations of the British and native Indian troops, I will assume, are well known, as they have frequently been reported upon.

I, myself, as a military representative in India some years ago, reported much in detail on the subject of the native troops. I will note one change particularly, among others, which at that time was unfavorably commented upon, viz, the lack of British officers for duty with the native regiments; this has been changed and the number now increased to ten officers.

The question of transportation in the field is the first important matter that presents itself, and on this march all varieties were used.

The allied troops primarily depended upon the junks which were poled and dragged up the Peiho. This necessarily confined the march to the roads near the river, or so that they could reach the junks every few days. In addition to this, transportation for the daily needs of the troops had to be supplied. With the United States troops this was accomplished by the use of coolie bearers, 20 to a company, and with the usual four-mule escort wagons, the latter carrying rations only. The British used small pack mules, the other nations one-horse carts. The Russians used a pattern much larger than that used by the Japanese, as their horses were larger.

Field transportation (pack mules) of the British is in the charge of the Indian coolie corps, an organization comprising 2 British officers, the senior with the rank of major, 2 British noncommissioned officers, and various native officers, sirdars, etc., in charge of subdivisions, and 1,000 coolies (natives) to each corps. Besides this corps a certain number of pack mules with their native drivers is told off to each unit or organization, about 20 linked together in threes, for each separate regiment, and to other separate units a number depending upon their strength. For the officers, one mule to each two throughout the entire command. These impedimenta of the British army in India, which have for so many years excited criticism of military experts from an European or American standpoint, proved most efficient in the present campaign, and altogether the best on account of the bad and difficult roads. A great many mules for the British and carts for the Japanese and Russians were required on this march, as they carried all the equipments of the soldier except his rifle, ammunition, and water-bottle or canteen, and one day's ration, whereas the American soldier had to carry four days' rations on the first march, blanket roll, meat can, and tin cup, which over-weighted him in comparison with other troops. If we had met with the rainy weather which was confidently predicted for August, or if for any reason our heavily laden wagons could not have kept up with the column on account of the condition of the roads, it would have been a much more serious problem. As it happily turned out, except on one occasion, the wagons were always with us at night, and the transportation, though very limited, was on the whole satisfactory.

The question of water supply for drinking purposes on the march was a serious matter. Our men had only the canteen,

which it was difficult, if not impossible, to fill from buckets at the wells, and much inconvenience was caused during the excessive heat of the day for the want of water. The British have a canteen about the size of our own, which is carried on the person; besides, they have two mules for each regiment, which carry 25 or 30 gallons in sheep skins suspended across the backs of the animals, and in addition "bhists" or water carriers, who carry in skins a smaller quantity on their backs for distributing to the men on the march and for filling their canteens. These accompany the troops on the march on all occasions.

In addition to supplying the men with water, this system enables the selection of the best water in quantity to last until the next best supply is reached, and the troops are not forced to drink any and all kinds as they find them.

For garrison purposes the British have numberless small, low, two-wheeled vehicles upon which is placed a barrel some 4 feet long and about 18 inches in diameter, covered with a woolen blanket; the barrel has a faucet in one end. This barrel is wheeled and drawn by two men and is used in carrying water from distant wells to troops in camp.

The Russians, in addition to their canteens or water bottles, had a little copper or brass bucket with a hoop handle, which could be readily lowered into wells with rope attached. They also had one-horse carts following the column with distilling arrangements, large circular caldrons in which fires were kept nearly all the time on the march, preparing water for drinking and other purposes.

The commanding general on one occasion called my attention to an ingenious and convenient arrangement he had observed in the Japanese column for carrying picks, shovels, etc., on the backs of Japanese ponies. I did not have an opportunity of seeing this myself, but I observed the matter especially in the British contingent. The pioneer corps in this service carries all the tools required for its work, including mining operations, on the pack saddles of three small mules for each company.

On one mule are carried picks, shovels, hoes, and spare helves; all helves are short and of a uniform length. There is provided a strong wooden frame in which the implements are placed with the helve pointing downward, when the frame is on the mule's back. The helves are put through spaces

between the two upper parallel strips to keep them in place, and the helms rest on the lower cross-piece to which they are lashed with small rope and secured, and kept free from the animal's body. These two filled frames have on either vertical strip a strong iron ring which, when placed on the mule, is hooked on to a correspondingly strong hook on the broad and well-padded saddle, one frame on either side. The tamping bars, crowbars, and other long-handle implements and materials are placed in light frames, and are carried similarly attached to the pack saddle by the mule's side and parallel with his body.

The weight carried by each mule is not over 280 pounds; in addition each pioneer soldier carries a colter or large hoe on his back, in a fair leather case; the handle of the hoe, which is 2 feet long, is detachable, and is carried in a fair leather socket. The leather of these cases is of the very best quality. These arrangements are of the most simple kind; the engineer officer in command informed me that they for years experimented with many designs suggested, but had more recently returned to this arrangement again. As all their transportation in India is by pack animals, I dare say they have evolved a good system.

The question of the disposition of the wounded after proper attention at the first dressing stations was happily solved by the arrival of the junks during the night after the engagements, and the wounded were immediately sent to the base hospital at Tientsin. This was the plan adopted by all nations. But for the convenience of the shelter afforded by the junks, and the open line of communication with Tientsin, the difficulty of providing shelter for and transportation of the wounded on the march, as we had no tents and the wounded could not well be left behind, would have been immensely increased.

SUPPLY AND AMMUNITION.

The ammunition is carried upon the person in two small boxes attached on either side to the waist belt; the amount carried is relatively small to that carried by our own troops. This is the method adopted by all nations, including the Germans and Italians, which I have observed since the close of the campaign.

The weight carried (100 rounds) by the American troops in the woven belt about the waist is burdensome in the extreme

during a long, hot march, so much so that most of the men are unable to bear this weight at the waist and have to lower the belt to the hips. I observed no method of supplying troops with ammunition while in action except by the British, and with them it was done by pack mules specially told off for the purpose.

ARTILLERY.

There is not much to be said on this subject, as the nations represented, with the exception of the British and ourselves, had none of their better or modern artillery on the forced march. They will, undoubtedly, with the troops now arriving and to arrive, be supplied with their best and most efficient weapons, particularly the Germans, who were not represented at all in the relief column.

The Japanese had several batteries of small caliber, but of the old-time Krupp patterns; one of the batteries was of brass. The French had one 8-centimeter battery, which was not in action, I believe, until after our arrival in Peking. The Russians had two batteries of small caliber, and one Maxim battery on wheels with shields, but they were of old, obsolete types, brought from the east coast of Siberia. The British had, in addition to the only modern field guns, which I will describe somewhat in detail, a Maxim battery packed on mules. Both of these Maxim batteries were of rifle caliber. They also had two or three naval guns, 3-inch caliber, of high power, which were taken to Tungchow on the junks, but did not reach us until after the fall of Peking.

The following information in regard to the British 15-pounder field guns, which was the only what might be called modern gun accompanying the expedition, is submitted; some of the points noted, I believe, will be new to artillery officers, though the Ordnance Department may be familiar with them.

DESCRIPTION OF 15-POUNDER B. L. FIELD GUN (BRITISH).

Material, steel.

Total length, 92.35 inches.

Weight, 7 hundredweight.

Bore:

Diameter, 3 inches.

Length in calibers, 28 calibers or 84 inches.

Capacity, including chamber and grooves, 647 cubic inches.

Chamber:

Diameter, 3.625 inches.

Length, 11 inches.

Capacity, 117 cubic inches.

Rifling:

System, Polygroove hook section.

Twist, increasing from one turn in 120 calibers at breech to one turn in 28 calibers at 35.8 inches from muzzle; remainder uniform, one in 28 calibers.

Length, 71.6 inches.

Number of grooves, 12.

Depth of grooves, 0.04 inch.

Width of grooves, 0.06 inch.

Means of rotation consist of copper driving bands.

The vent is the radial T removable, 1 inch in front of obturator.

Breech-closing arrangement is the interrupted screw, with the De Bange obturator.

SIGHTS.—The gun is side-sighted, provided with two rows of sights. The tangent sights are of steel. It is also provided with Scott's telescopic sight, and with rifles and the necessary apparatus for use in imparting instructions in laying the gun.

A memorandum of examination is issued and kept with each gun and a record preserved of the number of rounds fired, four blank cartridges being counted as equal to one round of projectile. All guns are required to be examined after firing 150 rounds.

BRAKES.—The brake consists of two brake shoes, two steel-wire ropes, two sets of suspending chains, and two drag washers with Q link. The brake shoes (which are in one steel forging with the sides splayed out to the front) are attached to the sides of the carriage near the trail eye, by the wire ropes; the inner sides are connected by the suspending chains to the axletree, and when in use the outer sides are connected with the drag washer. The drag washer has a loop for use with the drag rope, and on the opposite a Q link or sliding hinged hook, similar to that used for traces.

In action, the shoes are placed on the ground, behind and against the wheels, and the outer suspending chains are connected to the drag washers. On recoil the wheels of the carriage run on the brake shoes, the steel-wire ropes being of sufficient length to insure the wheels riding on the shoes during recoil. On running up the gun the wheels leave the shoes, which remain in position for the next recoil. When not in use the shoes and outer chains are hung on hooks fixed

to the axletree for the purpose, and the wire rope on the hooks on either side of the trail.

CARRIAGE.—The carriage consists of two side brackets, a trail eye, a top carriage, with hydraulic buffer and gun cradle, double-screw elevating gear, shoe brakes, etc.

The side brackets are flanged steel, connected with transom stays and a trail eye. The trail eye is of wrought iron, the eye being fitted with a movable piece of hard steel. The top carriage consists of two steel guides connected by transom stays and a tubular stay; it is pivoted at the front to the axletree, and supported at the rear by the elevating screw. The gun is a close fit in the gun cradle, to which it is secured by cap-squares fitting over the trunnions. The breech of the gun is connected with a rear sliding bracket, which, together with the cradle, slides in guides formed on the upper part of the top carriage. The top carriage is fitted with a hydraulic buffer to admit of the gun recoiling axially and so lessen the shock, due to firing, on the main carriage. The hydraulic buffer is connected to the top carriage by trunnions, and the piston rod, which passes through both glands of the hydraulic buffer, is attached to the rear sliding bracket. The gun recoils about 4 inches on the top carriage, during which the motion is gradually imparted to the whole structure, thus lessening the strain upon it due to firing. The gun is returned to the firing position by volute springs on the front part of the piston rod; the hydraulic buffer consists of a cylinder, a piston with rod, and front and rear glands. The bore of the cylinder is slightly tapered so that the space around the piston, for the flow of the liquid, varies during recoil. By this means an approximately constant pressure is maintained in the buffer throughout its stroke. The front gland is made to fit into a recess in the piston so as to form a small hydraulic cushion which prevents injury to the buffer by concussion caused by the return of the gun.

Weights (approximate), packed with personal equipment and detachment, are as follows:

	Cwt.	Qr.	Lbs.
Carriage and limber with gun	41	2	0
Wagon carriage and limber with gun.....	42	3	16

The battery is provided with pole draft, and all carriages are painted khaki color. Twenty-four carbines are issued to each battery for guard purposes.

The ammunition, range, etc., are as follows:

Ammunition, shrapnel, shell and case shot.
 Weight of shrapnel shell, 14 pounds 1 ounce.
 Weight of charge, 15½ ounces of cordite, size 5.
 Weight of projectile, 15 pounds.
 Fuzes, time and percussion.
 Extreme range, 5,500 yards, 14° 39' elevation.
 Remaining velocity at this range, 668 f. s.
 Muzzle velocity, 1,569 f. s., jump nil.

UNIFORMS, HEAD-GEAR, ETC.

The Russian troops in the field wore white blouses, dark-blue trousers, and black leather boots into which the legs of the trousers were tucked. The officers wore close-fitting white frock coats, dark-blue trousers, and dark leather boots, legs of trousers tucked in boots. The officers and men wore a bell-shaped white forage cap. The Japanese officers and men wore tight-fitting white jackets, white trousers, and puttie leggings, black leather shoes, and white forage caps, chasseur-shaped. They and the Russians were very conspicuous as far as the eye could see. The French wore loose-fitting blouses and trousers of blue drilling, trousers tucked in boots, and a white helmet, not unlike our own helmet in shape, covered with blue drilling, same color and quality as material of clothes. The Germans, those whom I have seen since the campaign, wear a frock coat, rather short skirt, close fitting, buttoned in front, single row of brass buttons, and trousers tucked into boots, both coat and trousers of khaki, darker in color than our own, with a tinge of green, and for head-gear a plain, coarse, low straw hat, with the right side of the brim turned up and secured to the side with a small rosette. The British officers and men wear khaki blouse and trousers, blouse conforming to the figure, puttie leggings for the men and good heavy black shoes; the officers wear a new pattern of stiff leather leggings called the "puttie" legging, and fair leather shoes; the officers and men wear a rather high pith waterproof helmet covered with khaki, same color as clothes, projecting well down over the neck behind, with a light, thin, leather chin strap. This dress for the British is absolutely uniform, both for officers and men, at all times in the field without the slightest departure. I do not hesitate to state that the British were the best and most suitably dressed of any nation, and better equipped than the troops of any nation in the field.

* * * * *

The helmet such as the British use (or some similar pattern, projecting over the back of the neck, with air space between the soft band encircling the head and the body of the waterproof, light pith helmet of khaki color), is the most desirable head-gear for the broiling sun of the Tropics, or in other hot climates.

I must commend, in closing this subject, the excellent quality and in every way satisfactory russet or fair leather shoe provided the American troops.

I am not called upon or expected to make any report upon the military operations of the campaign, but I hope it will not be amiss if I record my observations of that part of the American force, the Fourteenth Infantry, which took part in the engagement at Yangtsun with the British troops, and not at all times under the eye of the major general commanding the American force or any member of his staff other than myself. The Fourteenth Infantry was leading the American column on the march from Peitsang on the morning of the 6th of August. Both the American and British columns halted (they had been marching on parallel lines during the morning, and were the leading allied troops). When they reached a point about 3,000 yards from the line of several villages and intrenchments called Yangtsun, the British and American generals with their respective staffs, and later the Russian general with his staff, assembled on a high sand mound in the vicinity and surveyed and discussed the outlook. After allowing the troops to rest for a half or three-quarters of an hour, it was decided between the commanding generals of the British and American forces that the Americans would form on the right of the British. The head of the American column was already on the right, and the Russians, when they came up, would form on the left of the British. The entire force of both commands at this time was on the left or west side of the railroad embankment and between it and the river; the Japanese were on the opposite side of the river, the Russians were following in the rear and on the same side of the river and railroad embankment as the English and Americans. Before separating and previous to the advance, General Chaffee turned to the British general and said: "My right flank is in the air and unprotected; I need some cavalry to cover my right flank." As soon as General Chaffee had left the mound General Gaselee turned to me and said: "I wish

you would please place the First Bengal Lancers," which were just then coming up from the rear, "on the American right to protect that flank." I did this, giving to Colonel Gartside-Tipping, commanding the lancers, the instructions I had received.

The American force, excepting the Fourteenth Infantry, then crossed the railroad embankment, deployed, and was the first to draw the enemy's fire. I remained with the British throughout the engagement, except when absent carrying messages to the American commander. Without reconnoissance or further examination, the first Sikh regiment (British) moved forward about 300 yards and deployed in five lines as they slowly advanced; the first line at intervals of 10 or 12 yards, the second at intervals of 6 or 7 yards, and following at 150 or 200 yards, and so on throughout, the last line at intervals of 2 or 3 yards. This deployment was made with the excessive extended intervals in anticipation of meeting artillery fire.

The British field battery moved forward and took position on the left and in advance of the British left, about 500 yards. A space was left between the right flank of the British infantry (the Sikh regiment) and the railroad embankment for the deployment of the Fourteenth Infantry; the embankment at this point was about 10 or 12 feet high. This regiment was deployed in the usual three lines at appropriate distances, the third line, consisting of two companies, constituting the reserve. The first line of this deployment was slightly in the rear of and overlapping the first line of the Sikhs. The head of the Russian column was gradually approaching this line on the left of the British. The advance was made about 11 o'clock, or perhaps a few minutes earlier. The Russian infantry did not deploy or form any part of the attack at this time, probably because the advance was made before they had time to get into line. Later a Russian battery took position on the left of the British battery and fired a few shots, I am told, after the village was captured.

The advance was rapidly continued and a village captured by a charge of the Sikhs and Fourteenth Infantry, the leading lines of the two regiments with their respective colonels and other officers entering the village neck and neck. There were no intrenchments in front of this village.

A glance at the map will show that the ground between the river and the railroad embankment contracts very rapidly as

you approach the village where the railroad crosses the river by an iron bridge. The railroad embankment also becomes very high during the approach, and at or near the village is 30 or 40 feet high. This limited space becoming narrower and narrower, and it now being impracticable to extend the line to the right or left without dividing the command on account of obstacles (the railroad embankment and the river), men were necessarily huddled together, which undoubtedly caused the many casualties which are reported. Later, at 12.30 p. m., the Russians arrived at the railroad bridge and opened fire from this point with artillery, sending out in advance Cossacks and infantry in the attack of villages off to the right on the same side of the river which the American troops under General Chaffee had been subduing during the earlier part of the day.

The Japanese, being on the opposite side of the river, did not have an opportunity of participating in the direct attack. The Fourteenth Infantry and the British took no part in this latter bombardment of the village by the Russians. The allied troops bivouacked at this place for the night and the next day.

Very respectfully,

SAMUEL M. MILLS,
Major, Sixth Artillery,

Attached to staff of Major General Commanding in China.

REPORT ON THE SIEGE OF PEKIN.

BY FIRST LIEUT. J. R. LINDSEY, TENTH CAVALRY, A. D. C.

PEKIN, CHINA, *November, 1900.*

MAJ. GEN. ADNA R. CHAFFEE,

Commanding China Relief Expedition, Peking, China.

SIR: In obedience to your personal instructions to ascertain the probable origin of the "Boxers," give a brief general outline of their recent movements, and report upon military features connected with the siege of the legations at Peking, I have the honor to submit the following:

THE BOXERS.

So much that is a mere recital of pet theories by those who think they know, or an indulgence of a fertile imagination

by those who do not know, has been said and written about the Boxers that it has been difficult to ascertain much that may be termed real facts. In general terms the Boxer movement may be thus described:

China has for all time been honeycombed with societies of all kinds for all purposes; even thieves, beggars, etc., are thoroughly organized. The "I Ho Ch'uan" Society, or "Fist of the Patriotic Union," improperly translated as "Big Sword," "Big Knife," or "Boxers," has been in existence for many years, but under the latter names within the last year or two only. The recent movement originated in the southwest corner of the province of Shantung under the rule of Hu Hsien, as prefect of the department, and Li Ping Hing, as provincial governor. As a means of checking the comparatively recent foreign aggressions resulting in the seizure of certain parts by the Russians, British, and Germans, an imperial edict was issued, after the coup d'état in 1898, directing every provincial governor to raise in his province a volunteer militia. In a very strong antiforeign province, with a notorious antiforeign governor (encouraged by even a more antiforeign prefect), it was an easy step to incorporate in the volunteer militia an antiforeign society, which on account of its already existing organization dominated over the new and imperfectly organized militia, and yet received through the militia official sanction of its existence; thus from almost its very incipiency it might be said that the Boxers received a kind of encouragement from the Government. On account of the strong antiforeign feeling in the Shantung province, due partly to the introduction of numerous foreign inventions which threw many Chinese out of work, partly to the recent seizure of Kai Chau by the Germans, but principally to a positive objection to having their religion and mode of worship changed by the foreign missionaries, there seems to be little doubt that the so-called Boxers, under the direction of their early patron, Hu Hsien, were from the outset bent on striking a blow against foreign aggression. Their first step was against the Chinese Christian converts (or "secondary devils"), whom they particularly despised for accepting a religion so despicable; next, against the missionaries, who were the cause of their religious troubles; next, against modern improvements, particularly railroads, which monopolized all carrying trade; then, against those Chinese who had

dealings with foreigners; finally, against all foreigners, especially the foreign ministers at Peking.

The grotesque exercises in which the Boxers were drilled in bands were performed with the idea that thereby they would be rendered invulnerable; thus was the natural fear of the Chinese for the foreigners overcome. Later on they would perform these exercises under rifle fire till its effect, temporarily, at least, relieved them of their delusion.

The Germans' demand for the removal of Li Ping Hing was acceded to, but Hu Hsien was appointed governor instead. The movement spread over the province even more rapidly than ever, and the numerous outrages committed caused the attention of the ministers at Peking to be drawn to the rapid growth and wide extent of the movement, and, in accordance with treaty rights, they demanded Hu Hsien's removal, which was reluctantly made. Hu Hsien went from Shantung to Peking, where (through a friend who was a tutor of the emperor) he became the adviser of the queen dowager; certainly he never lost her favor, as he was afterwards appointed governor of Shansi, in which province the imperial household sought refuge when Peking was taken by the foreign forces. Yuan Shih K'ai, an able official, was then appointed over Shantung, and he set about vigorously to suppress the Boxer movement; in fact, did practically rout them out of the province. Because it was a seat of "foreign devils" and their inventions, and perhaps because Li Ping Hing, the deposed governor, had settled between it and Shantung, the province of Chili, in which is situated Peking, became the hotbed of the Boxers. The whole region between Peking and Paotingfu was alive with them and Peking itself threatened. The foreign ministers, appreciating how little the imperial government had done to suppress the movement and fearing that high officials were encouraging it, about May 28 sent for more guards. The railroad had not yet been interfered with, and on the afternoon of May 31 the guards, 350 strong, among which were fifty marines from the *Newark* and the *Oregon*, arrived at Machia Fu, the depot of Peking, and marched unmolested to their respective legations. At this time there were in and about Peking, associating and friendly with the Boxers, about 15,000 imperial troops under command of General Tung Fu Hsiang, notorious for his hatred of foreigners. No opposition whatever was offered to the entrance of the

guards, but steps were soon taken to prevent the arrival of any more, the railroad and telegraph lines being completely destroyed.

The following facts seem to indicate clearly the complicity of the imperial government with the Boxers in the attack on legationers:

That the attack on the legationers was made by imperial troops; the Chinese barricades were everywhere mounted with flags bearing the name and designation of regular Chinese officers and their commands, and captured men and arms belonged to the Chinese army;

That decrees were issued organizing, arming, provisioning, and paying the Boxers; appointing Prince Chuang and Kang I to their command; urging members of imperial family to be no less patriotic than the Boxers; and mentioning princes and ministers in command of the Boxers;

That Viceroy Yu Lu ordered provisions and fire arms distributed among the Boxers;

That whenever the Chinese Government desired to communicate with the ministers, the firing would cease for the time;

Thus, there seems to be no doubt of the Government being involved; but it may be added in its defense that, being very unpopular with the Chinese people, lest it encouraged and abetted the movement against the foreigners, it might have suffered an overthrow from its own people.

The last train from Peking left at 3 p. m., June 4. The chancellor of the Japanese legation was murdered and his body horribly mutilated on June 11.

The missionaries in the neighborhood of Peking gathered at their missions; but all the missions, except the Peitang (French), the Methodist, and the Roman Catholic, were burned on the 13th of June. The Roman Catholic mission and the buildings at the west end of Legation street went on the 14th; and the Chinese city, that part of Peking south of the Tartar wall, on the 16th, the fire originating at a store in which foreign goods were sold. The Methodist mission, being the nearest to the legation quarter, was the refuge of the missionaries till compelled to enter the compound of the British legation on the 20th. It was on this date the German minister was murdered and his secretary wounded while on their way to the Tsung-li-Yamen.

LEGATION

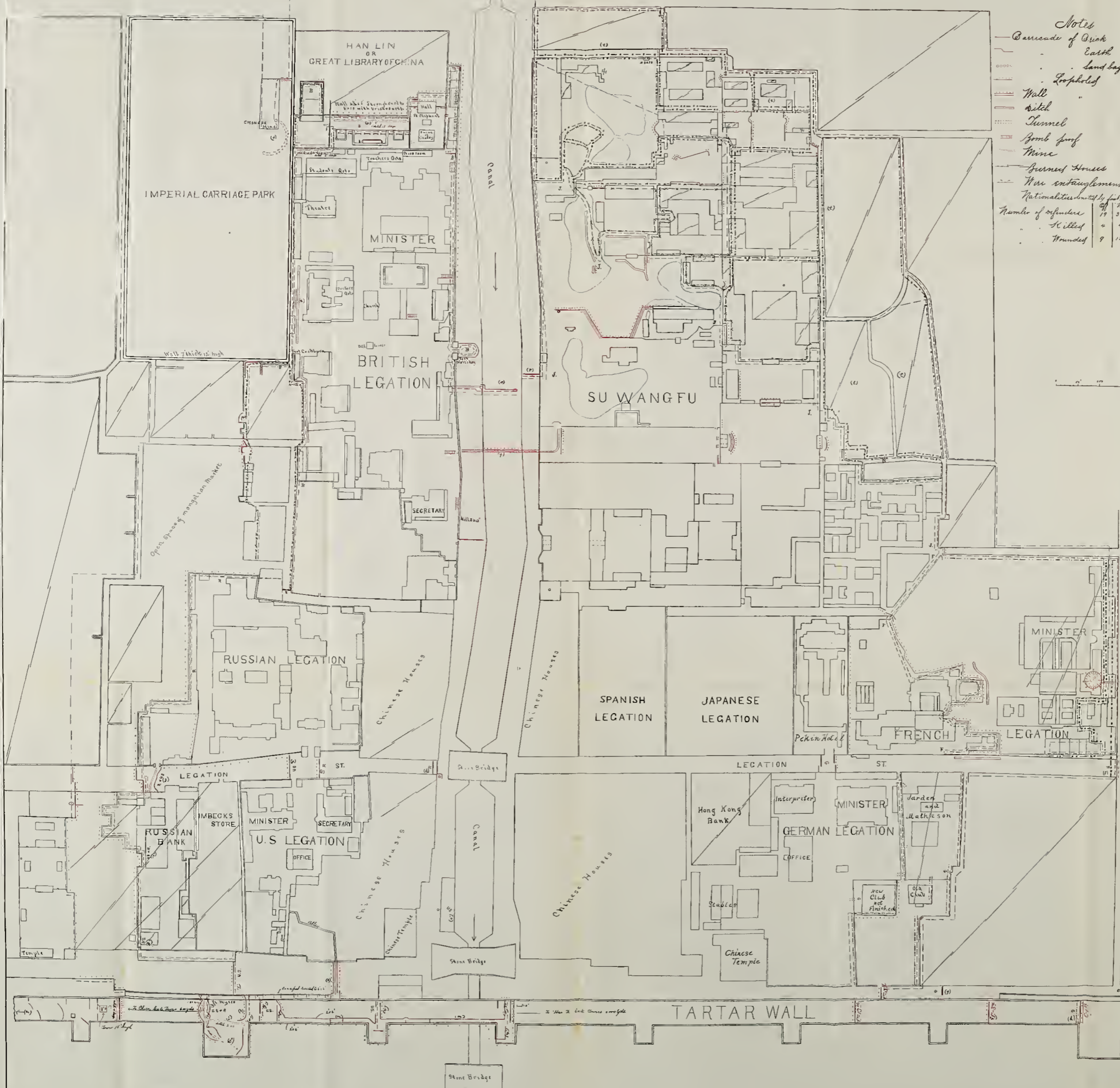
VIENNA

There are three copies of this
report which are retained for
the use of the Legation. The
original is in the possession of
the Legation. The other two
copies are in the possession of
the Legation. The original is
in the possession of the Legation.

The Legation is in the possession
of the Legation. The original is
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The other two copies are in the
possession of the Legation.

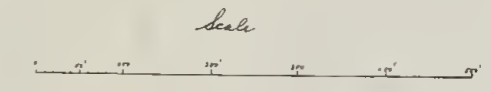
DEFENCE OF FOREIGN LEGATIONS, PEKING, CHINA.

JUNE 20th TO AUG 14th 1900.



Notes

Carraide of Brick	-----	Lines of defence
Earth	-----	June 20 th 1900
Land bags	-----	22 th
Loopholes	-----	23 th
Wall	-----	26 th
Ditch	-----	29 th
Tunnel	-----	July 1 st
Bomb proof	-----	2 nd
Mine	-----	3 rd
Burned Houses	-----	6 th
Wire entanglement	-----	9 th
Nationalities killed by July 15 th	-----	10 th
Number of defenders	off 19, 355, 300	12 th
Killed	4, 49, 12	15 th
Wounded	9, 126, 23	18 th
		Aug. 14 th
		Chinese final line



Maps and Notes referring to their respective defence were obtained from British Chief Engineer Expeditionary Force, Japanese - Commanding Officer during Siege, French - Commanding Officer during Siege, German - Secretary of the Legation.

Major General Adna R. Chaffee U.S.A. Commanding China Relief Expedition. Respectfully submitted. H.B. Swenson, 1st Lt. Chief Engineer Officer.

THE SIEGE.

Sir Claude McDonald, minister from England, was selected on account of his military experience, extending over twenty-five years, to command and direct the defense. He selected Mr. H. G. Squiers, first secretary of the United States legation, as his chief of staff, and the necessary committees for management of internal domestic affairs were appointed and organized.

The number of armed soldiers were:

Nation.	Officers.	Men.
American	3	53
Austrian	5	30
British	3	79
French	3	45
German	1	50
Japanese	1	24
Russian	2	79
Italian	1	28

In addition to the above-mentioned there were about 200 foreign civilians armed with guns of all kinds, making in all a fighting strength of about 600. The Americans armed about 50 civilians with their extra Martinis and had one Colt gun, the English one Nordenfelt, the Italians one rapid-fire (1-inch), the Austrians one rapid-fire gun, and the Russians several large bore rifles, something like "jingals," which made a very loud noise and which the Chinese greatly feared. An old gun found in an old foundry was loaded with pieces of old iron and brick, and used once or twice to frighten temporarily the Chinese. The Americans had about 300 rounds of ammunition per man; the Russians about 65 per man, but reloaded quite a number; and the Germans 40. The number of rounds possessed by other nations has not yet been learned. The total number of men, women, and children was about 3,500. The Christian converts under the missionaries rendered valuable service in all construction work; Catholics worked principally in Japanese legation; the Protestants, on the wall.

It has been impossible to ascertain anything definite regarding the number of Chinese engaged in the siege, but from reports would think 2,000 a conservative estimate. It is known that they had four pieces of artillery on the imperial wall north of British legation, at least two on the Chienmen,

one on the Hatamen, and one at foot of ramp near the Hatamen. Some were 3-inch modern guns, firing shells made in 1896, others were old-fashioned, firing solid shot. The effect of their artillery fire acted principally on the morale and against the barricades.

The general plan of defense was to hold a line including all the legations and that part of the Tartar wall from the ramp immediately south of United States legation to the canal or water gate, and, if burned or forced back from outer legations and the wall, to make a final stand in the British compound. The importance of securing and holding the wall referred to was early recognized; first, because in the hands of the Chinese they would have a position from which the Chinese could destroy almost every legation; and, second, by holding the water gate an easy entrance could be effected for the relief column. After the arrival of the marines on May 31, in addition to the guard at the legation gates, outposts were established by the Americans on Legation street about 300 yards west of gate and on street in rear of the legation; by the Italians, just east of their legation on the street (*b*); and by the British, north of their legation on bridge across canal (*b*). This constituted the very first step in the defenses. Soon it became necessary to make barricades across the streets in order to keep out the swarms of suspicious people. These barricades were first built of old carts, wheels, and rubbish of all kinds, but were afterwards made good and strong of dirt and brick. By the 13th of June barricades had been built by the Russians across Legation street (*d*); by the British, at its outpost on canal bridge; by the French and Austrians, just north of the Austrian legation (*e*); by the Italians, across Legation street at their legation (*f*); by the Germans, across the street running along the Tartar wall (*g*) and on the wall (*h*); by the Americans at (*i*); and by the Americans and Russians at (*j*). Afterwards the Americans and Russians increased their barricades on Legation street by (*k*) and (*l*). The whole of Legation street was being fired upon from every direction, the fire from the Chienmen (*m*) being at times severe. The Chinese soon recognized the value to them of a position on the wall south of the legation district, and began advancing from the Chienmen. If the foreigners were going on the wall at all, they must do so before the Chinese reached and held the ramp. Accordingly, a party of American

marines, 15 Germans, and 10 French, under Captain Myers, were sent up on the wall by the east ramp, with instructions to force the Chinese back and secure themselves by barricade. Barricade (*i*) had to be abandoned. A sharp fire from the Chinese in the houses at base of west ramp made the ditch (*o*) necessary for approaching the wall and for future communication. On reaching the top of the ramp the party met with a lively fire from along the wall and up the west ramp, and for protection they began building the barricade (*n*) at the top of the east ramp. A barricade at the top of the west ramp would have made their position more tenable, prevented Chinese from reaching wall by west ramp, and avoided the necessity of afterwards, at great risk, having to storm a barricade built at that very place by the Chinese. But, taking into consideration the fire up the ramp and along the wall, the difficulty of constructing with Chinese labor any sort of a barricade at any place can be imagined, but no time should have been lost in building barricade in proper place. The line of defense on June 20 is shown by (—), which indicates the limit of foreign control; this line was prepared for defense as shown, but was manned at points only where a necessity existed. Communication was necessary between the English and Japanese legations, so the wall (*r*) and the ditch (*q*) were constructed, principally by Christian Chinese, who also held (*p*). This construction was quite difficult, as the British had withdrawn their outpost on the bridge, leaving a free field of fire from the Chinese on the imperial wall at (*s*), and as there was then quite a little water in the canal. The Chinese burned the buildings on north and west of Japanese legation and forced defenders back on June 22. On June 23 the British advanced their line on the north, and themselves burning buildings adjacent to Mongol market, on July 6 advanced their lines to a better position. The ditches (*u*) behind the walls in British legation were to intercept any Chinese mines, and were effective in preventing the successful completion of the mine (*v*) in the northwest corner. The old and valuable Hanlin Library was sacrificed by the Chinese in an attempt to burn out the British. Step by step were the Japanese forced back to the comparatively limited line they held when the siege was raised. At the French legation the Chinese successfully planted and exploded the mine (*w*), burned the

minister's house and those adjoining, and forced the French almost to abandon their legation.

About the German legation the lines suffered but one slight change. At first the Germans had a position on the wall south of their legation, but their communications were poor, as they were subject to fire from Hatamen in going from barricade (*g*) to the foot of the ramp, and a good many were killed in so doing.

The barricade on the wall behind the American legation had scarcely been built when the Chinese from the Chienmen turned their guns on it, battered it down, and forced the foreigners off the wall; but the position was immediately retaken and the barricades strengthened and extended across the wall half way into the bastion. The Chinese continued advancing along the wall under shelter of barricades, constructed principally at night, till they had built a strong barricade (*y*) across the wall and top of west ramp and breached the wall on north side, establishing communication by the ramp to position behind their barricades.

All the while firing was kept up on the legation from the wall. Observing that on account of the thickness of the foreigners' barricade (*n*) and the smallness of their loopholes they could fire straight to the front only, the Chinese extended their barricade (*y*) by the right flank, curving to the front until within a few feet of the foreigners; so close were they that stones were thrown at the foreigners. On July 1, the Chinese attacking from the Hatamen drove the Germans from their barricade (*h*) on the wall and in the street below (*g*), and by the 3rd of July had built a strong barricade at (*a'*); so it will be seen the position on the wall behind the American legation was the only hope of retaining the wall, and that was being attacked from both sides. In the further operations on the wall this fire from both directions necessitated in any position a shelter from each. To do something was imperative, so at 2 o'clock on the night of July 3, Captain Myers, with 53 men (15 American marines, 23 British, and 15 Russians) charged the Chinese barricade, the Americans and British attacking the center and right flank, and the Germans the left, with view of cutting off escape and preventing assistance by the ramp. Within ten minutes the position was taken at a loss of 2 Americans killed and 1 wounded. Captain Myers

was wounded in the leg by running into a spear lying on the ground. A number of Chinese killed had been thrown over the wall, but 27 were buried. After Captain Myers was wounded, Captain Hall was in command on the wall. The foreigners then constructed the barricade (*b*), extended barricade (*r*) to southern side of bastion, using material represented by dotted lines (*e'*), opened their own wall at (*d'*), and dug the small ditch (*e'*), for sheltered communication. Scarcely had the foreigners fortified themselves from the attack by the Chinese on the Chienmen side than they had to begin operating toward the Hatamen for possession of the water gate. After the attack on night of July 3, the Chinese began building a tower of brick (*f'*) from which they could fire over the foreigners' barricade when they were moving toward the Hatamen, and from which they could fire directly into the American legation. A ditch 10 feet deep across the wall at this tower and a tunnel 6 feet long, had been dug, showing their intention to undermine the foreigners. The foreigners utilized the Protestant Chinese under charge of missionaries as overseers in constructing their barricades, usually at night. The first party sent out to construct a barricade to the east, becoming intimidated, built (*g'*) only a few feet away; practically no advantage. Similarly, a party under a corporal of marines built (*h'*), of scarcely any appreciable advantage considering the fact that the Chinese had advanced from (*h*) to (*a'*) in two days. Under the supervision of Captain Hall the barricades at (*k'*) were built on nights of July 12 and 13, at (*l'*) on the 15th, and the shelter ditch (*m'*) for communication afterward constructed. In constructing these barricades, the working party advanced and built their barricade as quickly as possible, then dug the ditch. (*n'*) is a partially constructed bomb-proof cover. Securely fortified in this position the foreigners held command of the water gate and canal, and kept the Chinese off till the relief column, which arrived on August 14, raised the siege. At the end, the American marines were disposed as follows: Three men at an outpost (*o'*) on canal in immediate command of gate; 7 in Fort Myers; 15 on wall over canal gate; two posts, 3 men each, in Russian bank compounds; 3 men at Legation street; and the remainder, about 7 or 8, at barricade on Legation street.

REMARKS.

The number of killed and wounded can be seen from the list hereto attached, marked A. The one wounded American civilian is said to have received his wound while in the act of looting. There were two or three determined attacks by the Chinese, especially the one just prior to the arrival of the relief column; but during the greater part of the siege the firing was desultory and individual. "Snipers"—sharpshooters under cover—caused a great deal of trouble and were much feared; there were not a great many. There is much evidence about the legations of a heavy rifle fire, but little of the artillery. This leads to a wonder as to what became of the terrific hailstorm of shot and shell continually poured upon the besieged. I am told that 2,000 shots were fired and counted in one week. Poor artillery, poor marksmanship, and perhaps counting old "jingals" and such Chinese guns as artillery must account for the little effect.

Considering the number of Chinese actually engaged in the attack and the thousands that were available, the situation of the legation quarter near the Tartar wall, and the positions of the Chinese, I seek in vain some military reason for the failure of the Chinese to exterminate the foreigners. The half-hearted offense must be due to cowardice or to a lack of intent really to destroy the legations and kill the foreigners. I am inclined to believe that both causes operated. The cowardice of the Chinese is well known; the absence of the necessary intent may be explained by a disinclination of the government to oppose the legationers except so far as to divert attention from itself.

The foreigners fought bravely, endured many hardships, and suffered untold miseries in anticipation of the barbarous death which seemed inevitable; and though much has been and will be told of this side of the siege, it nevertheless remains that there were few new developments of any importance to the military world.

SIEGE OF THE PEITANG.

The Peitang, or the French mission, is situated just within the west wall of the imperial city, and is, therefore, entirely separated from the legation quarter. Here all were Catholics,



Handwritten text and a small rectangular box, possibly a signature or a label, located in the lower right quadrant of the page.

against whom the Chinese were particularly active because of the deep root Catholicism was taking in China, due to their methods in directing attention to raising, educating, and Christianizing the Chinese children. Within the large compounds were located all the buildings pertaining to such an institution—cathedral, convent, orphanage, dwelling houses, schoolrooms, etc. The regular contingent consisted of 600 people, including priests, sisters, Christian Chinese men, women, and children, but the influx of refugees just prior to the siege swelled the number to nearly 3,000 souls. One year's supplies for 600 people had just been laid in, and as soon as Christians began to pour in on them an effort was made to gather in more supplies, but interference of the Chinese rendered it futile.

On the 1st of June, 30 French, and on the 10th, 10 Italian soldiers were dispatched to defend the mission. Beginning work after the arrival of the French, barricades were built at (*a*), (*b*), (*c*), (*d*), (*e*), and (*f*). The barricade (*g*) was built by the Chinese, but afterwards taken by the foreigners; the trench (*h*) was dug for communication, and a kind of bomb-proof constructed at (*l*), but neither used very much. Also a small bombproof cover with connecting ditch was built at (*k*); the walls at (*l*) were reenforced. On the 19th of June the Chinese opened fire, on that day killing 47 persons and burning one house. Last communication with the legations was had on the 21st of June. Monsignors Favier and Jardin, priests of the mission, directed the defense, the plan being to hold outer wall as long as possible and if forced back to make final stand in cathedral (*j*), which was loopholed for defense.

In addition to number of officers and soldiers shown in exhibit hereto attached, 10 Christian Chinese were armed with the spare guns on hand. The French had 300 rounds of ammunition per man; the Italians, 90; a few cartridges were reloaded; some spears were made but never used. The Chinese are roughly estimated at 2,000 with about 22 pieces of artillery, some of which were Krupp guns.

The foreigners were generally disposed as follows: 15 men at south entrance; 5 men in buildings in southwest corner; 5 in tower (*m*); 3 or 4 in outpost at (*n*); 3 in each outpost at (*o*) and (*p*), and 5 in (*q*). The Chinese artillery fire was at times terrific, but not very damaging; beginning with the 24th of

July, for three days artillery fire was almost continuous; on first day 580 shots were fired, on second 355, and on third 255. After this the artillery fire ceased for about eight days. Thereafter it was desultory till the very end, when it opened up a heavy fire again. Rifle fire was directed upon the foreigners from all sides. The buildings, especially the cathedral, show effect of a heavy rifle but not so great artillery fire. The Chinese artillery was very poor, their marksmanship worse. Very few lives were lost from gunshots. Occasionally the Chinese would make an attack; a few volleys from the outposts would check them. The foreigners made a sortie out of the south gate and captured one gun; there being no ammunition for it, it was useless to them for defense. The Chinese attempted to plant a mine at (*r*) and two at (*s*), but were discovered and forced to abandon them. Three small mines at (*t*) were exploded, killing one man and damaging the buildings near. The foreigners became aware that a mine was being planted somewhere in the northwest corner, and, while digging a trench along the wall to intercept, the mine (*u*) exploded, killing 1 brother and 23 Christians working under him. The foreigners dug a mine themselves in the northeast corner, which was continually being attacked, but had insufficient powder for it. On the 12th of August at 6 o'clock in the morning the Chinese set off the mine (*v*), leaving a crater about 80 feet in diameter and 30 feet deep. The explosion was terrific, completely demolished adjacent buildings and walls, and killed 5 Italian soldiers (one of the outposts), 1 brother, about 20 Chinese men, and 50 children. The most serious attack was made on the south gate; on the northwest corner the Chinese fired from rifle pits. A few pieces of artillery were fired from positions on the north not indicated on map; probably a change in the position of some battery. The arrival of the Japanese and French troops on August 16 dispersed the Chinese and raised the siege. A reference to the exhibit will show the number of soldiers killed and wounded. In addition to these, about 44 Chinese Christians, adults, and 50 children were killed, and about 250 adults and as many children died of starvation. Mules, burros, ponies, etc., were used for meat, and even leaves from the trees were boiled for food. At the end there was on hand for the remaining about 2,400 people, 1 mule and 400 pounds grain—a little

over 2½ ounces apiece—and this frugal allowance remained only at the cost of 500 deaths from starvation. To enable them to keep up defense as long as possible, soldiers had greater allowance than others.

The comparatively few deaths from gunshots among soldiers continually fighting, the fact that most of the wounds were in the head, that 1,500 rounds of ammunition remained out of the original 10,000, and greater than all, that after a siege extending over two months this handful of soldiers withstood the attack, shows that the greatest care and attention were continually exercised, proves that the best possible dispositions were made, and accords to the soldiers an enviable claim to one of the noblest and bravest defenses known in history.

Very respectfully, your obedient servant,

J. R. LINDSEY,

First Lieutenant, Tenth Cavalry, Aid-de-Camp.

Number of men and casualties during the sieges of Pekin and Peitang.

	Number.		Killed and died of wounds.		Wounded.		Casualties in per cent.			Died of diseases.		Volunteers and independents.		Total.	
	Officers.	Men.	Officers.	Men.	Officers.	Men.	Killed.	Wounded.	Total.	Officers.	Men.	Killed.	Wounded.	Killed.	Wounded.
Legations:															
American	3	53		7	2	8	12.5	17.8	30.3				1	7	11
Austrian	5	30		3	3	8	11.4	31.4	42.8					4	11
British	3	79	1	2	2	18	3.7	24.4	28.1			3	6	6	26
French	3	45	2	9		27	92.9	77.1	100.0				6	13	42
German	1	50		12		15	23.5	31.4	54.9				†	13	16
Japanese	1	24		5		21	20.0	84.0	104.0				9	10	29
Russian †	2	79		4	1	18	4.9	23.9	28.3		2	15	8	7	20
Italian	1	28		7	1	11	24.1	41.4	65.5				1	7	12
Total	19	388	4	49	9	136	13.1	35.6	48.7	2	2	12	23	67	167
Peitang:															
French	1	30		4		8	16.1	25.8	41.9					5	8
Italian	1	11		6	1	3	50.0	33.3	83.3					6	4
Total	2	41	1	10	1	11	25.6	27.9	53.3					11	12
Grand total	21	429	5	59	10	147	14.3	34.9	49.1	2	2	12	23	78	179

* Baron von Ketteler. † Mr. Cordes. ‡ Including Caps. Ando. § Including Cossacks of the legation.

REPORT ON THE PAOTINGFU EXPEDITION AND
MURDER OF AMERICAN MISSIONARIES AT THAT
PLACE.

BY CAPT. GROTE HUTCHESON, SIXTH UNITED STATES CAVALRY.

HEADQUARTERS CHINA RELIEF EXPEDITION,
TEMPLE OF AGRICULTURE,
PEKIN, CHINA, *November 12, 1900.*

ADJUTANT GENERAL, CHINA RELIEF EXPEDITION,
Pekin, China.

SIR: I have the honor to submit the following report upon events and observations incidental to an expedition composed of English, French, German, and Italian troops from Peking, China, to Paotingfu, China, and return, which I had the honor to accompany in the capacity of an attaché or aid-de-camp on the staff of the commanding general, Lieut. Gen. Sir Alfred Gaselee, English army (Indian contingent).

In compliance with paragraph 3, Special Order No. 55, Headquarters China Relief Expedition, dated Peking, China, October 11, 1900, I reported in person to Brig. Gen. E. G. Barrow, chief of staff, British expeditionary force in China, during the evening of that date, and was directed to report to General Gaselee at once for instructions. A short time later I did so, and was instructed to join the command at or near Lukochow, the location of the first camp and where a concentration would take place.

My immediate party consisted of one officer besides myself (First Lieut. G. Soulard Turner, Tenth Infantry, aid-de-camp on the staff of Brig. Gen. James H. Wilson), two mounted orderlies, one cook, and one civilian teamster, six in all. I was furnished with an excellent team of 4 mules, a good, serviceable, standard pattern army wagon, tentage with other necessary camp equipage, and carried supplies for twenty-five days. By taking these preliminary precautions, the party was made independent and quite able to care for itself, which not only was most satisfactory to us, but also relieved those with whom we were associated of all care for our welfare.

On October 12 we proceeded from camp in the Temple of Agriculture to Changyantsuan, a small village some 4 miles

south of Lukochow, arriving there about 5.30 p. m., and where we found the forces either in camp or billeted in the village. I reported to General Gaselee and was informed my tents would be pitched each night with his headquarters. He also told me that during marches I would ride with him, or elsewhere, as I might desire.

The following marches, camps, and distances were made:

- October 12, Pekin to Changyantsuan, 15 miles.
- October 13, Changyantsuan to Luiliho, 17 miles.
- October 14, Luiliho to Sunlintien, 14 miles.
- October 15, Sunlintien to Piedentze, 16 miles.
- October 16, Piedentze to Kucheng, 10 miles.
- October 17, Kucheng to Anshu, 9 miles.
- October 18, remained in camp at Anshu.
- October 19, Anshu to Paotingfu, 11 miles.
- Total distance, 92 miles.

Thus, an average distance of a trifle over 13 miles was covered each marching day.

The road was an ordinary dirt one, not metaled or macadamized, had been used for many years, and is the main highway for travel between Pekin and southwestern China. The streams are generally bridged with heavy stone bridges, some perhaps one thousand years old, and one, known as Marco Polo's Bridge at Lukochow, is said to have been crossed by that celebrated traveler. They are all built alike, and, while much out of repair, should stand solid for many years to come. One river, the Peiho, is not bridged for wagons and was forded (a modern railroad bridge spans this river). The ford is practicable except immediately after heavy rains. In some places the road, years ago, was paved with huge blocks of granite. These places, like the bridges, have not been kept in repair, and many of the stone blocks are out of place, much worn, and deep ruts occur between the blocks. These places on the road are difficult, but passable, for artillery and wagons.

The soil is generally sandy, the country flat, almost treeless, except here and there small groves are found; is highly cultivated and thickly settled, with villages almost every mile. Large quantities of forage could be secured everywhere, as the harvest was about completed, and the fields now look barren and almost without sign of vegetable life; yet it is the richest agricultural district I have seen.

The military force marching from Peking and known as Column B was made up as follows:

Lieut. Gen. Sir Alfred Gaselee, British army, commanding.

British force:

Major General Richardson, commanding British contingent.

Cavalry, four squadrons Sixteenth Bengal Lancers, 400 men.

Infantry—

Two companies First Sikhs, 200 men.

Two companies Twenty-fourth Punjab Infantry, 200 men.

Two companies Twenty-sixth Baluchistans, 200 men.

Total infantry, 600 men.

Half company Madras Sappers and Miners, 90 men.

Twelve battery Royal Field Artillery (4 guns), 125 men.

Total British effective, 1,215.

German force:

Colonel von Normann, First Regiment, East Asiatic Infantry, commanding.

Cavalry detachment, First East Asiatic Cavalry, 1 officer and 12 men.

Infantry—

Second battalion, First Regiment, East Asiatic Infantry, 400 men.

Second battalion, Second Regiment, East Asiatic Infantry, 400 men.

Total infantry, 800 men.

Artillery—

One field battery of 6 guns.

Four guns (Krupp model, 1893).

Two guns (Krupp model, 1898).

Total artillery, 200 men.

Total German effective, 1,013 men.

French force:

Colonel Lalubin, Seventeenth Regiment, Marine Infantry, commanding.

Infantry, two battalions (seven companies), Seventeenth Regiment, Marine Infantry, 800 men.

Artillery, one battery (4 guns), Marine Mountain Artillery, 150 men.

Total French effective, 950 men.

Thus, the total effective force of Column B was 3,600 men.

The Tientsin column, known as Column A, was composed of the following troops:

General Bailloud (French) commanding the entire column and the French troops.

French force:

Cavalry, one squadron Chasseurs d'Afrique.

Artillery, one field battery, 6 guns (of the line).

Infantry, between two and three battalions of zouaves, infantry of the line, and infantry of marines.

One pioneer section.

German-Italian contingent:

General von Kettler (German), commanding.

German force:

Cavalry, one field troop.

Artillery, one field battery, 4 guns (Krupp model, 1898).

Infantry, one regiment of two battalions.

One field hospital.

Italian force:

Artillery, one field battery, 6 guns.

Infantry—

Two companies (bersaglieri).

Detachment engineers.

Baggage, two-thirds of a battalion column.

British force:

General Lorne-Campbell, commanding; (General Pipon, commanding artillery).

Cavalry, one troop, First Bengal Lancers.

Artillery—

Battery B, Royal Horse Artillery, 6 guns.

Detachment quick-firing guns (Maxims) 2 guns.

One 12-pounder (sea gun) and 2 machine guns with Australian contingent.

Infantry—

Six companies, Twentieth Punjabs.

Four companies, Hongkong Regiment.

Ulwar Imperial Service Infantry (one battalion).

One company Australian Marines.

Sappers and miners.

Half company Bombays.

Actual strength of all the units of Tientsin column was not obtainable. Estimated strength about 3,600 effective men.

A small part of this force (French troops), claiming to be a reconnoissance, had proceeded to Paotingfu, considerably in advance of the main column, arriving there as early as October 12, and later, about October 15, this detachment was reinforced by other French troops until the total strength was about 400 men; but they did not enter the city, taking possession of the four outer gates only.

The Tientsin force marched in three columns on parallel roads, the troops of each nation making up a separate force except the Italians, who marched with the Germans.

On October 18 the commanding general of the combined Tientsin force (General Bailloud) reported to General Gaselee at Anshu, when arrangements for proceeding to Paotingfu were completed.

Accordingly, the entire force concentrated at the latter place October 19.

AT PAOTINGFU.

Just before the column reached Paotingfu, General Gaselee was met by a large delegation of Chinese officials from the city, led by Ting Yung, the *fantai* or provincial treasurer, which had proceeded a couple of miles from the wall on the north road for the purpose of showing the readiness of the officials to turn the city over to the combined foreign military forces without opposition, and extend a welcome to all soldiers that they might be considered guests of the city; to offer certain presents, which were declined; and to say that certain general arrangements had been made to provide the troops in part with food and shelter. They also expressed the hope that the troops would be kept out of the city, and were fearful lest the place be sacked and burned.

But little was said to them, General Gaselee replying that action would depend upon circumstances, and that he would deal only with the highest official.

Upon arrival at the city it was seen that the gates were held by the French soldiers under the command of Colonel Droude. They had arrived seven days before and taken possession of the gates, but had not entered the city, and it had been protected. General Gaselee rode to the north gate only, not entering; some Chinese soldiers were inside, but without arms. Immediately after this a conference of the military commanders was held, and it was decided not to enter the city that afternoon, the English and French agreeing to this proposition, the Germans protesting. All went into camp or quarters outside of the walls. Another conference was held at 3 p. m., when it was decided to enter the city formally at 10 a. m. the following morning, October 20. The procession to be made up of the different commanding officers with small staffs and escorts.

Accordingly, the next morning the entry was made, and the four flags of the nations represented by a military force (English, French, German, and Italian) were placed side by side over the four gates. The city was divided into four quarters, and one gate given over to each nation to be guarded, north to the English, south to the Italians, east to the Germans, and west to the French. It was also decided to move general headquarters into the city, and, accordingly, the next

day, October 21, General Gaselee with his staff occupied the Liang-Chiang-Hui-Kwan, or the Guild of the province of Chiangsu and Chiangsi, one of the most important places in the city, where he remained during his stay in Paotingfu.

It was further decided to take formal military possession of the city. A military chief of police was appointed, and the city was divided into four military districts, one of which was assigned to each nation for guard, protection, police, and the quartering of troops, if desired. The German, French, and Italians, in part or in whole, quartered their men in their respective districts, but the English troops remained in camp outside the walls, simply detailing in the city a force of sufficient size to furnish the necessary guards. By the evening of October 22 all these changes had been effected.

By this time it was currently reported that the French and Germans intended to occupy the city with a considerable force during the winter, and that the French were anxious to preserve the city from pillage and destruction. They had already taken charge of the railroad and were pushing repairs.

The buildings, shops, and tracks at Paotingfu had suffered little during the summer, and the road to the south for some 40 miles to Tingchow was in operation, and had been operating more or less all the time. But little is to be done to make it serviceable in that direction to the present terminus, Chengtingfu, rails and ties only to be laid. The railroad is being repaired by the railroad company officials under the protection of French soldiers. From Paotingfu northward to Peking considerable work remains to be done. Already the road has been opened up and is in operation some 8 or 10 miles to the north, and it is claimed by those in charge that it will be running to Peking in from four to six weeks.

Upon arrival, October 19, the harsh, cruel, and inhuman treatment of foreigners during the past summer was looked into, and all manner of stories were repeated. The action of the people here looked so damaging for officials and the inhabitants generally that it seemed some steps in the way of punishment for the wrongful deeds should be taken. On the morning of October 20 General Gaselee spoke to me about the matter and asked for my opinion as to the punishment of any persons guilty of atrocious conduct. He also expressed a desire to know what I thought would be General Chaffee's

plan of action under the circumstances, and how my Government might view his action or the action of the combined military commanders. It was desired to know this especially, as more Americans had suffered and been murdered here than any other nationality, and so far as the actual number killed was concerned the United States had been the greatest sufferer.

I replied that no special power had been delegated to me, and that I could scarcely presume to speak for my Government, but that—

First. In my opinion the United States would uphold the prompt punishment of any officials whose guilty connivance was clear and plain, provided such punishment was meted out for the purpose of example and not to satisfy any petty feeling of revenge or retribution.

Second. That any steps General Gaselee thought necessary and proper under the circumstances would in my opinion meet with the approval of and be indorsed by General Chaffee; and

Third. That in view of the tense state of feeling because of the stories of the atrocious treatment and brutal murder of missionaries that had come to light, I suggested that a commission or board of inquiry should be instituted to make an impartial examination into the conduct of the officials and any other accused persons, and whose report and recommendation might serve as a basis for action.

General Gaselee said some such idea had occurred to him.

The next day, October 21, an international commission was instituted to make inquiry into the treatment of the foreigners of various nations who had suffered at Paotingfu. It was composed of:

General Bailloud, French army, president.

Colonel Ramsey, British (Indian) army.

Lieutenant Colonel Salsa, Italian army.

Major von Brixen, German army.

Mr. J. W. Jamison, civilian, British consul at Shanghai.

The latter, who was present with the forces, has an intimate knowledge of the Chinese language and of the customs and character of the Chinese people.

Before proceeding to the results of the labors of this commission and following in the natural sequence of events the story of the American missionaries takes its place.

STATEMENT AND ACCOUNT OF THE TREATMENT AND DEATH
OF CERTAIN AMERICAN MISSIONARIES AT PAOTINGFU, JUNE
30 AND JULY 1, 1900.

The following statement is made up from accounts of numerous persons and believed to be substantially correct, though little direct testimony of eye-witnesses can be secured, and that bearing only upon some stages of the occurrences.

It must also be borne in mind that the events to be described happened nearly four months ago, and, except in a general way, have passed from the minds of most people here; that immediately following the occurrences they were much talked about, so that different versions and stories were currently believed to be true; that the principal actors have fled; that few persons can now be found who will admit having been present, and, above all, the slight regard in which the truth is held by the Chinese people.

The following Presbyterian missionaries, viz, Mr. and Mrs. Simcox and three children, Dr. and Mrs. Hodge, and Dr. George Y. Taylor, lived in several buildings located in one compound situated near the village of Changchiachuang, lying about 1 mile north of the north gate of the city.

On the fourth day of the sixth Chinese month (June 30, 1900), between 4 and 5 o'clock in the afternoon, the compound was surrounded and attacked by Boxers and villagers, the attack being led by a local Boxer leader of minor rank, named Chu Tu Tze, known throughout the city as a ruffian and bad character generally, but who, the day before, had been presented with a gilt button by the niehtai (provincial judge), Ting Yung (at this writing fantai, or provincial treasurer.)

This button, which was worn by the man at the time of the attack, was in the nature of a decoration or badge of distinction, and was presented by the niehtai as indicating his appreciation of the man's zeal and energy in the Boxer movement. The incident is mentioned merely as pointing out a certain official sanction to the proceedings of that and the following day.

As soon as the compound was attacked the persons mentioned all took refuge in one building, from the upper story of which they could defend themselves. All other buildings in the compound were set fire to and soon destroyed, but a brave defense was made by the besieged, in the course of which Chu Tu Tze was killed and 10 Boxers wounded. Dr.

Taylor addressed the crowd from one of the upper windows in a vain effort to induce it to disperse, but without avail, and the Boxers, being without firearms, could not dislodge and secure possession of their victims. Finally a successful effort was made to set fire to the building. Soon after, the two young sons of Mr. Simcox, Paul and Francis, aged, respectively, about 5 and 7 years, rushed from the building into the open air to escape suffocation from the dense clouds of smoke. They were immediately set upon by the crowd, cut down, and their bodies thrown into the cistern.

The other inmates of the house perished in the flames.

The Chinese Christians and servants, to the number of perhaps twenty, living in the compound, also perished, but whether they were killed or were burned does not appear clearly.

One Chinese Christian who tried to kill himself by jumping into the cistern was taken therefrom and removed to the city and tortured during the night in an effort to secure evidence against the missionaries, corroborative of their alleged practices of cutting out eyes, hearts, etc., and of kidnapping children. This man was afterwards put to death.

In the American Board mission compound, located in the south suburb, lived the following American missionaries, viz, Rev. Mr. Pitkin, Miss Morrell, and Miss Gould. Near by, in another compound, the following English missionaries lived: Mr. and Mrs. Bagnell and one child, and Mr. William Cooper.

About 7 a. m. on the fifth day of the sixth Chinese month (July 1, 1900), being the day following the occurrences described above, and while local excitement ran very high, the American Board mission compound was attacked by Boxers, accompanied by a throng of looting villagers. Mr. Pitkin had already heard of the conduct of the Boxers in attacking the mission to the north of the city and during the night had prepared for the worst, writing a letter of farewell to his wife and friends and burying it with certain small articles of personal and church property near the corner of the house. All were dug up by the Chinese and have not been recovered. The two women, who had occupied a house at the farther end of the compound, had been brought to Mr. Pitkin's house, and, upon being attacked, all took refuge in the chapel and later in a smaller building near by. Mr. Pitkin was armed

with a revolver, with which he defended himself and his charges until the ammunition was exhausted, when the crowd poured into the house and seized the occupants, dragging them out. In the *mêlée* Mr. Pitkin was shot and then beheaded, his body being buried with six or seven Chinese Christians in one pit just outside the compound wall. The head was carried away and into the city, and, it is generally reported, taken into the yamen of the *niehtai*, Ting Yung, as an evidence of the good work of the Boxers, and was seen no more.

During this time and later a force of about 30 Chinese soldiers stood outside the gate of the Pitkin compound with a knowledge of the proceedings, but taking no active part therein. They appear to have remained neutral, doing nothing.

Miss Gould and Miss Morrell were taken out of the compound and into the city. Miss Gould appears to have been so greatly frightened by the rough and brutal conduct of the Chinese that she had fainted from shock and fear, and remained in a more or less comatose condition for some time and was unable to walk. She was accordingly bound hand and foot and slung on a pole or lance, as pigs are carried in China, and taken to the city. Miss Morrell, being a fearless woman of considerable moral strength, was able to walk, and did so. In this manner, Miss Gould being carried and Miss Morrell walking, but being led by the hair, they were taken to the Chi-Sheng-An Temple, in the southeast corner of the city near the wall, one of the headquarters of the Boxers, where they remained all day. En route the streets were thronged with people, many of whom clutched and tore the clothing of the two women, which soon was much tattered, but no deliberate effort to parade them in a nude state was made. Neither does it appear that they were violated, such in fact is highly improbable, but they were roughly handled and knocked about.

Chinese Christians and servants in the American Board mission compound, to the number of perhaps ten, also perished about the time of Mr. Pitkin's death and were buried with his body.

During the day, Mr. and Mrs. Bagnell, one child, and Mr. William Cooper (?) were also brought to the Chi-Sheng-An Temple, and presumably all were put through a form of

examination as to their guilt, according to the general custom of the Boxers. (The experiences of the Bagnell party are not touched upon until this time, having no direct bearing upon the treatment of Americans.)

Late in the afternoon, about 6 o'clock, perhaps, the entire party was conducted out of the city. During the day Miss Gould had recovered her strength and self-possession and was able to walk.

The following method was adopted: The hands were bound and held in front of the body, the wrists about the height of the neck; a rope was then tied about the wrists, passing to the rear around the neck, thence to the wrists of the next person behind, thence about the neck, and so on. The child was not bound, but ran along clinging to her mother's dress.

The end of the rope in front was seized by two men, and the doomed party thus led in single file, all bound together like Chinese criminals, viewed by an immense throng of the populace, were led through the streets, passing out by the south gate to the place of execution at the southeast corner of the wall, between the moat and the wall.

Here all were executed by being beheaded, except the child, which was spared by a Boxer.

The bodies and heads were insecurely buried in one pit about 40 yards from the south wall and about 70 yards west of the corner.

Both compounds and graves were personally visited by me.

I certify this to be a true account, as gathered from various sources, and substantially correct.

GROTE HUTCHESON,

Captain, Sixth Cavalry.

PAOTINGFU, CHINA, *October 25, 1900.*

The international commission, formerly referred to and described, held daily sessions to include the 27th of October, when it concluded its principal investigations, submitting the following recommendations, which were formally indorsed by General Gaselee and sent to His Excellency, Field Marshal Count von Waldersee, for final action:

The following Chinese officials were recommended to be put to death by the Chinese method in vogue for criminals—beheading: Ting Yung, the fantai or provincial treasurer,

formerly and at the time of the murders of the missionaries the niehtai or provincial judge; Quei Heng, the chief Tartar official of the city and one of the most prominent men to offer moral, financial, and official aid to the Boxer movement; and Wang Chan Kuei, a lieutenant colonel in the Chinese army and the military commander of the cavalry camp opposite the east gate of the city where the Bagnell family repaired without avail for refuge, and by whom their silver and other valuables were removed.

The following official was recommended to be degraded and removed from office and held at Paotingfu under military restraint until his successor is appointed and arrives: Shen Chia Pen, the niehtai or provincial judge, but who was prefect of the city at the time of the murders.

The following official was recommended to be sent to Tientsin for trial: T'an Wen Huan, the present taotai, who, it is alleged, sent money and arms from Tientsin for Boxers at Paotingfu.

The board further recommended that the gates of the city be destroyed, that all pagodas and other buildings on the walls be burnt, and that the southeast corner of the city wall be demolished.

On October 27, in accordance with orders from General Gaselee, the following public places were blown up and destroyed:

Cheng-Huang-Miao Temple, this being the temple of the tutelary divinity of the city, and considered especially precious, so that its destruction was a blow to the pride of the people and its loss viewed as a disaster and punishment to the city.

Chi-Sheng-An Temple, this being the temple in the southeast of the city, one of the Boxer headquarters, and the place where Miss Morrell, Miss Gould, and the Bagnell family were examined and held by the Boxers for some hours previous to their murder.

A list of some twelve or fifteen temples was submitted by the English with request that they be destroyed during the winter by troops occupying Paotingfu. What action was taken in the matter is unknown to me.

On October 26 (Rev.) J. W. Lowrie, a missionary who belonged at Paotingfu and whose residence in the Presbyterian mission compound had been destroyed, handed me a

letter requesting that a suitable building or buildings be set aside in the city for the use of the Presbyterian mission, the American Board mission, and the Chinese Inland mission (English). The request was made by him in the name of all, as being the only representative present of the three missions.

It was favorably indorsed by me and forwarded to General Gaselee; the latter sent it to General Bailloud requesting favorable action; any building set aside to be for temporary occupancy only and to be used until such time as permanent arrangements could be perfected.

Prior to the arrival of the Pekin troops, a company of French soldiers proceeded to Chentingfu to release certain missionaries there. Mr. and Mrs. Griffith, a young child, and Mr. Brown, all English missionaries, were released and brought back, but they had not suffered any unusual hardships and had been cared for by local officials. There had been no American missionaries at the place, and I could not learn of the whereabouts of any in the southern part of Shansi. Another English family of missionaries, the Greens, being man, wife, and child, with a sister-in-law, a Miss Cregg, had endured much suffering and hardship during the summer. Their story was a sad one, indeed, but arriving here September 6, after the fall of Pekin, they had received attention.

I visited the compounds belonging to the American Board mission, the Presbyterian mission, and the Chinese Inland mission (English), and viewed the ruins and desolation. The grave of Mr. Pitkin was pointed out, and the graves of those murdered at the southeast corner of the wall were also visited.

During the stay of General Gaselee at Paotingfu several reconnoissances and foraging parties from the troops of various nations were sent out to scout the country in the vicinity. As a rule, the villages and their inhabitants were peaceful, but at one place to the west, in the hills in the vicinity of Mantchang, Boxers were encountered and three British soldiers wounded. A second and stronger party of British forces sent there later destroyed the village and killed about 100 persons, presumably Boxers or Boxer sympathizers, as the village was found to be intrenched, and some weapons—rifles, swords, and spears—hidden or buried, were discovered.

During the march to Paotingfu the presence of the French flag was noticeable everywhere. Each village that was reached fairly blazed with them. Various explanations were offered, but probably the real reason was a desire to establish prior occupancy in case of future diplomatic difference. Similarly, Paotingfu was occupied by the French before the arrival of the combined forces, and the railroad extending through that place to Peking on the north and Ting on the south was under protection of the French and was being repaired by the railroad officials. The road was not entirely dismantled, though that portion extending north toward Peking was partially destroyed, its destruction having been accomplished after the fall of Peking. To the south the road had not been destroyed, but was operated by the Chinese until prior to the arrival of the French troops. Chinese troops retired upon it and partially destroyed some of the engines at Ting. Considerable rolling stock is still at Paotingfu, but only one small yard engine. The buildings and shops located there are all intact. The protection of French rights and investments in this property was the ostensible reason for the activity of French soldiers, they being the first to occupy all places of importance.

Paotingfu is to be occupied this winter by German and French troops; 2,000 Germans and 1,200 French were left when General Gaselee ordered all others back, and these were to be increased to some extent. It was currently reported about October 26 and 27 that an expedition of French and Germans would penetrate as far to the west as Thaiyuan before cold weather, and, from the preparations being made in the way of supplies and the evident hostile feeling of the Germans for the Chinese, it is not at all unlikely that such will be done; the Germans going to punish Chinese, the French going to keep in touch with the Germans. The French policy toward the Chinese is quite the opposite, it being their desire to establish themselves as having the most kindly feeling for them.

As an evidence of this, the French commander protested in writing against any troops being quartered in Paotingfu, submitting the claim that the city was under French protection and their rights and claims should be respected by reason of prior occupancy. This claim was not allowed.

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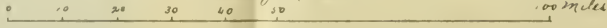


SKETCH
SHOWING
ROUTES OF MARCHING COLUMNS
PAO-TING-FU FORCE
OCT., 1900



THE LORAIN PETERS CO. PHOTO-LITH. WASHINGTON, D. C.

Scale of Miles



THE RETURN FROM PAOTINGFU.

The following order indicates the routes of the marching columns returning from Paotingfu; they are indicated also on the appended map:

PAOTINGFU FORCE ORDERS.

HEADQUARTERS, PAOTINGFU, CHINA,

October 24, 1900, 3 p. m.

1. In accordance with instructions received from his excellency, Field Marshal Count von Waldersee, Column B of the Paotingfu force will return to Pekin in three columns as below detailed, to arrive at Pekin on or about November 6, 1900.

(a) WESTERN COLUMN.—The troops at Ichoo, under the command of Colonel von Normann, to reconnoiter westward to the Great Wall, returning thence along the foot of the hills to Pekin.

(b) CENTRAL COLUMN.—The remainder of the German-Italian troops of Column B, under the command of Colonel Garioni, to march in the general direction of Yungcheng, Sincheng, Kuan, and Huangtsun to Pekin; probable date of departure October 28.

(c) EASTERN COLUMN.—The remainder of the British contingent of Column B, less details mentioned below, under the command of Major General Richardson, to move in the general direction of Yungcheng, Paikoutien, Yungtsing, Langfang, and thence north to Pekin; probable date of departure October 27.

Mule transport only to be taken, if possible. All carts that can be spared are to proceed by the direct road through Chochou with a small escort, for which purpose all weakly and footsore men and horses are to be detailed. Captain Douglass will command this convoy, and will withdraw with it all British detachments on the line of communication south of Luikucho.

2. Major General Campbell will detail one field troop of cavalry under a British officer to accompany General von Gayle to Ichou on the 26th of October, and return thence to Pekin with the Ichou or western column, whence they will rejoin the headquarters of their regiment.

3. Major General Campbell's brigade will return to Tientsin by a route to be hereafter published, leaving Paotingfu on or about October 26.

4. Lieut. Gen. Sir A. Gaselee, with his personal escort, will leave Paotingfu for Pekin by the direct route through Chochou on the 27th instant.

5. The following paragraph of Army Orders No. 603, dated Tientsin, October 8, is republished for the guidance of officers commanding columns:

"4. In order to utilize the resources of Paotingfu and of the villages, etc., on and in the vicinity of the lines of communication for the supply of troops, every act of violence against the peaceful inhabitants and all unauthorized requisitions are to be avoided. On the other hand, as far as is practicable, on each side of the line of march the peaceful population is to be protected from oppression by Boxers, and as against the latter the severest measures are to be taken."

By order,

G. H. W. O'SULLIVAN,

Lieutenant Colonel, Staff Officer, Paotingfu force.

General Lorne-Campbell's route of march from Paotingfu to Tientsin was designated as follows: Through Changteng, Chiucheng, Wangchiakou to Tientsin.

I accompanied General Gaselee, who returned by the main road. We left Paotingfu October 28, arriving at Lukochow on the 31st, where General Gaselee, with his staff and escort, camped for the night. I obtained permission for my party to proceed to Pekin. We accordingly did so, arriving about 5 p. m.

The return march was made without special incident.

I have endeavored to cover fully the important features of the expedition, especially with reference to events at Paotingfu.

Incidental to it, however, some good opportunities for the observation of the forces of other nations during actual field work were presented. These have been covered in an admirable way in the report of First Lieut. G. Soulard Turner, Tenth Infantry, herewith submitted. But I shall take occasion at a later date to submit some remarks upon observations made of special military features noted.

The experience was novel and interesting, and not without its valuable lessons.

The party was shown every courtesy and consideration by General Gaselee personally, and by each member of his staff, and at Paotingfu the most kindly interest in the fate of the American missionaries was manifested by all, and needful steps taken to punish the guilty.

I have the honor to be, very respectfully,

GROTE HUTCHESON,

Captain, Sixth Cavalry.

REPORT ON MARCH OF TROOPS COMPOSING PAOTINGFU EXPEDITION.

BY FIRST LIEUT. G. SOULARD TURNER, TENTH UNITED STATES INFANTRY, AID-DE-CAMP TO GENERAL WILSON.

PEKIN, CHINA, *November 2, 1900.*

ADJUTANT GENERAL CHINA RELIEF EXPEDITION.

SIR: I have the honor to submit the following report of an expedition of international troops against Paotingfu, October 12 to 31. Pursuant to instructions contained in Special Orders, No. 55, dated Headquarters China Relief Expedition, October

11, I reported to Gen. Sir Alfred Gaselee on October 12 at Lipafang, and was assigned by him for duty on his staff as additional aid-de-camp and military attaché. I desire to take this opportunity to thank General Gaselee and the officers of his staff for their kind and courteous treatment throughout the expedition.

The first march to Lipafang, covering 16 miles, was made independently by each contingent. The command was consolidated there under the command of General Gaselee, the French force joining the following day at Luluiho. The second march was to Luluiho, covering a distance of $14\frac{1}{2}$ miles. From thence the march was to Sunglientien, $15\frac{1}{2}$ miles; thence to Peiho, $15\frac{1}{2}$ miles; thence to Kuchientien, 9 miles; thence to Anhsu, 9 miles. At Anhsu a halt of one day was made for the purpose of resting the troops, gathering forage, reconnoitering, etc. On October 19 the command marched to Paotingfu, 13 miles distant from Anhsu, making a total distance of $92\frac{1}{2}$ miles.

General Gaselee was met about 3 miles from Paotingfu by a deputation composed of the principal officials of the town, with a large retinue of servants and followers. These persons informed General Gaselee that quarters had been provided for the different contingents in the adjacent villages, and that parties had been sent to the surrounding villages to collect forage and supplies for the troops. In fact, throughout the whole march from Pekin, the officials of all the principal cities were anxious to learn what was the pleasure of the commanding general, so that they might conform to his desires. Supplies were frequently offered, and every assistance given to gain the favor of the foreign troops. The English contingent, as far as possible under the circumstances, paid for the supplies, forage, and animals that they commandeered. The Germans gave due-bills on the Chinese Government for the supplies, etc., received by them.

The Chinese army, variously reported at from 1,000 to 5,000, was encountered by the reconnoitering party on the flanks. Trouble was avoided with them, however, except in one case, as they seemed to be only too anxious to clear the line of communication, as had been requested of them by General Gaselee. The exception referred to was an encounter between the Germans and Chinese troops in a small village west of Anhsu. A foraging party of 50 men had been sent out, and

upon their return they reported that they had encountered a detachment of 1,000 infantry and cavalry. It is said the Chinese opened fire, but without effect. The Germans replying wounded two Chinese and captured the village, together with 500 infantrymen, with arms and ammunition; two Krupp guns, 9-pounders, and a number of flags. The cavalry escaped.

In each town on the line of march French flags were found on gates, walls, and residences of officials and citizens. It was reported that a French officer, with a small escort, rode one day in advance of the column, promising protection to all persons who would fly the French flag. The result of this came to nothing, as the towns were looted along the whole line of march, to a greater or less degree, according to the opportunity afforded the soldiers by various halts.

The part of the Paotingfu expedition which marched from Peking, known in official reports as Column B, was composed of the following troops:

British, under command of Lieut. Gen. Sir Alfred Gaselee: Four squadrons Sixteenth Bengal Lancers, 400 men; two companies First Sikhs, two companies Twenty-fourth Punjab Infantry, two companies Twenty-sixth Baluchistans, the infantry comprising 600 men; one-half company Madras Sappers and Miners, 90 men; four guns Twelfth Royal Field Artillery, 125 men; total 1,215 men.

Germans, commanded by Colonel Von Norman: One battalion First East Asiatic Regiment, 400 men; one battalion Second East Asiatic Regiment, 400 men; one battery 4 guns, 150 men; one battery 2 guns, 50 men; total 1,012 men.

French, under command of Colonel Lalubin: Two battalions Seventh Marine Infantry, 800 men; one mountain battery, 4 guns, 150 men; total 950 men.

Italians, commanded by Colonel Salsa: One battalion Seventh Infantry Regiment, 300 men, and 200 sailors, acting for the expedition as infantry; total 500 men.

Total of the entire column 3,677 men.

EQUIPMENT.

BRITISH.—The equipment of the British Indian troops, as regards clothing, was about as follows: Khaki uniform with shoes and putties; turbans in place of hats, and a short but very heavy "top-coat," carried slung on the shoulder. Accouterments of the infantry soldier are haversack, canteen, rifle

and bayonet, with three cartridge boxes holding 100 rounds of ammunition, worn on a waist belt, two in front and one behind. Following each infantry regiment are a number of pack mules, varying in number with the size of the command and the character of the march, carrying extra ammunition, stretchers, intrenching tools, bedding, tentage, and all the extra clothing the men might need. The tent used by these troops is a conical wall which holds 16 men and weighs 160 pounds. The cavalry is armed with lance, saber, and rifle; the saddle is fitted with two packets in front, blanket roll, carbine, and saber are slung behind. The artillery is armed with a carbine. Pack mules are provided for both artillery and cavalry.

GERMANS.—The German marching uniform consists of loose-fitting coat and trousers, made of dark-blue cloth, low boots, and a small cap without visor. The infantry soldier carries haversack, canteen, intrenching tool, knapsack, and shelter tent half. In and upon the knapsack is packed a rain coat, a khaki suit, which is donned after marching; an extra pair of shoes, towel, soap, and a mess can somewhat similar to ours, but much larger and heavier. He also carries rifle, bayonet, and two cartridge boxes. The cavalryman is armed with lance, carbine, and saber, and wears his saddle packet and blanket roll in a similar manner to the English cavalryman. The canteen which is carried by the cavalryman is fitted with a leather cover, which can be taken off and used as a water bucket. It will hold about two quarts of water. The saddle used seems to be very heavy and cumbersome. The artilleryman is armed with a carbine.

FRENCH.—The French soldier wears a blue uniform, with shoes and short leggings. He carries a cap and helmet, which seem to be interchanged at his discretion. The accouterment consists of canteen, haversack, ration can, knapsack, two cartridge boxes, blanket roll, rifle, and bayonet. Cooking utensils for a company are distributed amongst the men, so that it was not unusual to see one soldier carrying a pot, another a coffee urn, etc. The intrenching tools of the French were carried on mules.

ITALIANS.—The Italians were clad in blue, wore helmets and light boots. The naval contingent wore shoes, with leggings. The equipment of the Italian soldier is exactly similar to ours: canteen, haversack, shelter tent half, and blanket

roll; but he carries cartridge boxes in place of a belt; in fact all the troops of the expedition, excepting the Australian contingent, carried cartridge boxes in place of belts. Reserve ammunition was carried by all the forces on pack mules.

The English battery was composed of four 3.6-inch guns, with limber and caisson for each, battery wagon and forge, with twenty-four extra horses. The battery presented a fine appearance on the march, and was apparently well disciplined and drilled. The most evident fault to an observer is the extreme weight of the harness and carriages, and the large amount of accouterment and paraphernalia that is carried hanging about the guns and caissons, most of which, it seems, could be dispensed with.

The German artillery consisted of six guns, four of which were 8.8-centimeter, Krupp model '93, and two 7.7-centimeter, Krupp model '98; with a combination battery wagon and forge, carrying supplies for the entire battery for one day. The four large guns each have limbers attached, and there are six caissons to the battery, three for shrapnel and three for shell. The latter caissons are distinguished by a broad yellow band around the body. Caissons carry 75 rounds, and the limbers 25 rounds of ammunition. The gun carriages, caissons, and limbers are quite heavy. The harness and animals of all guns, including the mounts of the men (these being horse batteries), were native acquisitions and very poor. The two smaller guns presented a better appearance. The carriages, limbers, and caissons, except the wheels, were built of steel, small and exceedingly light, without superfluous equipment, and apparently capable of great mobility. The character of this report does not permit of a detailed description of the breech mechanism of this piece; it is sufficient to say that the arrangement is both simple and strong, and the idea is apparently an excellent one, on account of the fact that the charge and projectile can be loaded simultaneously in separate chambers, and the breech can be opened and closed by two motions of a lever. The powder charge for this piece is put up in brass canisters, which are ejected automatically after firing, and are saved for reloading.

The French had four small, light mountain guns mounted on small carriages and drawn by one horse each. The ammunition was carried on pack mules. These pieces were not first-class.

With the German contingent was a portable oven, made of sheet iron, mounted on four wheels, and drawn by four mules; also a specially constructed wagon, which is used to mix the dough for bread. This oven has a capacity for 500 three-pound loaves per day. The baking is done during the night. While on this trip all the German troops were supplied with fresh bread daily.

The transportation of Column B was as follows:

BRITISH.—To carry fourteen days' rations and three days' forage, the British used 144 two-mule carts (English pattern, capacity 800 pounds each), 39 Peking carts, two mules each, 17 pack mules, and 12 extra mules ready harnessed. To carry seven days' rations, extra ammunition, intrenching tools, officers' and men's bedding, tentage, etc., 1,000 pack mules. The hospital transportation consisted of 32 litters, 8 coolies to each, 4 carrying at one time; 13 dinghies (ambulances), 2 mules each, besides several carts and mules with each organization carrying litters and hospital supplies.

The German transport consisted of Chinese carts, the number being increased and decreased from day to day, so that an accurate statement can not be given.

The French had carts like the Germans, but had in addition about 50 camels.

The Italians had at the start 28 Chinese carts and 25 Italian carts. The quantity of their transportation was also increased.

The French, German, and Italian transports were throughout a nondescript collection of native carts and animals, poorly organized and handled, excepting the camels of the French. These animals seemed to be suitable for work of this nature. They carried about 500 pounds each, and were always well up with the transport column.

The English transport may well be noticed more closely. The quantity used for transporting supplies for the Peking contingent can not be taken, however, as a criterion for the British-Indian service. The actual allowance for the field is given as one mule to every twelve men, but on this expedition no limit was set, and the transport was added to from day to day, worn-out mules being replaced by fresh ones, and additional animals being added as required. These mules were commandeered from the country, and were either paid for on the spot, or a due-bill given on the commissariat at Peking. The maximum price paid was \$50 and the minimum

\$25, Mexican money. The British cart is a two-wheeled vehicle, made with a pole for two mules; it is very heavy, and has an extreme carrying capacity of only 800 pounds. The weight of a pack for one pack mule is prescribed in government regulations as 120 pounds, and the ration of the mule is 5 pounds of grain per day. The mule harness is an ingenious arrangement which can be used, with very little alteration, as a pack or draft harness, so that in case a cart is irreparably damaged a part of the load can be packed on the mules. The remainder of the load would probably fall to the extra mules, which were at all times with the transport. The pole of this cart is fitted with a horizontal iron bar, which adjusts on top of the pack saddles when used as draft harness. An iron rod fitted to the bits being substituted for a breast yoke. The mules used by the British were too light for the work required of them, and in a rapid maneuver would hardly stand the necessary work. In some of the carts the British used native horses, which seemed to stand the work better than the mules. The English pack mule is not herded as in our service, but is tied by chains in tandems of three, one coolie being told off to lead each tandem; he also waters, feeds, and cares for the animals. In their endeavor to keep out of the mudholes and to select the easiest part of the road for themselves, the coolies often allowed their animals to become considerably strung out, but were always able, however, to close up before coming into camp. As a whole, the transport was well disciplined and cared for. In the morning it was never late starting, and at night it was always well up with the troops, unless delayed by a French, German, or Italian transport in front of it. Two officers were detailed to take charge of and remain with the baggage at all times; they started it in the morning at the proper time and in its proper place, and at night conducted it to its position in the camp; they also saw that the animals were fed and properly cared for. All drivers, packers, and men employed with the transport belong to what is known as the coolie corps, which must have comprised on this expedition at least 800 men. The German, French, and Italian contingents used soldiers as drivers. All transport was properly guarded.

CAMPING.

All the troops comprised in the Peking column, except the English, were billeted in villages at every halt, and also

during the stay at Paotingfu. The selection of quarters was made by officers from each organization, sent ahead with the advance guard for that purpose, the town being previously divided into districts, one for each contingent, by the adjutant general of the force. The buildings selected for quarters were marked with chalk, showing the company, regiment, etc., that were expected to occupy them. The troops were always billeted without delay or confusion. The English system for camping a command is exceedingly good, and is about as follows: An officer of the commanding general's staff, usually the adjutant general, is sent forward each day to select a suitable site, being previously instructed just how far to go. After the general site has been selected, an officer from each organization is sent forward, with assistants, to report to the staff officer before-mentioned and to ascertain from him the general location of his particular camp. After this is done, each officer proceeds to his position, lays off accurately and marks with flags (different colors for different organizations) the exact location of the company streets, kitchens, picket lines, etc., of his subdivision. The hospital, headquarters, and transport are marked in the same way. As each organization reaches camp it is met by its representative and conducted without delay or confusion to its proper location. The camp sites were always well selected, and as near water and fuel as circumstances would permit. They presented a neat, orderly appearance, with proper roadways, straight picket lines, company streets, etc.

MARCHING.

The marches, with the exception of three, were exceedingly short. The weather was fine and the roads good. The different contingents alternated in the advance. There was practically no straggling amongst the British and Germans. The Italians and French were somewhat inclined to lag, but the severe measures taken by their officers prevented any serious breaking up of the column. Attention could not help being drawn to the soldierly manner and bearing of the Germans, whose extremely heavy kit did not seem to affect them in the least. Too much credit cannot be given for the handling and work of the English sappers and miners, who, mounted on horses, with their tools in suitable racks, also on horses, rode just behind the advance cavalry, and rendered

excellent service, repairing roads, filling mud holes and boggy places, and preparing ramps for the camping ground, which were almost always above or below the road level. * * * Marches were always begun about 7 a. m., and continued without halting for dinner until camping ground was reached, generally about 3 p. m. Practically speaking, the troops were always prompt in starting.

* * * * *

ADVANCE GUARD AND RECONNOISSANCE.

The column always marched with a regularly formed advance guard (without flankers), furnished by the leading contingent, and a rear guard furnished by the rear contingent. In addition, the English cavalry formed a screen in front, with flanks well drawn back, covering with about 20 men, some 2 miles of front. Patrols of from 6 to 10 men were constantly on the flanks, and reconnoitered the country for at least 5 miles on either side.

Outposts were always established at a halt, and proper precautions taken to guard against surprise. The country contiguous to Paotingfu for 30 miles in all directions was divided into four districts, one being given to each force, for reconnoitering, and from which to draw forage and supplies. In the British service, with the advance cavalry, rides what is called an "intelligence officer," who is furnished with a competent interpreter, and the necessary means of communication, i. e., mounted men. It is the duty of this officer to gather information of all kinds that may be of use to the commanding officer, both before and during the march. On this expedition this duty was well performed, and the commanding general was at all times well informed of what was taking place in front. In this connection it may be well to call attention to what is termed route information. Before leaving Peking the field press outfit of the sappers and miners printed and distributed among the proper officers, a sheet stating the route from Peking to Paotingfu, with each camping place designated, giving immediate and total distances of each, general character of the roads, locations of rivers, whether they were bridged, and also general information regarding the enemy, and the likelihood of an encounter with him, with authority for the statements and date of same.

The gathering of this information is the work of the intelligence officer. The line of communication between Peking and Paotingfu was kept open by cavalry patrols, and temporary posts of from 6 to 20 men, left in the principal towns along the line. Communication was had with Peking by courier every 3 days. The British had with them a complete signaling outfit, for both heliograph and flashlight. The latter was used most advantageously at Paotingfu.

RATIONS AND SUPPLIES.

The continental contingent of Column B did not provide itself with rations for the entire trip. The English contingent, however, was fully equipped for the intended duration of the expedition, i. e., twenty-one days. The German, French, and Italian troops were expected to subsist to some degree on the country, and did so; particularly is this true of the French and Italians. The Germans carried from Peking nine days' rations, the Italians seven days' rations, and the French, who joined us at Luluiho, two days' rations. Depots were established along the road in rear of the column, and were supplied from Peking; the troops in turn were supplied from them, until Paotingfu was reached, when considerable supplies were also received from Tientsin by boat. The ration for the Indian troop consisted of tea, flour, a kind of grain called "atta" (similar to rice), fresh meat when possible, butter, and a season component. The English ration in the field is about as follows: 1 pound of fresh or canned meat, 1 pound of soft or hard bread, 1 pound of potatoes, cheese, jam, and a season component. Grog is sometimes issued to the men. The German ration on this trip consisted of what is known "erbswurst," a canned mixture of peas, meat, and potatoes; canned dried fruit, eaten either dry or boiled; fresh bread, baked every day, in portable oven hereinbefore mentioned. Some tea and coffee were issued, but mostly cocoa, which was drunk in large quantities. There was also a seasoning component. The Germans, in addition, carried at all times what is called "eisener bestand." This is simply an emergency ration of compressed meat and vegetables, and is only used in cases of great necessity. The French, as before stated, depended largely on the country, and, as their soldiers were good foragers, they did not fare badly. The ration carried consisted of canned meats, rice, hard bread, tea, and

coffee. Wine was also issued; the allowance being about 3 centiliters per day. Tea was carried in canteens whenever possible; water, if drunk at all, was first sterilized by using permanganate of potash. All contingents drove along with their baggage trains numbers of sheep and cows, so that fresh meat was frequently issued.

HOSPITAL SUPPLIES, ETC.

The British arrangements for the care of sick and wounded were excellent. Column B had 32 litters with bearers, 13 ambulances, each with a carrying capacity of four men, beside additional stretchers with each organization. During the stay at Paotingfu, a first-class hospital was established in a suitable building just outside the city. The Germans, French, and Italians had from 10 to 12 Peking carts, which had been altered until they were suitable for transporting two men. Stretchers were carried on carts. So far as could be learned no hospital was established at Paotingfu, during the occupation, by any of the above-mentioned contingents.

TIENTSIN FORCE, COLUMN A.

The force from Tientsin, known as Column A, under command of General Bailloud, French, consisted of the following troops:

British, commanded by Lorne-Campbell: One company Australian marines, 2 machine guns and 1 twelve-pound naval gun; six companies of the Twentieth Punjab Infantry; four companies First Bengal Lancers; field battery Royal Horse Artillery, 6 guns, 2 quick-firing guns, Maxim; one battalion Ulwar Imperial Service Infantry; half company sappers and miners.

French: One squadron of Chasseurs d'Afrique, one battery of 6 guns, three battalions of zouaves, one pioneer section.

Germans: Two battalions of infantry, one troop of cavalry, one battery of 4 guns, one field hospital.

Italians: Three companies of infantry, one battery of 6 mountain guns, one pioneer detachment.

The Germans and Italians were commanded by General von Kettler.

This force marched from Tientsin in three columns, with most of its heavy baggage on barges in the canal. It arrived

at Paotingfu as follows: Germans and French, Friday, October 19; British, Monday, October 22. This column was consolidated with Column B, from Peking, and both were under the command of Gen. Sir Alfred Gaselee during the stay at Paotingfu. Upon the break-up at Paotingfu General Lorne-Campbell was sent with his command to return to Tientsin via Changteng, Chiucheng, and Wangchiakou. The German, French, and Italian troops were divided, some remaining at Paotingfu and some returning to Peking with other columns mentioned elsewhere. It was not feasible to obtain the exact numbers of these different contingents.

The road to Paotingfu is the main highway from Peking to central China. It is a broad, level country road. It is composed of the alluvial soil of the great plain, varying in width from 6 to 50 feet. At the present time it is in excellent condition, but during rainy weather would be exceedingly heavy. There are stretches, however, where it is sandy, particularly from Luluiho to Lukochow. There are no materials at hand except the soil of the country for permanent repairs, but any amount of kaoling can be had suitable for temporary reconstruction for the passage of an army. The roadbed for almost the full distance is sunk below the level of the country, notably from Luluiho to Lipafang, due, it is said, to the traffic of many years and to heavy rains. There are four bridges of considerable size on the road; they are that at Lukochow over the Hunho, at Luluiho over the river of the same name, at Chowchow over the Paikoho, one between the latter place and Luluiho. The first of these bridges, known to foreigners as the Marco Polo bridge, is interesting from the fact that it was described by the noted traveler of that name. It is about 500 feet long, 30 feet wide, and has ten piers. Luluiho bridge is 300 feet long, 30 feet wide, and has twelve piers. Chowchow bridge has eight piers; it is 150 feet long and 20 feet wide. The bridge between Chowchow and Luluiho is about 150 feet long, 20 feet wide, and has four piers. All these bridges are entirely built of stone, and are in construction like all Chinese bridges. There are two or three smaller bridges on the route, some of which have fallen into disuse, the roads running entirely around them. All these bridges are suitable for the passage of artillery and baggage trains. There are many villages along the main road, as throughout all northern China. In this instance there are only about six

worthy of notice: Lukochow, Liangshanchien, Luluiho, Chowchow, Tinghsing, and Anhsu. These are all walled towns of the usual Chinese type. The houses are for the most part built of mud; the various yamens and principal buildings are of brick. The surrounding country is open and flat. Any one of these towns could be easily defended, except Lianshanchien, which has on its north side a considerable hill from which the town could be commanded. In fact, it was from this hill that the town was shelled and compelled to surrender, by the Germans, shortly after the relief of Peking. The Delta Plain of North China, it is believed, needs no further description. It is deemed sufficient to say that the country between Peking and Paotingfu is no exception to the rule, a fertile soil and a complete state of cultivation. At this season of the year, when the crops are harvested and the country is clear, it is an ideal one for cavalry and infantry, and with a properly equipped and handled pioneer detachment, light artillery could be freely used.

There are seven rivers on the line of march. The principal is the Hunho, at Lukochow. These rivers are all of the same general character, spreading over a large bed during the wet season and dwindling to almost nothing during the winter. The beds and banks change from year to year. The Peiho and Suho were forded. The bottoms were hard but sandy, and would probably wash during a freshet. At the ford of the Peiho the velocity was about 2 miles per hour. The vicinity of any one of these rivers affords good camping ground for a force of any size. Water is also available near any of the large towns and most of the smaller ones. Wood can not be obtained except in the towns, and then only in small quantities. In this season of the year forage of all kinds is abundant along the whole route. Later on and during the spring it would probably be more difficult to gather it in large quantities; but it is not thought that it would be a serious question at any time.

There are no natural positions which strike one as being particularly fitted for military defense, except perhaps a low line of hillocks around Lianshanchien and Lukochow.

There is one railroad on the line of march. Before the recent Boxer movement this was a single-track, standard-gauge, stone-ballasted road, with an allowance in the construction of the roadbed and all bridges for an additional

track. This road has been torn up; the rails are left, but ties, fish plates, etc., have been carried away. The telegraph line has also been destroyed. The railroad company, under the protection of the French forces, has rebuilt about 10 miles to the north of Paotingfu. The road to the south of Paotingfu as far as Tingchow, about 40 miles, was left undisturbed, as were also the station house, roundhouse, repairing shops, and a considerable quantity of rolling stock at Paotingfu. The telegraph line is also being rebuilt.

On October 15 the Peiho was reached. As this stream was not bridged, and was too deep to ford without great discomfort to the men, a pontoon bridge was constructed by the English sappers and miners, from boats furnished by the Chinese at Tienhsing. This work was accomplished between the hours of 3 p. m. of the 15th and 7 a. m. of the 16th, the troops starting to cross at the latter hour. This bridge was a complete failure. The crossing of the British infantry shook it up considerably, and it was necessary to repair it before other troops could follow. During the passage of the Germans, French, and Italians it was again badly racked, and when the light transport started over one boat sank, thus absolutely destroying its usefulness. A new bridge was immediately started, but no one waited for its construction, and it was not completed. The baggage train and rear guard forded the stream, which was 2 feet and 9 inches in depth. The failure of this bridge was due to the fact, in the first place, that it was badly located, both as regards the ford and the best locality for crossing, and also that valuable material at hand was not made use of. The river was poorly reconnoitered; just below the location of the pontoon bridge there was a small island which might have been utilized to great advantage. The bridge was just below the ford, and the crossing of the artillery and cavalry caused considerable wash, which was instrumental in displacing the boats. Considerable quantities of railroad rails and sleepers were at hand, and could have been used to good effect; and, in fact, upon our return it was found that the bridge had been removed to the island referred to, and that both rails and sleepers had been made use of in its construction.

Upon reaching the city of Paotingfu, it was found that a body of French soldiers, reported at 500, had arrived several days before and taken possession of the gates and walls, but

had not entered the city officially. The sentinels over the gates had orders to permit no one in the city, which orders were confirmed by General Gaselee, and strictly adhered to until after the conference had been held and proper arrangements made. On October 20 the commanding general and his staff, and the generals and staffs of each contingent, entered and rode through the city. At a conference on the same day it was decided to allow the troops, who had been quartered in the suburbs, to enter. On October 21 General Gaselee and staff moved into quarters inside the town. A proper police was established to preserve order, and the city was divided into four districts, each contingent being assigned one district with its gate. On October 22 and 23 the French, Germans, and Italians moved into the city, the English remaining in camp outside the walls, placing, however, a suitable guard in their section of the city. The country around Paotingfu was equally divided among the different forces for purposes of forage and supplies. On October 21 an international court of inquiry, composed of an officer from each contingent and Mr. Jamieson, of the British diplomatic corps, was ordered to meet and investigate the murder and outrages committed on the subjects of the several nations in the vicinity of Paotingfu. After a careful investigation of the facts, the court made the following recommendation: The commanding officer of the imperial troops at the time of the murders, to be beheaded; the fantai, or provincial treasurer, to be beheaded; the Paotingfu representative of the imperial government of Peking to be beheaded; the heitai, or provincial judge, to be degraded and deposed from office; the taitoi, a provincial official, to be sent to Tientsin for trial. The decision of the court was sent to Field Marshal Count von Waldersee for approval. In addition, as a punishment to the city for the atrocities committed in its midst, the Temple of the Tutelary God, and a temple of lesser note in which the missionaries were confined before being murdered, were blown up. Beside this, the destruction of the gate towers and the southeast corner of the city wall was ordered. The facts connected with the treatment and murder of the American missionaries have been fully described by Captain Hutcheson, Sixth United States Cavalry, and are fully concurred in; it is not considered necessary to repeat them herein.

* * * * *

The troops were returned to Peking by different routes. The order for the movement is given below. This order is quoted verbatim in order to show the form of English field orders, which throughout the expedition were concise and to the point. They follow to the letter in this regard a little pamphlet published by Major Trench, of the Royal Artillery:

PAOTINGFU FORCE ORDERS,
HEADQUARTERS, PAOTINGFU, CHINA,
3 p. m., 24/10/00,

1. In accordance with instructions received from his excellency, Count von Waldersee, Column B of the Paotingfu force will return to Peking in three columns as below detailed, to arrive at Peking on or about the 6th of November, 1900.

A. THE WESTERN COLUMN.—The troops at Ichou, under the command of Colonel von Norman, to reconnoiter westward to the Great Wall, returning thence along the foot of the hills to Peking.

B. CENTRAL COLUMN.—The remainder of the German-Italian troops, of Column B, under the command of Colonel Garioni, to march in the general direction of Yungcheng, Sincheng, Kuan, and Huangtsun to Peking; probable date of departure 28th October.

C. EASTERN COLUMN.—The remainder of the British contingent, Column B, less details mentioned below, under the command of Major General Richardson, to move in the general direction of Yungcheng, Paikoutien, Yungtsing, Langfang, and thence north to Peking; probable date of departure October 27th. Mule transportation only to be taken, if possible; all carts that can be spared are to proceed by the direct road through Chochou, with a small escort, for which purpose all weakly and footsore men and horses are to be detailed. Captain Douglass will command this convoy, and will withdraw with it all British force detachments on the line of communication south of Lukochow.

2. Major General Campbell will detail one field troop of cavalry under a British officer to accompany General von Gayle to Ichou on the 26th October, and return thence to Peking with the Ichou or western column, whence they will join the headquarters of their regiment.

3. Major General Campbell's brigade will return to Tientsin by a route to be hereafter published, leaving Paotingfu on or about 28th October.

4. Lieut. Gen. Sir A. Gaselee, with his personal escort, will leave Paotingfu for Peking by the direct route through Chochou on the 27th instant.

5. The following paragraph of Army Orders dated Tientsin, 8th October, is republished for the guidance of officers commanding column:

“4. In order to realize the resources of Paotingfu, and the villages on and in the lines of communication, for the supply of troops every act of violence against the peaceful inhabitants, and all unauthorized requisitions are to be avoided. On the other hand, as far as practicable, on each side of the line of march, the peaceful population is to be protected from oppression by Boxers, and as against the latter the severest measures are to be taken.”

By order:

(Signed) G. H. W. O'SULLIVAN,
Staff Officer, Paotingfu Expedition.

General Gaselee and his staff left Paotingfu on the morning of the 28th with a small escort, and arrived without incident at Lukochow at 1 p. m. on the 31st. As General Gaselee desired to remain all night in Lukochow, for private reasons, we obtained his permission to push on, and did so, arriving at Peking about 5 p. m., having covered the distance in four days.

The return march of the British Indian infantry escort could not help but attract attention; without any apparent effort they made from 23 to 25 miles per day by 4 or 5 o'clock in the afternoon and were all anxious to go on to Peking on the last night, instead of stopping at Lukochow.

The French soldiers, zouaves, and Chasseurs d'Afrique that were in Paotingfu upon our arrival, impressed one much better than the marine infantry, i. e., colonial troops, that marched with Column B. They were well-developed men, disciplined from long service, soldierly in their manner and appearance, and compared most favorably with any troops in Paotingfu. The French colonial troops were neither soldierly in their bearing or appearance, marched poorly, and seemed to be poorly disciplined.

The German troops throughout generally received favorable criticism. They were absolutely disciplined, and at all times displayed the most willing obedience to their officers. Their marching was almost perfect, though in a long and hard campaign, it is thought that their heavy equipments, heretofore mentioned, would prove very burdensome. Each man carried an intrenching tool of some description, a pick, ax, or spade, which was small and light, but apparently strong. This is considered to be an excellent idea when pack mules are not provided. In the English service the equipment of the men was exceedingly light; they carried, in addition to their arms, only a water bottle and a haversack, the remainder of their equipment, tentage, etc., being transported on pack mules, which followed just behind; thus the men were always able to make camp promptly, and prepare their meals in a brief time. In addition they had the advantage of being unincumbered while marching.

The English contingent throughout was thoroughly equipped with a signaling detachment, an engineering detachment, and sappers and miners. They made all the reconnaissances on the march, prepared a route map, gathered information, and

were directly responsible for the excellent manner in which the troops were marched and camped.

* * * * *

Very respectfully,

G. SOULARD TURNER,
First Lieutenant, Tenth Infantry, Aid-de-camp.

RECORD OF EVENTS WITH CURRENT COMMENT,
AUGUST TO NOVEMBER, 1900.

BY LIEUT. COL. J. T. DICKMAN, TWENTY-SIXTH INFANTRY, U. S. V.

PEKIN, CHINA, *November 5, 1900.*

ADJUTANT GENERAL CHINA RELIEF EXPEDITION,
Pekin, China.

SIR: In addition to my report on the organization, etc., of the forces of the allied powers in North China, I have the honor to submit certain observations, principally extracts from my diary, parts of which may be of interest and worth preserving.

Stationed at Pototan, Panay, P. I., and in command of the central district of the island, the telegraphic order from General Hughes "to pack my war bag and come as soon as practicable prepared to sail for Taku," reached me on July 24. On the 26th I arrived at Iloilo, 22 miles distant, and on the 28th sailed for Manila, via Romblon, on the Isla de Negros. Arrived on the 30th, and, after reporting at headquarters, sailed on the *Thomas* August 1 for Nagasaki, arriving August 6. Transferred immediately to the *Indiana*, but was obliged to wait six days for the Fifteenth Infantry; the delay, though annoying, was made use of in visiting points of interest. Finally sailed on August 13, and came to anchor off Taku late on the 16th. On the morning of the 17th we were informed that Peking had fallen three days before, and that, therefore, as far as participation in the campaign was concerned, the troops on board were practically out of it. Much regret was expressed, yet the importance of promptness was fully appreciated at the time, and more so afterwards.

The 17th, day and night, was spent in loading the lighter *Foochow*; we left at 6 a. m. of the 18th, and arrived at Tongku in a few hours. At Tientsin, where we arrived a few hours later, the pictures of desolation created by the

war confronted us, many ruined buildings, wrecked rolling stock, dead Chinamen floating in the river, etc. The next day was spent in collecting baggage, under the usual difficult conditions, and rearranging it for field purposes. On the morning of the 20th, in company with General Barry and aids, and Major Muir, Thirty-eighth Infantry, U. S. V., and Troops I, K, and L, Sixth Cavalry, we started for Peking, making Yangtsun, distance 19 miles, the same day. On the 21st we reached Matao, distance 37 miles; on the 22d Tungchao, 14 miles; and the 23d Peking, 13 miles, and to camp 4 miles farther. Total distance marched, 87 miles.

The railroad is double track, standard gauge, well ballasted, and solidly constructed throughout. At this time it was in operation as far as Tientsin, being managed by Russian officers and troops. The passenger cars, especially the toilet rooms, were extremely filthy. The destruction of the road from Tientsin on was most thorough. Both ties and rails had been removed and burned or thrown into the river. The bridges were destroyed or badly damaged.

As we left our anchorage the waters became of a lighter and lighter green; as we approached the earth forts of Taku we were floating in the yellow, muddy outflow of the Peiho or North River. As we proceeded up the tortuous course of the river, it was seen that the earthworks had suffered very little damage. The country is low, flat, partly covered with water, destitute of trees, and extremely monotonous in appearance. The mud houses along the stream and on the higher spots are scarcely perceptible in the landscape. In the winter this country must be the most desolate imaginable. The surface is dotted with numerous mounds which are graves, salt piles, or storehouses for ice or other supplies. Upon closer inspection we found the Chinese houses to be built of adobe or else of reeds plastered with mud. West of Tongku a few trees begin to make their appearance. The country is a vast plain of sandy soil, under water in places, and little suited to cultivation, as is shown by the thin crops. The conditions gradually improve as the distance from the seashore increases. At Yangtsun it is still flat and sandy, but the trees are more numerous and the soil is better, fair crops being raised. The Peiho at Yangtsun is a yellow, muddy stream, reminding one of our western rivers. It is about 50 yards wide, and at this time had a good current.

The mountains are dimly visible to the north and west. The soil is well cultivated and covered with crops of kaoling, millet, and maize, with some vegetables, such as beans, egg plant, and sweet potato. There are occasional sand dunes, especially near Matao. No sign of a road was discovered anywhere, nothing but cart trails. Large, wide dams were constructed to confine the floods of the Peiho. The tops of these dams became the road for the wagons and carts of the army, though never intended to be used as such, for at intervals there were piles of earth intended for repair of breaks in the dam. Near Pekin there are some stone roads, but they are so badly worn that now they are usually avoided. The country up to and surrounding Pekin is a wide, cultivated plain, with occasional groups of trees, of which most seem to have been planted. All the villages along the way have been utterly wrecked, looted, and destroyed. Tungchao got off easier than the other places, at least such was its condition as our column went through. The walls of Tungchao, which are about 30 feet high and 25 feet thick, are still in a pretty fair state of preservation, at least on the outer faces. The river here has dwindled to a small stream barely navigable for junks. On the water front there are considerable accumulations of logs which are floated down from the hills at the time of the floods. There is no lumber, the logs being sawed up by hand as the lumber is needed. The villages were all deserted. No attempt seems to have been made to bury the dead Chinamen, the hogs and dogs of the country being permitted to dispose of them. There are no buzzards or other birds of that kind in this country. The reason for this probably lies in the fact that there is usually nothing for them to eat. No domestic animals are allowed to die a natural death; if one should do so accidentally he would be utilized by the Chinamen anyway. All wild animals have been crowded out of this densely populated section. One of the principal annoyances attending military operations in this country lies in the scarcity of fuel, unless houses be torn down for the sake of firewood. There are no streams of good water, and the wells are probably more or less polluted with the filth of ages.

At Tongku we had our first view of the Cossacks, the nomads of the Steppe. Their horses were of all colors, scrubby, shaggy, and dirty, with stallions, mares, and even

colts among them. The men had no tents, but made shelters of pieces of canvas, sheets of corrugated iron, matting, or similar articles. They seemed heavy-set, husky fellows, perfectly at home in their squalor.

At Peitsang we found Company G of the Ninth Infantry and some Japanese troops. At Matao there were American, English, and German troops. At Tungchao, the head of the river navigation, all nations were represented. The crossings of the Peiho at Peitsang and Yangtsun were on floating bridges made of junks, which served the purpose fairly well.

At Hosiwu the British sappers were at work constructing field fortifications for the defense of the place; this on account of rumors that the Boxers were to attack the line of communications.

There was much indiscriminate shooting heard along the road, especially in the vicinity of the Russians and along the river. It was probably indulged in to some extent by soldiers of all nations shooting at dogs, chickens, etc., and was a source of annoyance for several weeks, not without danger. One of our lieutenants was hit in the hand by a stray bullet.

Irrigation is used to a limited extent by means of pumps worked by men or animals, the water being applied principally to vegetables. The sandy character of the soil and the fact that it has been cultivated for many centuries makes some kind of fertilizer necessary. In the use of all kinds of manure, both liquid and solid, the Chinese, as is well known, are experts. The soil is well plowed and the fields are kept remarkably clean of weeds. No machinery was seen in use. The cutting of kaoling and maize is done by means of a small scythe, the blade not more than 8 inches long, wielded by one hand, while the other gathers the stalks. As might have been expected from the nature of the Chinese, there is very little diversification of products. The kaoling, which resembles sorghum very much, is planted closely together in rows. It grows on long, slender stems, with comparatively few leaves, to a height of 15 feet. Mounted men are lost in a field of it as completely as if they were in a forest. Planting it so closely provides less grain; but that is not the only product. The long, straight stem is a very important building material; the stump, and even the roots, are used for fuel, so that in winter one of these fields is as clean as an Arizona desert in August.

Mountains are visible to the north and west of Pekin in successive ridges; the nearest foothills to the west are about 10 miles away. There are a few bits of rolling ground nearer to the city, but not of enough importance to affect the general landscape. In the country west of Pekin there are many minor ravines, principally sunken roads or trails worn down and washed out by centuries of use. These are serious obstacles for mounted troops across country. In some cases they are impassable even for infantry. There is a fine stone road of comparatively recent construction from Pekin northwest to the summer palace, a distance of about 7 miles, but it is the only bit of road to be found in this part of China. There are no special difficulties for military operations different from those of other inhabited countries of the temperate zone. Nearly all the country from Tientsin to Pekin and around the latter city is a vast field of waving grain, and is usually densely populated. The Peiho from Tientsin to Tungchao is practically a wide canal, and, in the absence of good roads and sufficient transportation on wheel or pack animals, has facilitated supply of the invading force to a great extent. With a sufficient supply of light-draft steam launches transport on that line would be an easy matter.

We found the headquarters of the American commander at the office of the American legation. The staff, Fourteenth Infantry, Sixth Cavalry, and Light Battery F, Fifth Artillery, were in the large compound known as the Temple of Agriculture, in the southern portion of the Chinese city. The British forces occupied another large inclosure east of ours known as the Temple of Heaven. A large part of the Chinese city was in ruins, the destruction being greatest in the vicinity of the Chienmen, in what is now the German section. Many of the streets were simply a succession of piles of brick and mortar, the wood still smoldering in some places. The stench from human and other carcasses, compost heaps, and green stagnant pools, and the clouds of dust consisting of dried excreta and other filth, made traveling through the streets about as disagreeable as could be imagined. Add to this the grotesque appearance of the Chinese shops still standing, with their strange lettering and gilded dragons; the massive walls and gates of the Tartar city; the numerous statues of dogs and dragons in stone or bronze, sometimes of colossal size; the many different kinds of soldiers, from the Mohammedan

of India with bare legs and brilliant turban to the heavy-booted Cossack from Siberia; and the filthy Chinaman with his pigtail and garlic breath pervading the whole, and you have a conglomerate impression never to be forgotten.

The city was divided into sections for guarding, police, and other purposes.

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Legation street extends from the Haitemen to the Chienmen, and is so called because most of the foreign legations have their compounds on this street. The lamp-posts were split and shivered by bullets; the walls are scarred in many places. The Hôtel de Pekin was barricaded, and all the rooms of the second floor had been repeatedly perforated by projectiles. All the houses west of the American legation were destroyed. Signs of very heavy rifle and artillery fire were plentifully in evidence. All this destruction was wrought by the Chinese in their efforts to burn out the people holding the legations.

On the day of our arrival we visited the Temple of Heaven. In the eastern part of this large compound there are two beautiful pagodas. The one farther to the north is decorated in blue, yellow, and gold; the other one has less brilliant colors. Both are artistic in design and in good condition, and probably the most attractive pieces of architecture to be found in Pekin. About 100 yards farther to the south there is a large circular platform in white marble; this is known to the Chinese as the center of the universe.

The feeling toward the Chinese was, of course, exceedingly bitter. It was generally accepted that the principal attacks had been made by imperial Chinese troops instigated by the empress dowager.

On the 24th of August we visited the Peitang (north cathedral), or French mission. In this inclosure, the walls of which are over a mile in length, 250 persons perished during the siege. The place was defended by 30 French and 10 Italian soldiers; of these 23 were for duty at the close. Rations were issued at the rate of 2 ounces per day. When relief came there were only 800 pounds of food left for 3,000 people. Two thousand four hundred shells were fired into the place. The south end of the church is marked by thousands of bullets. The east side is badly damaged by artillery fire. A sheet of zinc as large as an "A" target found in the defenses had 200 bullet holes in it. Four large mines were exploded. The

crater of one was 70 feet in diameter and 30 feet deep. Nothing can give a clearer idea of the cowardly nature of the Chinese than the fact that a handful of men was able to hold this large place against a numerous enemy armed with artillery in position on commanding walls.

The British legation also bore many marks of the siege. In the reception room the upper left-hand corner of the frame of the portrait of Queen Victoria had been carried away by a shell; the portrait itself was not damaged. General Barrow told me that at the recent siege of Kimberley, the Queen's portrait was damaged in an identical manner.

From the two fine pagodas on Coal Hill a good view is had of all Peking and the surrounding country, but especially of the Imperial Palace or Forbidden City. According to tradition this hill was once an enormous pile of coal collected by one of the emperors as a reserve. This is probably a myth, for no indications of coal have been found lately.

The roofs of all the buildings in the Forbidden City are covered with imperial yellow tile, and the corners and edges are roughed up with pottery dogs, dragons, and women mounted on roosters.

At a conference of ministers and commanding generals on the 25th of August at the Spanish legation, General Chaffee introduced the writer as his chief of staff. All the other generals were attended by the senior officers of their staff and by interpreters, when necessary.

The question of entering the Forbidden City was brought up and discussed. In the vote which was taken, Japan and the United States were against, all the others for the proposition. It was agreed to make the formal entry at 8 a. m. of Tuesday, August 28. No cavalry or artillery were to take part, mounted; the generals and their staffs were to ride horses, but no others. Troops to enter at south gate, and march through the north gate, and be dismissed. The question of the order of the march gave rise to a long discussion, the Japanese and Russian generals both claiming first place. General Linievitch proposed that the Japanese and Russians go in at the head, side by side. General Fukushima said he would leave the matter to the final decision of General Yamaguchi. The latter eventually sent word that the Russians could go first. As in all probability there would be few or no spectators, there was little reason for

insisting on the honors. The order of entry and the number of soldiers corresponding to each nation in the procession were then fixed as follows:

1. Russians	800
2. Japanese	800
3. English	400
4. American	400
5. French	400
6. German	250
7. Austrians	60
8. Italians	60

The French and German contingents were entirely out of proportion with the degree of their participation in the campaign, the French being very feebly, and the German not at all, represented in the attack on Peking. General Frey claimed he now had 8,000 troops in China.

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Among the numbers of dead animals along the road from Tientsin we saw no American horses or mules, which speaks well, not only for the better quality of our animals but also for their better treatment.

On this day, August 25, a soldier of the Fourteenth Infantry brought in an immense double-humped camel loaded with vegetables; it created a sensation in camp.

The Germans at this time claim to have 1,200 men, namely: One battalion of marine infantry, strength 1,000, and 200 sailors from the *Hansa*; 1,000 more are expected in a few days. Captain Pohl is the commander. General Fukushima stated that the Japanese now have 6,000 horses, 18,000 combatants, and 3,000 to 4,000 camp followers in China, and that they are placing a depot of six months' supplies in Tientsin.

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AUG. 27.—The chiefs of staff met at the marble bridge on the main road to the south gate and made the final arrangements for the placing of the troops preliminary to the procession.

AUG. 28.—General Linievitch and staff rode around and looked at the various troops, except the British, and received their salutes. The Russians took entire charge of the ceremony of formal entry into the Forbidden City. It passed off in accordance with previous arrangements, except that the

Austrians came last. The Russians had two bands of music. The conduct, appearance, and marching of their men were good. The Japanese moved off promptly in their turn. They presented a uniform, neat, and compact appearance, and marched with precision, using a sort of a subdued goose-step, similar to the German step, and permitting full swing of the arm. The British troops, preceded by bagpipes and drums, were a composite body, all arms being represented. The marching of the American troops was as good as any there. The men seemed to be taller and slighter of frame than the European troops. In this connection it is to be remembered that the Americans wore better fitting clothing and that, having just come up from a long period of service in the Tropics, their weight probably averaged 10 pounds below normal.

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All officers were obliged to dismount in order to go through the palaces. In one of the interior courts the Russian troops were drawn up and cheered the troops of the other nations as they passed by.

After the troops had been dismissed the officers in a body inspected a number of buildings, etc. These nearly all were very dirty and dilapidated, both inside and out. No Chinese were found inside the palace, except several hundred eunuchs, servants, etc. Though reluctant about opening temples, they were respectful and no shots were fired. The whole ceremony was over in an hour.

There were some massive bronze dogs, 8 feet high, and also some dragons, birds, and turtles in bronze. The carvings on the marble steps were very fine. There were also many excellent old cloisonnée objects in the temples and huge bronze vases on the outside. As a whole, the exhibition was exceedingly disappointing. The glories of the place have long ago departed, and the puny imbeciles of to-day do not even keep clean the massive works of art left by their ancestors. The filth and decay prevalent in the heart of the Sacred Palace are a fair index to the condition of the Celestial Empire.

The American uniforms were the only ones bare of decorations. The absence of an American band of music was noticed, for the other bands were not provided with any of our national airs to play as we marched past the Russians.

Three troops of the Sixth Cavalry scouted the imperial hunting park to the south of the city. Found Boxers near the southern border. Killed 30 and brought in some cattle. Burnt the villages from which shots were fired. No casualties on our side.

There seems to be no system of sewerage in Peking. It is said that formerly there was a good system in various parts of the city; at present there are some traces left. Most of the principal streets are high in the middle with wide and deep ditches on the sides. The ditches are often filled with foul water which from green has turned to black. There are no sidewalks anywhere. In rainy weather the streets not paved are almost impassable. It is said that it is not a rare case for men or animals to be drowned in the streets of Peking. One of our spring wagons almost disappeared from view in a mudhole on the west side of the Imperial City recently. All the houses are of a single story and are surrounded by brick walls built as far into the street as possible. Beside the great walls inclosing the Chinese City, the Tartar City, the Imperial City, and the Palace or Forbidden City, there are minor walls everywhere, every property being inclosed and forming what is called a compound. The doors on the streets follow the same general rule; there are no knobs, handles, or latches, and it is impossible to enter without the assistance of somebody on the inside. The roofs of the buildings are generally of tile, but no system of catching and preserving the rainfall was observed.

Lieutenant Colonel Shiba, the military governor of the Japanese section of the Tartar city, stated that all of Prince Tuan's property had been destroyed by the Japanese, but that the property of friendly or neutral princes would be protected. The Japanese provost guard consists of three battalions and two companies. The police of the Japanese section at this time is good. Chinese families are returning to their homes, good order prevails, and shops and markets are being opened.

At the Russian legation on August 31 there was an interview between Generals Chaffee and Linievitch. The latter was very cordial. The generals discussed the return of Prince Ching and the measures necessary to prevent conflict between his cavalry escort and our troops. General Chaffee stated that the government of the city of Tientsin, with a

Russian governor at its head, was asking for funds with which to meet current expenses, and had suggested the return of captured silver in order to apply it to that purpose. General Linievitch did not appear to be favorably impressed with the idea and stated that such procedure was quite contrary to Russian custom. The generals also discussed the question of feeding the people of Peking and the measures necessary to meet impending starvation. General Linievitch acquiesced in a general way, but did not manifest any anxiety concerning the prospect. General Chaffee stated that his troops had captured 250,000 pounds of rice in the imperial hunting park, and that he would have it brought in to feed the destitute.

The question of go-downs at Tongku, held and not used by the Russians but needed by our supply departments, was also brought up. General Chaffee promised to submit a more accurate description of their location in writing, so that General Linievitch could decide whether to turn them over to the Americans or not.

SEPT. 1.—Visited German headquarters and met General von Hoepfner, recently arrived. Subsequently visited Japanese headquarters, met Generals Yamaguchi and Fukushima, and obtained permission to visit the quarters of the Japanese troops. Accompanied by an aid, visited the Forty-first Infantry Regiment, stationed in the city, and was pleasantly entertained by the officers. Found the troops quartered in houses. Everything was cleaned up, lime scattered in many places. There are no bunks; the bedding is placed on low platforms or on the kongs or Chinese stoves. Left the city by the north gate and crossed the Anting Plain, which was used by the garrison as a drill ground. The Chinese barracks, nearly a mile north of the city wall, are occupied by the Japanese troops. The buildings are new and kept in good order. Supply depots and administrative offices have been established and the troops seemed as much at home as if they had been there for years. After a visit to the cavalry barracks, we asked to look at the horses and stables. For some reason or other we were shown very few horses. The commander reported 20 killed and 50 wounded in the campaign, and 10 per cent with sore backs; said nothing about the effect of heat and exhaustion. From other sources it was learned that only about 80 out of 300

came through in serviceable condition. The horses are small, but probably quite suitable for messenger service or even for mounted infantry. The shoeing seems to be conducted on incorrect principles. The blacksmith in my presence fitted a foot to the shoe by holding the hot shoe to the foot long enough to burn a flat surface. The horses are geldings raised in Japan. Some of the officers ride stallions, and it was observed that they make as much trouble as do the Filipino and Spanish stallions.

The artillery was found in a large place inclosed by walls. There was only one battery, the remainder having been sent toward Tientsin, so as to be nearer the base and therefore less difficult to supply. The commander of the Japanese artillery stated that on the day of the attack on Peking he had 55 guns on a front of 1,000 yards at a distance of about 1,000 yards from the east wall, the distance being subsequently diminished to 500 yards. Among the opposing guns there were four modern weapons.

On September 2 the Russian telegraph line was reported as having reached Peking, but it was not in working order, having been broken in several places. The Russians and Japanese had several hundred men working on their lines. Their work of construction and operating has not produced the results obtained by our Signal Corps with much inferior force. The decision was arrived at that from this date on only official telegrams would be handled as the office was overrun with business, urged by all the troops and the legations—not forgetting reporters.

Three troops of the Sixth Cavalry went on another expedition to the hunting park; killed two Boxers. Found that one-half of the rice discovered recently had already been removed. The remainder was destroyed to keep it from being used by the enemy.

An incident occurred to-day which shows the state of preparedness of European armies for each other and the watchfulness they exercise on each other's movements. General von Hoepfner, of the German army, speaking to Captain Sicre, the French chief of staff, asked whether the latter did not speak very good German. The French officer smiled and felt like evading the question, but finally replied in fluent German. The German officer was speaking French and the

French officer German, all a part of the general readiness for war.

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The relations between the Americans and the Japanese are very cordial. Not being able to speak a word of each other's language, the soldiers, nevertheless, have a password or greeting used by them exclusively.

It is hardly necessary to speak of the friendly feeling existing between officers and men of the English and the American forces.

At a conference of generals this afternoon General Linievitch, presiding officer, stated that Admiral Alexieff, in dispatches of the 20th, 24th, and 25th of August, had forwarded information coming from an official at Shanghai to the effect that two Chinese armies in Shantung, one of 5,000 and the other of 15,000, were marching on Tientsin in order to operate against our line of communications. No other generals had heard of these movements.

The Russian commander also had a report that the viceroy of Wuchau had sent 5,000 troops north in haste. The Russian general suggested that the English and Americans patrol to the south and southwest, the Russians to the northwest, and the Japanese north. General Frey of the French army offered to send a battalion half-way on a straight line to Matao. It was agreed that each general was to send out detachments to a distance of 10 to 12 miles in the portion of the country adjoining his section of the city.

General Linievitch also stated that he had recently received from Admiral Alexieff information that the Russian troops were to winter here in practically their present strength, in all about 15,000 men. The Germans stated that they hoped to have about the same number; the Japanese that they would have 22,000 between Tongku and Peking. General Linievitch further stated that he had no intention of forming an expedition to go to Paotingfu; that he had instructions to remain in Peking until further orders.

A committee of superior officers was agreed upon to determine what buildings may be used for officers and men and what should be reserved for Imperial use. General Chaffee suggested that the officers designated, or to be designated, meet to-morrow at 10 o'clock a. m. and proceed to business, which was agreed to.

SEPT. 3.—The committee on imperial buildings met at the Coal Hill gate of the Forbidden City. Then visited and inspected the palace of Tscheng-kwang-cheng, at the east end of marble bridge; the buildings at Chingchienshi, now occupied by French troops; the winter palace of the empress dowager, guarded by Russians; and the emperor's palace on the island. Also visited many other buildings around the ponds. There is a railroad track along the west shore of the ponds, and there are special cars, about the size of our antiquated horse cars, decorated and furnished in the imperial yellow. There were no locomotives; we were informed that motive power was furnished by coolies manning the yellow ropes still attached to the cars. How truly Chinese! The ponds are covered with a dense growth of water lilies, so that boats could scarcely leave the boathouse on the east shore.

SEPT. 5.—On the tower at the south gate of the Chinese city a British signal station has been established, a portion of the roof being removed in order to secure a platform. The party was at work with a heliograph endeavoring to communicate with outposts in the direction of Liukochao. In place of a shutter on a separate tripod the English use a key attached to the mirror, enabling them to remove the flash from the receiving station and bring it back by slight movements of the mirror. The apparatus did not seem to work well, it being necessary to adjust it frequently. The reason is, of course, simple enough. Without a heavy tripod and solid base for the instrument the movement of the key will soon destroy the adjustment.

Lieutenant Hyer, Sixth Cavalry, is reported to have struck several hundred Boxers about 20 miles from Peking. Killed 23 and captured flags and some property.

SEPT. 6.—The committee on buildings continued its labors and visited a number of temples in the northern and eastern parts of the city.

Mr. Webb C. Hayes arrived on this day, also General Wilson with his aids, Lieutenants Reeves and Turner.

SEPT. 7.—Report of committee on buildings drawn up by Major von Brixen, German army, approved and signed by all the members.

SEPT. 8.—Visited the Forbidden City as a member of Admiral Alexieff's party. All small articles had been removed since

previous visit. Chinese attendants were in uniform and more numerous. Also visited Twelfth Battery R. A. and the First Bengal Cavalry.

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SEPT. 11.—At the conference of this day General Linievitch related the incidents of an alleged fight between seven companies of infantry, 100 Cossacks, and one battery on one side and a force of Chinese on the other; and he thought that in future operations only considerable bodies should be sent out.

Word was sent by Prince Ching that there are still about 1,000,000 people in Peking. He asks for permission to bring in food and for guards to protect merchants and vendors. General Gaselee stated that there were many Chinese in all sections of the city except the Russian, where there were only dogs. It was agreed to by all that Prince Ching be requested to notify the Chinese people that they can come in to trade and will be protected; and that the generals promise to exert themselves to protect, in every way, the Chinese coming in with provisions from the country. Orders to be issued by the commanding generals that all detachments going out must be under officers, native officers, or noncommissioned officers; the latter to have an order in writing showing the nature of their duty. Orders also to be issued to stop indiscriminate firing, especially from junks.

The Russian general then stated that they had a fully equipped Red Cross hospital which was sent by the empress dowager of Russia, and that he offered the use of said hospital to all the generals for the reception and treatment of all severe cases which could not well be handled in ordinary field hospitals, the number of cases being limited only by the capacity of the hospital.

The announcement was then made that General Field Marshal Count von Waldersee, of the German army, was expected to arrive at Tientsin near the end of this month. The French, Japanese, and American generals stated that they had not received definite orders to place themselves under the field marshal's command.

General Chaffee then asked the opinion of the conference as to the number of troops that ought to be kept in Peking for the winter. The general opinion seemed to be that in case no hostile demonstrations occurred before the end of October

a reduction of the garrison to 10,000 men could safely be made. The Chinese were considered incapable of extensive field operations, especially at a time when there would be no crops on the ground. A verbal statement of the various commanders as to the number of troops actually in Peking or immediate vicinity brought out the following:

	Men.	Guns.
Russians -----	6,200	24
Japanese -----	10,000	24
English -----	3,000	8
Americans -----	2,500	6
Italians -----	3,000	-----
Germans -----	2,000	6
French -----	4,000	21
Total -----	30,700	89

This statement is believed to be unreliable, each representative being interested in magnifying his importance and weight by exaggerating the number of his troops. It was agreed that soldiers were not to be allowed to move about the city with arms, except when on duty; and they were not to go into other sections of the city without a pass.

SEPT. 13.—Starting at the South gate of the Chinese City, we rode on top of the wall west to the southwest corner, then north and east to the Tartar City. The Tartar wall is 15 to 20 feet higher than the Chinese wall, and there is no connection between them. Rode around the Tartar City to the Chiho gate. The southwest portion of the Chinese City is well cultivated, and the country outside of the wall, as far as we could see, seemed densely populated, large villages lying adjacent to the walls on the west, north, and east sides. The houses in the Tartar City are larger and cleaner than in the Chinese quarter. There are many shade trees, so that the general aspect of the city is that of a large park with many buildings in it. Although Peking is supposed to have a population of over 1,000,000 people in ordinary times, fully one-half of its inclosed area is not occupied by buildings. The top of the wall is everywhere practicable for carriages; with a little work, principally cleaning up, it could be made one of the finest drives in the world, the width being 40 to 50 feet between the crenelated facing wall rising 5 feet above the roadway.



MAP SHOWING ROUTE OF U. S. AND BRITISH
TROOPS OPERATING TO THE NORTHWEST
OF PEKIN, CHINA, SEPT. 16, 17, 18, 1900.

From Japanese Map Verified.

China Relief Expedition
U. S. Engineer Office, Sept. 1900

At this time the various gates were held by guards, as follows:

South gate of the palace by Americans; the other three gates by Japanese.

Nos. 49, 58, 59, 60 by British.

Nos. 61, 62, 48, 55 by Americans.

No. 56 by Germans.

No. 50 by French.

No. 51 by Italians.

Nos. 47, 57 by Russians

Nos. 43, 44, 45, 46 by Japanese.

No. 53 by British and Japanese.

The wall was not seriously damaged. The pieces of artillery and the smoothbore muskets 8 feet long and weighing 40 pounds (known as "jingals") were all of ancient pattern. The tower at the northwest corner was destroyed by fire. The débris was almost sufficient to form a ramp at the angles of the wall, thus rendering escalade an easy matter.

SEPT. 16.—Pursuant to letter of instructions from General Chaffee to General Wilson, dated Headquarters Chinese Relief Expedition, September 15, 1900, and to Special Orders No. 2, Headquarters First Brigade, Chinese Relief Expedition, two battalions of the Ninth United States Infantry, one battalion Fourteenth United States Infantry, and 25 troopers, Sixth Cavalry, left camp at about 3 p. m. to take part in an expedition against the Boxers, reported with headquarters at the Patachao temples, about 10 miles west of Peking. * * * The command left the city at the gate between the American and German sections and reached the end of the stone road, marked by arches, at 6.07 p. m.

The stone road is built of blocks of granite, 18 inches thick, 2 feet wide, and 4 to 8 feet long. The blocks are worn smooth and the road is full of holes. The coping has fallen away and many of the blocks have sunk below the general surface of the road, probably because proper foundation was never prepared. The road is very difficult in wet weather and bad for carts or wagons at any time. It is said that this road was traveled by Marco Polo in the thirteenth century, and that it is referred to in his writings. Our rate of marching was slow; we arrived at Liukochoa at 7.50 p. m., one hour after darkness had set in. The British contingent was already in quarters. Some preparations had been made for our arrival; vacant houses had been swept out and there was fuel for cooking. The arrival in camp at such a late hour was a

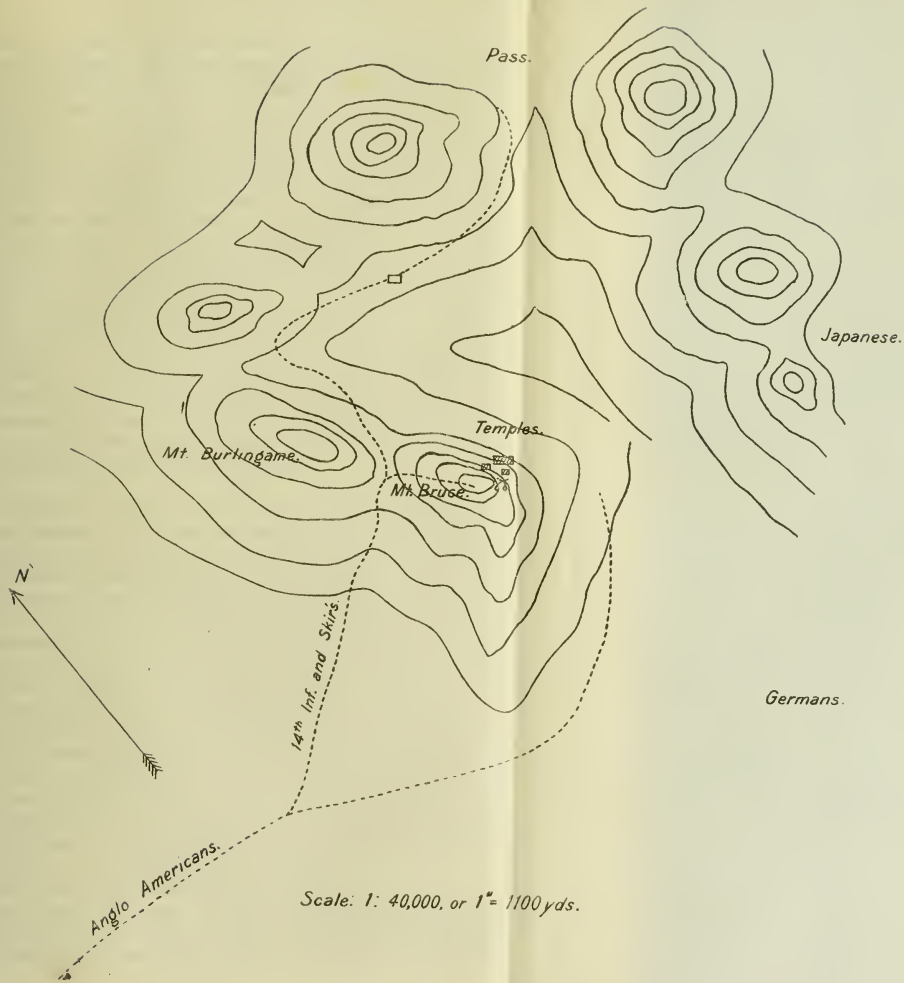
serious inconvenience; besides, there was neither forage nor water that night.

The Germans were to leave Peking at 5 a. m. next day with eight companies and six guns, covering the territory north of us and closing avenues of escape toward Peking. A Japanese force of one battalion was to leave the city by the northwest gate and, marching on roads north of the territory to be traversed by the Germans, was to occupy a ridge about a mile east of the objective at daylight of the 17th. The commanding officers and their adjutants assembled at General Wilson's headquarters at 8.30 p. m. and received the plans and orders for the morrow.

SEPT. 17.—Pursuant to Field Orders No. 1, Headquarters Anglo-American troops, the combined forces started at about 2 a. m., and after a short delay got straightened out on the road in the order specified. The course was northwest along the Hunho, and the rate of progress very slow, presumably on account of reconnoissance by the advance guard. Occasional shots were heard. These at the time were considered to be signal shots by the enemy, but it seems more probable that they were simply blank cartridges fired by the Chinese, according to their custom, for the purpose of scaring off thieves. There was a long delay soon after daylight to await reconnoissance of a village at the foot of the hills. The Sikhs and the Fourteenth Infantry battalion were then placed in the advance. The plan was for these advance troops to climb the hills (see sketch), thus turning the enemy's supposed position to the temples; the main body to pass along the foot of the hills to the east and advance directly up the valley; the Japanese to shut off escape to the east and the Germans to the south. The Fourteenth Infantry followed in rear of the Sikhs, but when half way up the hill passed them and reached the summit first. The writer with four rifles proceeded north to the pass about 1 mile distant to cut off escape of the refugees. Our advance up the hill had been observed, but no resistance was made although there was a fine opportunity to do so.

Firing by our troops commenced soon after arrival at the summit and was continued by them and the Sikhs for fifteen minutes, from the precipice overlooking the temples and adjacent buildings in the village below, but we neither saw nor heard a return fire. One company was sent down the hill to

SKETCH OF TEMPLE REGION.



enter the village and another (Captain Taylor's) followed us toward the pass. We saw some women and children and a few men, with bundles, making their way toward the hills, but no soldiers with guns. Our fire from the hill top was uncontrolled. I saw men against the sky line firing offhand at ranges of fully 1,000 yards. The fire discipline seemed to me to be of the poorest kind. Captain Murphy's company drove out some men who had taken refuge in the yards of the temples, and the casualties to the enemy were probably nearly all caused by this company. The result of the morning's work was ten dead Chinamen and occupation of the temples; no casualties of any kind on our side. However, there was ample evidence that the place had been used as headquarters by the Boxers. Two machine guns were well placed to sweep the entrance of the valley; in addition, about 10,000 cartridges, a quantity of powder, and a number of jingals were captured. The Japanese troops arrived at their position at the appointed hour; the Germans did not show up at all. It was a very large expedition to accomplish a small object, reports having greatly exaggerated the strength of the enemy.

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The name of this temple region is Ssupingtai, meaning the four terraces. It has been the custom of the Americans and English, residing in Pekin, to lease certain temples and their compounds, for occupancy, as a summer resort. The name of the white pagoda, a beautiful and conspicuous landmark which was blown up by the British after departure of the Americans, in revenge for the destruction of the English summer buildings by the Boxers, was Ling-kuang-ssu. Mr. Conger's temple was named San-shan-erh, the same as Tremont temple. Mr. Bainbridge's temple was named Ta-pai-ssu.

The Indian troops, in the turning force, were hill climbers, but they were easily passed by the Fourteenth Infantry in spite of the load carried by the latter. The Welsh Fusiliers, who had not climbed any hills, seemed to be pretty well fagged out.

A detachment of Bengal Lancers, accompanied by Lieutenant Ferguson, corps of engineers, was sent toward Sankiatien to destroy an arsenal located at that point.

SEPT. 18.—Lieutenant Ferguson returned at 7 a. m. Lancers occupied the town. Nothing was found in the arsenal. The machinery had been rendered useless by the Boxers by carrying off important parts. The place was destroyed.

Orders to return to Peking at 7.45 a. m.; arrived at city at 1 p. m.

On the 17th some powder scattered loosely on the ground in the temple yard occupied by our troops became ignited while our soldiers were cooking; four of them were badly singed.

SEPT. 19.—Captain Forsyth's squadron, Sixth Cavalry, returned from a trip toward the east, bringing back twelve Chinese Christians. The command found everything quiet, people at work. The troops were offered water and refreshments everywhere. There was nobody in danger. It appears the missionaries wanted to show the troops simply for future effect by impressing the natives with the power of the foreign devils, apparently at their disposal.

SEPT. 20.—Visit to the summer palace. The group of buildings and temples used as a summer residence by the Chinese emperors is situated on the north bank of a lake, partly, at least, artificial, located at the foot of the hills, about 7 miles northwest of Peking. Russian troops are in possession.

There are five steam launches and one imitation of a side-wheel steamer, in white marble, on the lake. The whole property is in a good state of preservation. The road is of heavy blocks of stone and in excellent condition.

There are other points of interest in the city well worth visiting. Such are the Observatory, the Llama and Confucius temples, the White Ming Pagoda, etc.

SEPT. 25.—The conference of generals called for this morning met at 9.40 a. m. The German forces being in the field, their representative was absent. General Linievitch announced that the works held by the Chinese at Lutai and Pehtan, and about the surrender of which pourparlers had taken place, were captured on the 20th and 21st of September by a force composed of French, German, and English troops, also that Mukden and Kirin had been taken by the Russians without resistance. He stated that there was no news of Boxers in the vicinity of Peking from Russian sources, but that the Japanese reported Boxers near the hunting park south of the city.

General Wilson inquired whether opposition to the Russian forces in Manchuria had ceased; to which General Linievitch replied that he had unofficial information that every point of importance in Manchuria was now probably occupied by

Russian troops. Railroad construction had been resumed at Harbin, the point of departure of branches, east into Russian territory, and south for Port Arthur, and that he considered north China pacified. Replying to inquiry of General Fukushima, he stated that he had no information concerning ninety battalions of Chinese troops reported to be marching to Mukden. The Japanese commander at Huansun, south of the hunting park, reported the presence of 2,000 Boxers about 10 kilometers farther to the south. An officer's patrol was attacked at a point 5 kilometers south of Huansun by 500 Boxers. This morning the Japanese sent out three companies and two mountain guns to complete the battalion at Huansun for operation against the Boxers. A German patrol was attacked farther to the east, south of the southeast corner of the park. The Germans sent out two battalions and a battery of six guns. The above-mentioned facts were communicated by General Fukushima. General Linievitch then stated that he had important news to communicate, namely, that he had orders to leave Peking with all his troops except one battalion of rifles and one company of sappers; that he would depart on the 27th and that the Russian minister would also leave somewhat later. Also that Li Hung Chang and Prince Ching have plenary powers to negotiate with the Russian representatives. Pourparlers would take place at Tientsin. General Wilson asked what effect the withdrawal of the Russian troops would have on the repair of the railroad. General Linievitch replied that it would continue; that good work was being done at the Yangtsun end, but that there was difficulty at the Peking end, owing to lack of supplies. That railway material was coming from Shanghai and Vladivostok and that the work would progress rapidly; that, however, it would be difficult to predict the date of conclusion of the work on account of the damaged condition of several large bridges. Upon inquiry the Russian general further stated that Colonel Tretsakoff, of the sappers, would be in command of the Russian forces, remaining near Peking. He also stated that all the allied powers had accepted in principle the idea of quitting Peking. Inquiry by General Wilson developed that this statement applied only to the legations, not to the troops. General Linievitch also stated that the Russian telegraph line would remain in operation and that it would be at the disposal of such generals as might find it necessary or

convenient to make use thereof. He announced that General Yamaguchi, of the Japanese army, being the next in rank, would replace him, and that inquiries in future should be addressed to the Japanese staff; and that the Russian forces remaining in Peking would number about 1,300 men. After conversation and discussion on these points the conference adjourned amid mutual expressions of appreciation and courtesy.

SEPT. 29.—Conference at 9 a. m., General Yamaguchi, Japanese army, presiding. The presiding officer brought up the question of a common cemetery for the deceased officers and soldiers of the allied powers. The British general stated that most of their troops were Mohammedans and that it was customary to cremate the bodies. The Japanese general stated that they followed the same custom. The French preferred their consecrated ground at the Peitang. The Americans stated that they already had a suitable place and expected eventually to remove the bodies to America. The Germans stated that they were arranging for a place just north of the Tartar wall and east of the Haitamen. This disposed of the question and it was dropped.

The question of the reception of Field Marshal Count von Waldersee then came up. It was agreed that one battalion was to be drawn up at the future residence of the Field Marshal; one squadron to meet him on the road; and the generals, each with two staff officers, to await him at the Haitamen. General von Hoepfner, of the German army, was to take charge of the arrangement of details.

The German supply departments have not been as efficient as was expected. German officers express a desire to purchase commissary stores, cigars, clothing, horses—in fact anything. French officers also try to buy cigars. Colonel Alexander and other British officers having heard that some American troops are about to be withdrawn, made inquiry whether some horses would not be sold instead of being shipped back to America. The impression seems to be abroad that the Americans will sell anything—a purely commercial people, of course—this the reward for the kindness of our Government in permitting the more destitute to purchase khaki and other clothing, cigars, etc., presumably at a profit, though admitted to be remarkably cheap. Such little incidents throw a side light on the character of the European,

who seems in many cases to be incapable of conceiving of truthfulness and unselfishness in others.

OCT. 3.—Review of American troops in the space between Temples of Heaven and Agriculture at 2 p. m. Troops present: Ninth Infantry, Fourteenth Infantry, marines, Light Battery F, of the Fifth Artillery, and third squadron of the Sixth Cavalry. Marching and appearance of the troops very creditable. Many of the foreign ministers and generals with their staff officers were present.

The British loss in an explosion of powder at Tungchao on September 16 was 36, including Captain Hill. The explosion was due to carelessness in setting off quantities of Chinese powder on the same spot.

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OCT. 5.—The work of cleaning up Legation street and repairing the walls was commenced. A Chinese banner is flying over the Russian legation. It indicates that the governor of the eastern part of the Tartar city has his office at this place.

OCT. 9.—Conference at 9 a. m. All the troops represented.

The first business was a statement by Sir Robert Hart to the effect that the Chinese fear a famine this winter; that food and coal will be very scarce. They therefore ask for protection against seizure of men, animals, provisions, and fuel by soldiers. Sir Robert Hart proposed to secure this protection by means of a license or pass in conjunction with an international flag or device. The licenses were to be issued by the four principal merchants or chiefs who had charge of this movement, and they were to keep a register of all licenses issued, the various commanders also to issue such licenses as they might deem desirable. The merchants on their part agreed to facilitate the furnishing of supplies to the military authorities and remove all difficulty on that score. Licenses and flags were to go together so as to prevent fraudulent use of the privilege.

General Chaffee asked how these passes were to be made intelligible to the sentinels of the various nations. In reply thereto, Sir Robert Hart stated that a word in each language would be sufficient to establish the authenticity of the papers. It was further proposed that on these licenses men, animals, and provisions were to be permitted to pass freely through the gates and in the various parts of the cities.

General Gaselee called attention to the fact that all the Powers had already bound themselves to prevent interference with trade and to stop unlawful seizures of all kinds. He therefore proposed that trade be perfectly free without passes of any kind.

Sir Robert Hart, continuing, stated that it was proposed to bring in food from the country and Tientsin and coal from the hills, and, that if his plan were adopted, he further suggested that suitable proclamations be issued and widely distributed with instructions to all Chinese to make their complaints at proper headquarters.

When it came to a vote on the proposition, the Russians stated that they were not interested, as their troops would all have left Peking in four or five days. The proposition failed to obtain a single affirmative vote.

After further discussion, during which it was stated by General von Hoepfner and others that enforcement of rules and regulations was a matter of military discipline under suitable orders of the commanding generals, the idea of issuing a proclamation to the Chinese, assuring them of protection in their commercial pursuits conducted on the same basis as before the siege be issued, and that the generals would issue orders to that effect, was adopted. It was agreed that all carts and other means of transport were to be examined when entering or passing out of the gates for arms and munitions of war, and that export of food and furniture was to be stopped.

Sir Robert Hart drew up a proclamation, subsequently to be translated into Chinese, which was adopted by the conference, and which Sir Robert Hart promised to have printed and distributed to the various headquarters. The principal objection to Sir Robert Hart's original plan, for which he submitted and read a set of regulations, was found in the fact that it placed restrictions on trade, because, if passes were required, then those without passes would by inference be engaged in traffic illegally and subject to interference. Moreover, the four merchants referred to would probably enjoy a monopoly and use the opportunity to exact money for passes to be issued by them or in other ways form a combination interfering with small dealers and their customers.

The question of reorganizing the police force of the city was then brought up, and General Chaffee proposed that a

chief of police be designated, and nominated Colonel Shiba of the Japanese army for that position. General Yamaguchi stated he desired to reflect on the question for a day or two, and the question was left for future discussion.

With reference to an international club for officers at the building east of the marble bridge across the pond, it was agreed that each general was to send a representative to form a committee of organization, the first meeting to be at the call of the Japanese commander. General von Hoepfner then made a statement that he desired to invest the arrival of General von Waldersee with more ceremony. He proposed to fire a salute with cannon from Haitamen, to drink a toast at the German legation, and to line the route to the general's headquarters with the troops of all nations. This was agreed to, the chiefs of staff to arrange details with General von Hoepfner.

About 3 p. m. a delegation of Chinese, dressed up in their best clothes, preceded by a band, appeared at headquarters and presented to General Chaffee two red silk umbrellas mounted on bamboo poles. The spokesman made a speech in very good English, eulogizing the Americans for their kindness and justice to all, and thanking the General and all the American officers for the protection the Chinese had enjoyed in the American quarter. He dwelt on the contrast between Americans and Europeans, saying that America appeared to the Chinese as a sort of heaven; that the Americans did not come here to seize territory, but to protect all the people, and that the Chinese were proud to be under the shelter of the American flag. He also remarked that if the civilized nations were to be judged by what had been seen here of the acts of European soldiers, then the Chinese must prefer to remain barbarians. The umbrellas, he said, had no intrinsic value, but were presented in accordance with Chinese custom to symbolize the gratitude and appreciation with which the Americans were regarded by the Chinese for their justice, kindness, and fair dealing. General Chaffee, in reply, thanked the speaker and his delegation for their present; stated that it would be taken to America and its significance explained; that the fact of presentation would be cabled to his Government, etc.

OCT 17.—Field Marshal Count von Waldersee entered the Tartar City at Haitemen at about 11.30 a. m. Cavalry escort

consisted of one platoon each of American, British, and Japanese troops. Salute of 19 guns from top of wall. The generals and staff officers joined his suite. The troops lined the streets (*Spalierbildung*) along the route, which was on Legation street to Chienmen; then north to south gate of Forbidden City; then west to winter palace. French, Germans, and Italians and the Japanese legation guard were east of canal bridge; the British troops occupied the remainder of Legation street; the Americans then reached to the southwest corner of the Forbidden City. The battalion of honor at the winter palace was composed of one company of American, English, German, Japanese, and Latin troops. The field marshal rode a horse and wore the uhlan uniform. The English troops were in full dress, the American in field dress. The troops, especially the English, looked well. At the winter palace the guard of honor executed a march past in column of fours. American, English, and Japanese companies did excellent marching. The Germans, who were all picked men, pounded the pavement with their hobnailed boots, executing an unusually high parade march. It is said to be excellent exercise. The French made a fair appearance.

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OCT. 20.—The American section is now, and has for a month past been crowded with Chinese. The German section just across the street is almost deserted, all the shops and marketing being on our side of the avenue. The Chinese say they are robbed by the German, and also, but to a less extent, by the French. The English quarters also are still comparatively vacant. The Americans are respected and well treated by all the foreigners and seem to be popular everywhere. The American section certainly is a picture of contentment, and swarms with Chinese, who do not feel safe until they have crossed our lines.

OCT. 21.—The Fourteenth Infantry left for Manila. An escort of two troops of cavalry and the light battery accompanied the regiment to outside of city wall. At the place where the attack on Peking began the regiment received the salute of the troops and the battery. General Chaffee (accompanied by his staff) addressed the officers and bade them farewell.

In the foregoing notes all matter likely to be reported in other papers has been omitted. A detailed account of the

conduct of the missionaries and of the troops with reference to acquisition of property was also omitted because probably already reported.

Very respectfully,

J. T. DICKMAN,

Lieutenant Colonel Twenty-sixth Infantry, U. S. V.

SUMMARY
OF
MILITARY OPERATIONS
IN
CHINA AND MANCHURIA.

(521)

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MILITARY OPERATIONS IN CHINA AND MANCHURIA.

The antforeign feeling of the Chinese became more intense after the seizure by Germany, in 1897, of Kiaochow and the subsequent enforced cessions made to England and Russia at Weihaiwei and Port Arthur. It helped the dowager empress to carry out her *coup d'état* in 1898, when she practically deposed the emperor Kwang Su, and from that time, fomented and encouraged by the ruling powers, it continued to increase until it culminated in the outbreak of 1900.

Boxers commenced to be heard of by Europeans in the latter part of 1899, and the progress of the movement was watched and noted by the diplomats in Peking, who did not at first realize its full significance. For an account of the origin and objects of the society see Lieutenant Lindsey's report, page 447.

In January, 1900, after the murder of Mr. Brooks, an English missionary, in Shantung province, all the ministers addressed letters to the Chinese Government, calling attention to the extreme gravity of the situation, and urging that steps be taken to suppress the society. New occasions, from time to time, brought forth additional letters from the ministers, separate, identic, and joint notes, the replies from the Tsung-li-Yamen being usually tardy, vague, and generally evasive and unsatisfactory. In March the American minister suggested the sending of a war ship into Chinese waters, but even at that time it was thought in the United States that it was desired more for moral effect than for active service.

Boxer outrages increased in numbers and occurred at many different points. Warnings and remonstrances addressed to the Chinese Government by the several ministers failed to make the Government exert itself to suppress them. The situation was dangerous and threatening, and about the latter part of May the different ministers called on their respective governments for guards to protect the legations, the Tsung-li-Yamen being notified that these guards had been summoned

and would arrive immediately. Those for the American legation consisted of a detachment of 48 marines, 3 blue jackets, 2 machinists, and a hospital apprentice, landed from the U. S. S. *Oregon* and *Newark* at Taku by Admiral Kempff. They left Tongku by boat on the morning of May 29, arriving in Tientsin about 11 p. m. Permission to travel over the railroad as an armed party had been refused by the viceroy, who would not accord it without the authority of the Tsung-li-Yamen. They were the first foreign troops to arrive in Tientsin, and were received with great enthusiasm by the foreign residents. The detachment remained in Tientsin till Thursday, May 31, waiting for the other legation guards, and for permission to go on to Peking, and all started at half past 4 in the afternoon by rail, reaching the railroad station outside the city about 11 at night. From there they marched to the city, the American detachment heading the column, through 4 miles of silent, densely packed throngs of natives, and our men took quarters adjoining the legation compound in rear of the Russian bank. The guards numbered 350 men, and were for the legations of Russia, France, Great Britain, Italy, Japan, and the United States. Their arrival was most reassuring to the foreigners, and had the effect of improving the situation in the city, though in the surrounding country the Boxers were still active. The German and Austrian guards arrived two days later, and two days after their arrival rail communication was suspended.

The situation outside Peking grew rapidly worse, so that by June 9 the ministers were convinced that serious danger was to be apprehended, and sent messages to the fleet at Taku asking for additional guards. These were to come as far as possible by rail and then march overland to Peking, but, though they started promptly, the relief party was unable to get through. The call for help had been delayed too long.

Events now followed each other rapidly. On June 12 occurred the murder of the chancellor of the Japanese legation by the soldiers of Tung Fuh Hsiang at the Yungting gate, and next day hordes of Boxers entered by the Hatamen gate and swept through the city, burning missions and killing and torturing native Christians. On the 19th the ministers were informed by the Tsung-li-Yamen that the threat to bombard the Taku forts was regarded as an act of

war, and that they must leave Peking within twenty-four hours. As a matter of fact, the bombardment had already taken place, and the forts had been captured. The ministers at once met and addressed a note to the Yamen protesting that the time was too short to get ready for such a move, inquiring what measures would be taken to insure their safety en route, specifying the least amount of land and water transportation that would be required, and insisting that they should be accompanied by some members of the Tsung-li-Yamen. For the purpose of adjusting and regulating these questions they demanded an audience of Princes Ching and Tuan on the following morning, and an immediate answer to their note. It was rather fortunate that the ministers found affairs in the city too much disturbed for them to visit the Yamen in a body on the following morning as they intended. Baron Ketteler, who went against the advice of his colleagues, was killed on the way, and it is more than probable that a similar fate would have befallen the others, had they started. On the same morning a note was received from the Yamen withdrawing the ultimatum of the day before, and stating that, as the country between Peking and Tientsin was overrun with brigands, it would not be safe for the ministers to go there, and they should therefore remain in Peking.

It had been decided by the foreigners, in case of attack, to hold all the legations as long as possible, falling back when necessary for united defense on the British legation, where a final stand would be made. The order to leave Peking and the murder of Baron Ketteler hurried matters, and before the time limit fixed by the Chinese had expired—4 p. m. June 20—all the women and children, foreign representatives, etc., had moved into the British legation. This turned out to be most fortunate. The rescinding of the ultimatum was intended by the Chinese to lull suspicion, and their treachery was plainly shown by the fact that, precisely at 4 o'clock fire was opened on the legations by Chinese soldiers who had been secretly stationed under cover at various vantage points, resulting in the death of one Frenchman and the wounding of an Austrian. The siege of Peking had begun. (See Lieutenant Lindsey's report, p. 451.)

THE SEYMOUR RELIEF EXPEDITION.

In pursuance of the determination of the United States to take adequate measures for the protection of American lives

and property endangered by the widespread disorders in the Chinese empire, Rear Admiral Kempff, commanding all United States war vessels north of Hongkong, arrived at Taku on the 28th of May. Other governments had taken similar action to protect their several interests, and by June 4 the international fleet off Taku numbered twenty-five war-ships, from which men were landed to be sent to Peking as guards for the different legations.

On June 3 Admiral Kempff landed 50 more men with the consent of the Chinese Government, and on the 5th 50 additional men were disembarked for the protection of Americans at both Peking and Tientsin. He then called on the home authorities for additional ships and men to meet the emergency.

By this time the Boxers were overrunning the country from Tientsin west to Paotingfu and thence northward to Peking and beyond. Murders and depredations were reported on every side. From Tientsin on June 5 came the news that the Boxers were closing in on that city, which was practically under arms, and that even larger bodies were moving from beyond Yangtsun to attack it. The Chinese army, under General Nieh, which was presumably opposing the Boxers, was beaten by them in one fight, and the soldiers said it was useless to fight Boxers as they could not be killed by bullets. On June 9 great alarm was felt by the foreigners, who expected an immediate attack, and on that day also came from Peking urgent messages from the ministers asking for assistance. The senior naval commanders at once made up a force of all available men from the various war ships, to start immediately for Peking under the command of Vice-Admiral E. H. Seymour.

The first train from Tongku had on board 300 British, 112 Americans, 40 Italians, and 25 Austrians. Starting about 6 o'clock on the morning of June 10 it reached Tientsin at 7.30 a. m., and left there two hours later, proceeding without opposition beyond Yangtsun, near which was a camp of 4,000 Chinese troops under General Nieh. At 3.30 p. m. it reached a point a few miles from Lofa, where it had to be stopped in order to make repairs to the railroad, and remained there over night. Here the expedition was joined by two more trains, increasing the total force to 1,798 officers and men, as follows: English 905, German 450, Russian 112, American

112, French 100, Japanese 54, Italian 40, Austrian 25. Early the next morning, June 11, the train pulled into the station, where the engines were watered, and were there joined by a fourth train, containing 200 Russians and 58 French, making the number 2,056. The trains proceeded a little before noon, leaving a guard at Lofa of an officer and 30 men, afterwards reinforced to 60, to protect the line. From Lofa the expedition advanced without special incident until it reached a point about 3 miles from Langfang, when the leading train was attacked by Boxers, who had first tried and failed to cut off an advanced party with repairing tools, and now advanced in skirmishing order to the attack. They were soon repulsed by rifle fire, leaving about 35 killed.

On the next day, June 12, as soon as the line was repaired, the trains moved forward, and arrived in Langfang. Here it was found that the line beyond was much damaged, the damage being recent, and evidently done by parties of Boxers who operated just ahead of the relief force. As some days would have to be spent at Langfang repairing bridges, etc., a party of 3 officers and 44 men was sent to Anting, about 13 miles beyond, to hold that station and prevent further injury to the road. The party reached Anting next morning and was subjected to repeated attacks, which were repulsed with heavy loss to the Boxers, estimated, with those previously killed, to be about 150. Its ammunition running low, the detachment wisely returned to the main body, which it rejoined in the afternoon of June 13. Another party of 60 men went out the same afternoon for the same purpose, but failed to accomplish the object of the trip and returned the next day, June 15, having killed about 25 Boxers without any casualties on their side.

At Langfang, in the forenoon of the 14th, the outposts ran in, closely followed by Boxers in great numbers, who made a most determined rush on the forepart of the train which was then drawn up alongside of a well. They came in loose formation, with the utmost courage, under a withering fire, some even reaching the train before being killed, and suffered a loss of about 100 before retreating. In this affair five of the Italian contingent were killed. They were on outpost near a deserted village which concealed the approach of the enemy until too late for them to escape.

In the afternoon a messenger reported an attack on Lofa station, and reenforcements were dispatched at once to assist the guard, but on arrival it was found that the worst of the attack was over. However, the reenforcements harassed the retreating Boxers, who left about 100 killed behind, besides losing two small cannon. Two English seamen were wounded in the skirmish, of whom one afterwards died.

The difficulties of the expedition increased. Repairs had to be made under the protection of strong guards, only to be again destroyed by the Boxers, both in front and behind them. On June 16 the road to Tientsin was found to be broken, and communication had been cut off since the 13th by the numerous bands who infested the country. The determined opposition the relief force met had so delayed its advance that provisions and ammunition were running low. It was believed they could not get by railroad any farther than Anting, whence they would have to march overland, which could not be done without some means of transport for supplies. They were cut off from their base and ignorant of what was happening there. Admiral Seymour had a few days before tried to send orders to Tientsin directing junks, provisions, and ammunition to be sent to Yangtsun, where the railroad crosses the river, for the purpose, if found desirable or necessary, of making it a base for a start by water to Tungchow, and thence marching to Peking, a distance of about 13 miles, but none of his messengers succeeded in getting through. On the morning of June 17 train No. 1 reached Yangtsun after much difficulty and delay, and the station was found to be entirely destroyed, and communication by rail with Tientsin impossible to restore with the means at hand. Messages were then sent back to Lofa and Langfang, recalling trains 2, 3, and 4, the advance by rail being found to be impracticable, and the isolation and separate destruction of the trains a possibility. In the afternoon of June 18, train No. 3 came back from Lofa, and later in the evening Nos. 2 and 4 from Langfang. The latter had been unexpectedly attacked about half past 2 in the afternoon of June 18, by a force estimated at 5,000 men, including cavalry, large numbers of whom were armed with magazine rifles of the latest pattern. Captured banners showed that they belonged to the army of General Tung Fu Hsiang, who commanded the Chinese troops in the hunting park outside Peking, showing that the Chinese

imperial troops were being employed to defeat the expedition. This army was composed of especially picked men, 10,000 strong, commanded from the palace. They were said to be well armed, but indifferently drilled. The attack was made in front, and on both flanks, but was repulsed with much loss to the assailants, who, however, when they saw our forces retiring toward the trains, rallied and again attacked. They were beaten off with even greater loss than before, and then finally retreated. The Chinese loss in this encounter was 400 killed; the allies had 6 killed and 48 wounded.

The allies were now reunited at Yangtsun, and, on June 19, the commanders of the different units held a conference, at which it was decided to abandon the trains, and withdraw to Tientsin, marching by the left (north) bank of the river. The American contingent, under the command of Captain McCalla, was given the advance. An attempt to establish friendly relations and procure supplies from the authorities of the town was unsuccessful, due to their fear of the vengeance of the Boxers, who were in force in the neighborhood.

Preparations for the retreat were quickly made, four junks that had been seized the day before being used to convey the wounded, and at 3 p. m. a start was made. After a short march, $2\frac{1}{2}$ miles, all bivouacked for the night. An early start was made next day, the 20th. Progress, regulated by the speed of the junks under the management of unskilled men, was necessarily slow, and was further obstructed by the continuous fighting to force a way through a succession of villages that had to be carried either by rifle fire or with the bayonet. The latter was most effective, the cheers of the men as they advanced seeming to intimidate the Chinese, who would fall back without waiting to receive the charge. About 8 miles was the distance accomplished in the day's march. The march was resumed June 21, at 7.30 a. m., the opposition offered by the enemy being still more obstinate on this day. Soon after the column had moved, a body of about 200 Chinese cavalry was seen in the distance to the left of the advance. At first they were thought to be Cossacks, but as they approached nearer to reconnoiter, they were seen to be Chinese. A few well-directed shrapnel from the 9-pounder made them withdraw to a distance, where they hovered for the remainder of the day, firing when opportunity offered. After the cavalry had been driven off, the

enemy opened fire with a field gun. This was repeated from time to time during the advance, but was each time checked by the 9-pounder of the allies whenever the position of the Chinese gun could be located. The advance continued through the villages along the river, and through the town of Peitsang, and was opposed at every step. At 6 p. m., the enemy being found to occupy a strong position from which he could not be dislodged during the remaining hours of daylight, a halt was called and further movements considered. The distance accomplished during the day was only 6 miles.

A night march was now resolved on, as offering the best chance to get through, and, after a few hours' rest, the column started about 1 o'clock in the morning (June 22). Resistance was encountered early in the march, but the troops struggled on, and at 4 a. m. arrived opposite the imperial armory near Hsiku on the right bank of the river, from which an unexpected heavy rifle and gun fire was opened on them. Luckily cover was at hand in a village near by, and behind the river bank, which was immediately taken advantage of, and when the rear column had come up, and the junks containing the wounded had been placed in the best possible position, an attack was made with rifle fire on the river front, killing some and driving others of the Chinese from their guns, while two parties were dispatched, one above and one below, crossing the river unobserved and carrying the armory by assault.

A determined attempt by the Chinese to retake the armory in the afternoon was defeated with heavy loss to them. The allies also suffered severely, among their killed being Commander Buchholtz, I. G. N., whose death was a blow, not only to the Germans, but to the whole force. The main body and the wounded crossed over in the afternoon, and occupied the armory.

The enemy again attacked unsuccessfully about 6 o'clock on the morning of June 23. In the armory were found a number of guns, about 15 tons of rice, and large quantities of ammunition and war material of the latest pattern. The situation of the allied forces was now much improved, though difficulties still confronted them. The necessity of carrying the wounded, now numbering 230, prevented them from forcing their way to Tientsin, as nearly the whole command would have to be used in the task, leaving very few available

for fighting. Repeated attempts to get news of their situation into Tientsin had been futile, owing to the country being so closely watched; but on the 23d a native courier managed to get through. He had been captured by Boxers and tied to a tree, but, having destroyed his message before being taken, nothing incriminating was found on him, and he was finally released, and managed with difficulty to get through the lines at Tientsin; he was the first one to get through. A Chinese soldier, wounded and captured by the allies while trying to enter the armory, said that General Nieh's army was much discouraged at their want of success, and that the attempts to retake the armory were made with twenty-five battalions, nominally of 500 men, but probably of not more than 300 or 400 each. While the armory was occupied, its guns, by an aggressive fire on a Boxer stronghold near by, and a fort lower down the river, kept the enemy from giving the allies much further trouble. Early on June 25 one of the guns of the Chinese fort was seen to be firing toward Tientsin, and, to create a diversion, two of the guns in the armory were trained on it, upon which the Chinese gun turned its fire on the armory. At 6 o'clock the relief column came in sight, and at 7 arrived outside the armory. It was commanded by the Russian colonel, Shirinsky, and was composed of forces of the various nations, Russians preponderating.

Preparations were soon made for the return of the combined force and for the destruction of the arsenal which contained about \$15,000,000 worth of war stores. The command crossed the river in the afternoon and bivouacked on the bank for the night, and the return march was commenced at 3 o'clock on the morning of the 26th, fires being lighted immediately after in five different places in the armory by two English naval officers who remained behind for the purpose, afterwards rejoining the main body. The dense volumes of smoke, and the occasional explosions seen and heard afterwards, gave assurance that the destruction must have been tolerably complete.

The whole command arrived at Tientsin, without further incident, about 9 a. m. The wounded were at once cared for, and the various detachments rejoined their own forces.

The expedition had failed of its main object, the rescue of the ministers in Peking; but it is likely that the severe losses

suffered by the Chinese in their repeated attacks must have impaired their morale by showing them that the Boxers were not invulnerable, and thus made easier the task of the larger and better equipped force that afterwards succeeded. The capture and destruction of the arsenal near Hsiku, with its immense stores of war material, were also some compensation for the danger and toil involved.

No reliable estimate of the number of the Chinese engaged in opposing the allied forces can be given. Admiral Seymour says the number increased gradually until the armory near Hsiku was reached, when General Nieh's troops and the Boxers both joined in the attack, but they must have outnumbered our force many times. The traditional courage and gallantry of the United States Marine Corps was exemplified in the conduct of the American force of marines under the command of Capt. B. H. McCalla, U. S. N., whose valuable services to the expedition received special praise and recognition from its commander.

Strength of expedition.

Nation.	Officers.	Men.	Guns.	In command.
Austrian -----	1	24		Lieutenant Prochaska.
British -----	62	*853	One 6-pounder Hotchkiss q. f.; three 9-pounder M. L.; two Maxim, caliber .45; six Nordenfeldt, caliber .45.	Vice Admiral Sir Edward H. Seymour, K. C. B.
French -----	7	151	One field gun -----	Captain de Moralles.
German -----	23	427	Two Maxims -----	Captain von Usedom.
Italian -----	2	36	One Maxim -----	Lieutenant Sirianni.
Japanese -----	1	52		Captain Mori.
Russian -----	7	305	One field gun -----	Commander Chagkin.
United States -----	6	106	One 3-pounder; one Colt automatic -----	Capt. B. H. McCalla.

* 640 seamen, 213 marines.

The losses were as follows:

	Killed.	Wounded.
British -----	27	97
German -----	12	62
Russians -----	10	27
Americans -----	4	25
French -----	1	10
Italians -----	5	3
Japanese -----	2	3
Austrians -----	1	1
Total -----	62	228

THE CAPTURE OF THE TAKU FORTS.

The departure of the relief expedition under Admiral Seymour on June 10 left Tientsin with but a small force for defense in case of attack. By the 13th instant the Boxers had possession of the native city and almost surrounded the place, cutting off all communication with the relief expedition, and threatening communication with the base at Taku.

Word was received on June 14, at Taku, from the consuls at Tientsin, that all the railway cars and rolling stock at Tongku were to be sent up the line for the purpose of sending a Chinese army to Tongku, and orders were at once given to the allied vessels in the Peiho to prevent any stock from being moved, and to oppose with force any movement of the kind taking place. By the evening of the next day, June 15, it was learned that the mouth of the river was being protected by electric mines, and that the forts were being provisioned and reenforced, whereupon, by agreement reached at a conference held on the following day, the naval commanders notified the viceroy of Chili at Tientsin that, in view of the danger to the allied forces marching to Peking, and to those at Tientsin, they (the commanders) would occupy the Taku forts, temporarily, at 2 a. m. on the 17th instant.

The time fixed by the allies for taking possession of the forts was 2 a. m., and it was arranged that, if not surrendered then, they would be bombarded at 4 a. m., but at 10 minutes of 1 on the morning of June 17 the Chinese anticipated the action of the allies by opening fire simultaneously from every gun in the forts that could be trained on the ships. This was said to have been done by the express direction of the dowager empress, the notice of the commanders being regarded by the Chinese Government as a declaration of war, and it being believed that the dismemberment of the empire had been resolved on by the powers. If fire was opened by direction of the empress, it shows that the Chinese had telegraphic communication with Peking after it had been closed to foreigners.

The dispositions for the attack had been agreed on, and the several vessels were in their assigned places when the forts opened fire, except the *Illis* and *Lion*. To enable these to take their stations with safety, the English torpedo boat destroyers *Fame* and *Whiting* were ordered to capture four

imperial Chinese destroyers, lying at the dockyard between Taku and Tongku. This was handsomely done, a few Chinese being killed and wounded on one of their destroyers, there being no casualties among the English.

The Taku forts are described by Lord Beresford as three forts of the Chinese type, armed with numerous cannon of different systems and calibers, poorly placed. The forts are built of soft coast mud that dries in time and is called in derision by Europeans "harveyized mud." It sometimes crumbles to pieces by the discharge of its own guns. This last does not agree with the statement of Admiral Kempff, who, in a report apropos of the bombardment, says that "the forts being of thick mud and grass adobe, were but little damaged by the gun fire, although they received a host of projectiles." They are known as the North, Northwest, and South Forts. The two former are on the north side and the latter on the south side of the entrance to the river.

The movements of the gunboats were directed by the Russian captain, Dobrovolsky, of the *Bohr*. Those joining in the attack were the *Koreetz*, *Guilak*, and *Bohr*, Russian; the *Iltis*, German; *Lion*, French; and the *Algerine*, British. The engines of the Japanese gunboat being disabled, she was moored near Tongku to protect the railroad station there.

The plans of the allies included a land attack, to be conducted by Commander Craddock, of the British navy. The forces engaged were as follows:

British: 23 officers and 298 men; Commander Craddock, H. M. S. *Alacrity*.

German: 3 officers and 130 men; Commander Pohl, H. I. M. S. *Hansa*.

Japanese: 4 officers and 240 men; Commander Hattori, I. J. S. *Kasagi*.

Russian: 2 officers and 157 men; Lieutenant Stankewitch.

Italian: 1 officer and 24 men; Lieut. J. Tanca, I. M. S. *Calabria*.

Austrian: 2 officers and 20 men; Lieut. Ernt. Tatni, of the *Zenta*.

A total of 904 officers and men.

The fire from the forts was quickly returned by the gunboats and continued all night, increasing in intensity at daylight, when it became most damaging to the Chinese. The British landing party was put ashore from the *Algerine* after the firing commenced, and joined the others who had marched from Tongku, at a rendezvous previously agreed on. It was arranged that, after an effective bombardment, the Northwest Fort should first be attacked, then the North Fort, and finally

the long string of works on the south bank of the river known as the South Fort.

The attack on the Northwest Fort was to be an assault at the west gate, after forcing or scaling which, an entrance to the inner fort was to be found and attacked. The first advance was made about 3 o'clock in the morning, but the line was halted when about 1,000 yards from the fort, and then retired a short distance to gain cover, pending further bombardment by the gunboats. But little damage had so far been done to the fort, all its guns were still in action, and the commanders agreed that an attack, if delivered then, would result in serious and unnecessary loss. Fire by the gunboats on the Northwest Fort had ceased, on the request of Commander Craddock, about the time preparations were being made for the first advance, but was kept up on the other forts. It was resumed on the Northwest Fort by the *Algerine* and *Iltis*, on the receipt of his second message to Commander Stewart of the *Algerine*, who passed it on to the other vessel by boat. This was about a quarter to 4, and being now daylight, the fire was more accurate and effective, so that about half past 4 the return fire of the heavy guns had been silenced, and preparations for the final attack were then made. When the line had previously retired, a British detachment had remained under cover of a small rise in the ground, about 300 yards to the front. They were joined, shortly before the advance, by the Russians, who took position on the left. The Italians were in loose formation on the right flank slightly in rear, the military road interfering somewhat with their getting into line. The other forces and the remainder of the British were in close support. All moved off briskly when the advance was ordered, and when the charge was sounded the Japanese marines, who were with the supports in column of route along the road, led by Captain Hattori, ran quickly to the front and raced abreast of the English across the intervening 300 yards to the west gate, all scaling the parapet together. Captain Hattori was the first man in and helped Commander Craddock up, being soon afterwards killed. The inner gate was forced by the rifle fire of the allies, which gave them complete possession. The other defenses of Taku were taken with little opposition. The Chinese left the Northwest Fort by a protected passage leading to the North Fort, which latter they abandoned without a fight; and the South Fort was captured two hours later, the garrison

fleeing after the magazine had been exploded by shells from the gunboats; they were not pursued. The casualties among the land forces included 1 warrant officer killed and 6 men wounded, of the British. The Japanese lost Captain Hattori and 2 men killed and 6 men wounded, of whom two died afterwards. The bodies of 450 Chinese were found in the Northwest Fort, and a prisoner stated that about 50 bodies had been thrown into the moat. Of the naval vessels the Russian *Guilak* suffered most, having 10 men killed, 2 officers and 47 men wounded; most of these casualties were caused by a shell penetrating one of her smaller magazines and exploding some charges in it. The vessel was disabled during the action by injuries to her machinery and was hulled several times. The *Illis* also suffered severely, having 8 men killed, and the Captain and 30 men were wounded. The manner in which this ship was fought was the admiration of the whole squadron, and unstinted praise for his conspicuous service was awarded to the commander in official reports of the British naval commanders.

The *Lion* had 1 man killed, and the *Koretz* had 2 officers and several men killed and wounded. The British loss was small.

After the operation all available men were landed from the fleet. The forts were occupied, and placed in as good a state of defense as possible, a night attack, or rush by great numbers of Boxers, being feared. The British garrisoned the Northwest Fort, the Japanese had the North Fort, the Russians and Germans jointly occupying the South Fort.

A series of old forts extend along the Peiho from the seacoast to Tientsin; there are seven all told, of which the most important is the Singchen, about 13 miles above Tongku, armed with large caliber modern guns. An expedition sent on June 26 found the fort abandoned, and returned after disabling the guns and destroying a large amount of ammunition. This was fortunate for the allies, as the fort commanded both the river and the Tientsin road, and, if properly manned and served, could have made the passage of the river extremely difficult to force.

Admiral Kempff being unwilling, in the absence of specific instructions, to engage in an act of war against China, the *Monocacy* took no active part in the bombardment, remaining moored at her berth near the railroad station, giving shelter

and protection to many foreigners during the night. Notwithstanding her inaction the vessel was fired at many times during the night, and was struck once by a Chinese shell, which damaged the vessel and two of her boats, but caused, luckily, no casualties. Commander Wise at first thought this might be due to wild shooting, but was later convinced that it was designed, and steamed out of range to a safe position a couple of miles up the river behind a bend. This was about 5 o'clock, and three-quarters of an hour later, the fire slackening and the Japanese flag being seen flying over one of the forts, he returned to his berth.

Much regret was felt and expressed in the United States that our forces had not joined in the attack on the forts. This feeling was shared by officers and men of the *Monocacy*, who would have rejoiced in being able to give "her ancient smooth bores a last chance."

The reduction of the forts was a necessary step to the safe progress of any international relief expedition, and was justified by subsequent events. Admiral Kempff no longer hesitated to join heartily with the allies in all the measures deemed necessary for the safety of the foreigners, representing to the home authorities that the Chinese Government was paralyzed and in sympathy with the Boxer outbreak; that the occupation of the forts was justified; that the firing by the Chinese on the *Monocacy* was an act of war, her pacific character being known, and that it was now necessary to join with the other powers for common defense and safety and for the honor of the country. His course was promptly approved by the Government, and he was directed to act concurrently with the other powers according to his best judgment.

Having secured their base at Taku, the most urgent task that faced the allies was to reopen the way to Tientsin and relieve the foreigners besieged in that city.

Maj. L. W. T. Waller, U. S. M. C., reached Taku on the day after the bombardment. He landed on the 19th instant, with 5 officers and 131 men of the Marine Corps, under orders to move forward with the first relief column. On the 20th he proceeded to Tongku and, assisted by Captain Wise, of the *Monocacy*, got a train together and proceeded up the railroad, taking a construction car with him. By hard work he managed to repair the road, and reached a point about 18 miles out, where he overtook a Russian party of 400 men.

The road here was impassable, and both parties bivouacked for the night, agreeing that the position should be held until reinforcements came up. Very early in the morning the Russian commander told Major Waller that he would push on and try to get into Tientsin to aid in its defense. This was against the judgment of the American commander, who thought the chances for pushing through the Chinese force, with only 530 men and no guns, were very slim, but deciding to make the attempt, the 3-inch rifle, which had proved defective, was disabled and rolled into the river, and the little party of Americans followed closely after the Russians on their march for the besieged city. A detachment of marines, commanded by Lieutenant Powell, with a Colt gun, was in the advance, which proceeded, without opposition until 7 a. m., to a point opposite the imperial arsenal, where the enemy opened a light flank fire, which was quickly silenced. A few minutes later they encountered a heavy front and flank fire from an intrenched force of from 1,500 to 2,000, that proved too strong for the small attacking force, and they were compelled to retire. The Colt gun was fought, under a fierce fire, until all but one of the detachment was killed, and, having jammed several times, was, after being disabled, abandoned by Lieutenant Powell. The allies retired, fighting for some distance, to a point 4 miles in rear of their bivouac of the night before. The marines succeeded in carrying off their wounded, but had to leave their dead behind. Their casualties were 4 killed and 9 wounded. The news of this affair received in the United States came in a dispatch from Admiral Kempff "that in ambush near Tientsin, on the 21st, 4 of Waller's command were killed and 7 wounded," and made a deep impression. They were the first losses of Americans in actual fighting known to have occurred, and the serious nature of the emergency began to be better understood. In his report Major Waller says nothing of an ambush, but the suddenness of fire from so large a force, and the abandonment of the dead and their only remaining gun, indicate conditions closely resembling a surprise.

The determined resistance to the advance of the allies showed that a much larger force would be required before it could be overcome; and this came in the afternoon, when bodies of Russians, English, and others arrived to reinforce them. The British had arrived at Taku on June 21, on the

Terrible, landing immediately and starting for the front a few hours later. Their progress had been delayed by the derailment and overturning of two of the leading trucks, and by the necessity for making repairs from time to time along the route. The force consisted of 7 officers and 327 men of the Royal Welsh Fusiliers and a naval brigade of about 150, commanded by Captain Craddock, in all between 500 and 600 men.

The next day, June 22, was occupied in clearing the line of communication of Boxers and in moving up and establishing a base of supplies at the end of the railroad, where they were joined by an additional body of Russian infantry and a field battery of 4 guns. The force now numbered about 2,500 men, of whom 1,500 were Russians and the rest British, German, Americans, Italians, and Japanese, of strength in the order given. The advance was again made on the 23rd, in two columns along the railroad, Russians on the right, British and Americans on the left, the Americans having the advance and the right of the firing line. The start was made at 4 o'clock, and at 7 o'clock the enemy was encountered about 6 miles from Tientsin and was at once attacked, the enemy returning a heavy fire. From this point the columns diverged, the Russians making the railway station their objective, the left column moving to attack the military school. The latter force fought its way for 5 miles, rushing many villages at the point of the bayonet. The military school was not strongly held, and the enemy was soon driven out, leaving about 25 killed and wounded behind. This school was the most threatening point to the settlements held by the enemy, and was taken about 1 p. m., the besieged pouring out of their intrenchments to greet their rescuers as they crossed the river. The right column had also been successful and occupied the railway station about the same time. The losses were: Russians, 4 killed, 30 wounded; Americans, 1 killed, 3 wounded; British, 1 killed, 3 wounded.

After a day of much-needed rest came the march on the 25th to rescue Admiral Seymour's force, and the return, without molestation on the 26th, of rescuers and rescued. The marines had 3 men wounded on the 25th instant.

While every one engaged in the defense and rescue of Tientsin did their full share of work and fighting, it is generally admitted that the Russians, who greatly outnumbered the other

nationalities, bore the brunt of both, and are entitled to most of the credit for its safety and rescue. The British commander, Bayley, testified cordially to this, and, writing a few days after the rescue from the scene, the correspondent of "The Times" says: "The foreigners of Tientsin declare that they owe their lives to the Russians, without whom the other small detachments would have been overwhelmed." He adds that "the small American contingents have everywhere distinguished themselves, and, by common consent, they are placed in the lead in every movement, with the British close beside them."

TIENTSIN.

Tientsin is situated at the junction of the Yunho (better known as the Grand Canal) and the Peiho rivers, 31 miles by rail and 51 by the river from Tongku, the distance to Peking by rail being $83\frac{3}{4}$ miles. It consists of the native walled city, and suburbs so extensive that it is difficult to tell exactly where the city begins or ends. The walled city is a square inclosure bounded by walls about 4,000 feet long on a side, running in the direction of the four cardinal points. The walls are about 25 feet high and 20 feet thick at the top, faced with the dark-gray brick of the country. They are very old, the earthen rampart and the interior revetment having in many places fallen down, especially along the south face. The population, reputed to be 1,000,000, is probably exaggerated.

The foreigners live in the three concessions (British, French, and German) that fringe the river below the city, covering an area of something less than 500 acres. These have been highly improved, and contain handsome municipal buildings, library, theater, hotels, churches, etc. An outer mud wall surrounds the concessions and the interior city. A race course located outside the mud wall, 2 or 3 miles southwest of the British concession, was the scene of several conflicts between the foreigners and the Chinese.

After the departure of the expedition commanded by Admiral Seymour, there remained in Tientsin a scanty garrison of less than 600 men to guard the city and to keep communications open. It was composed as follows: British, 243; Germans, 110; French, 50; Austrians, 50; Japanese, 50; Americans, 43; and Italians, 40. On June 11 the number was increased by the arrival of 150 English seamen and marines, and on the

13th came about 1,800 Russians, including some cavalry and field guns, making the total strength about 2,500 men.

The Boxers and their sympathizers took advantage of the weakness of the foreigners by obstructing the operations of forwarding supplies and reinforcements and keeping the line open to Admiral Seymour's party. This was done by large threatening mobs thronging the railway station and interfering with the operations, and, finally, tracks were torn up and bridges destroyed, so that by the 13th instant communication with the admiral was entirely cut off. The day after the expedition started from Tientsin the Chinese began to close their shops and leave the settlement, evidently anticipating trouble. The Boxers had entire control in the walled city by the 15th of June, and the European troops were kept busy guarding the settlement from the depredations of numerous roving bands of Boxers, now very active. The last armored train from Tientsin, with refugee women and children, got through to Tongku on the 16th. On the same day the Boxers made their first attack on the settlement, where they burned several houses before being driven off. They also attacked the railway station held by the Russians and, on the following day, other points on the railroad, all of which attacks were repelled without loss to the allies.

The bombardment of the Taku forts seemed to be the signal for fiercer attack and greater activity on the part of the Chinese. At 3 o'clock in the afternoon of June 17 the bombardment of Tientsin commenced, and shells began to fall in the foreign settlement. The military school on the river opposite the British concession was occupied by the Chinese, who had mounted some guns there, and this place was so close to the settlement and so threatening to its safety that the allies arranged an attack on it, which was successfully carried out. Only slight resistance was offered, the attack being unexpected. The buildings and guns were destroyed, but the position was afterwards reoccupied by the Chinese, and retaken on the 23d by the relieving allies. The British loss was 1 killed and 4 wounded.

The bombardment continued all night and the next day without intermission. On subsequent days there were occasional lulls. The cannonading was accompanied by attacks of the Chinese in great numbers on different points, more especially on the railway station, where, on the 18th and 19th,

the allied troops were hard pressed more than once. Tientsin was fighting for its life during the days from the 17th to the 23d of June, when the relief force pushed through to its rescue. On the 26th the numbers of the Europeans were increased by the return of the Seymour party, and fears for the safety of the garrison were now allayed. The hostile Chinese occupied the native walled city and contiguous towns and villages, showing much energy and resource in extending their lines in a semicircle from the northeast to the southwest, their right resting at first on the race course and their left on the Lutai Canal, threatening the European settlements from three sides. They had mounted guns at various points in the walled city along the railroad embankment northeast of the city. These caused considerable loss and annoyance to the allies, and many were so well masked that the allies had great trouble to locate them.

On June 24 the allied forces in Tientsin numbered 4,450; their strength was increased by the return of the Seymour expedition a couple of days later. Although apprehension of immediate danger had been relieved, the situation was still grave, the Chinese continued to threaten the settlements, and, regarding the return of the Seymour expedition as a defeat for the foreigners, the antiforeign feeling spread and emboldened the enemy in their attacks. Many of these came from the large arsenal about 2 miles east-northeast of the British concession, and the Russians, who were on that side of the river, were anxious to capture it. It was known as the Eastern Arsenal, and was the scene of the repulse of the American and Russian relieving column on the 22d instant, and of a previous attempt of the Russians to drive out the enemy. They now secured the cooperation of the Germans, British, and Americans, and early in the forenoon of June 27 commenced to bombard it. The Russians and Germans were to make the main attack, while the British and Americans (600 strong) were to act as supports or reserves; but the latter, as soon as they arrived on the ground, went into action, marching parallel to the left face of the arsenal, under a flanking fire, until they reached a point where they could turn and face the arsenal, then advancing under a harassing shrapnel fire to within 250 yards, when bayonets were fixed and a charge ordered that drove the Chinese out. The Russians and Germans were likewise successful in their attack on the

center and right face of the arsenal, and, the affair having terminated successfully, the British and Americans withdrew, and the arsenal was destroyed. The Russians lost 1 officer (a doctor) and 6 men killed and 42 men wounded; the British 7 killed and 21 wounded. The Russian commander, General Stössel, gives high praise to the conduct of the Germans in the fighting, commending their gallantry, discipline, and professional knowledge. The American contingent consisted of Second Lieut. W. E. Jolly and 40 men of the Marine Corps, accompanied by Lieut. A. E. Harding, who went along as a volunteer. In the attack our men charged over the parapet with a British company, being the first in this part of the fight, Lieutenant Harding capturing an imperial flag. The men were part of Major Waller's party. They had marched 97 miles in five days, fighting all the way, and had lived on one meal a day for six days, always cheerful and willing.

After the destruction of the arsenal the shelling of the settlement ceased for a while, though sniping was still carried on, causing a few casualties among outlying pickets. Reinforcements continued to arrive, and the position of the allies was daily strengthened by the arrival of fresh troops. Eight hundred Japanese reached the scene on the 29th of June, making the allied strength about 8,300, of which 1,200 were Japanese. Communication with Taku was had by river, which was open all the way, while the railroad could be used within 12 miles of the town. The allies for several days undertook no further active movements, pending the arrival of further reinforcements, until July 1, when a reconnoissance was made by a combined force of Americans, British, Russians, and Japanese, about 1,200 strong, toward the native city, which developed resistance from a number of small parties of the enemy who were, however, easily dislodged. On the 3d another reconnoissance, conducted by the Russians on the left side of the river, resulted in driving the Chinese from a new position they had taken up to the east, threatening the railroad station. It, however, required the assistance of some Japanese troops, and the help of the British 12-pounder before it was successful.

The Chinese, on June 28, flooded a part of the country, near the western quarter of the native city, by cutting the canal, but the allies were not inconvenienced, if that were

the intention, as the part flooded was of small area and near the city.

On July 2 a detachment of French marines arrived, 340 strong, with 6 mountain guns. On July 4, about 5 o'clock in the morning, the Chinese opened fire from several guns mounted near the railway bridge over a canal, and, later, large bodies of troops were seen moving beyond the Western Arsenal, but, on being shelled, they withdrew and kept out of range. About 4 o'clock in the afternoon a most determined attack was made on the railroad station by large numbers of Chinese, but it was repulsed. It is said that the allies were much aided in their defense by a timely severe thunderstorm and a heavy fall of rain, which dampened the ardor of the attacking force that was pressing the allies very hard when the storm broke. The 5th was quiet except for an attack by the Russians on the Chinese guns to the north of their camp, under cover of which they succeeded in moving two locomotives and three trucks from the exposed station to the protection of their own camp. On the 6th the Chinese commenced firing from some guns they had succeeded in planting and masking about 1,000 yards from the station. The attempt of our guns to silence them resulted in a general bombardment. Two naval 12-pounders from the *Terrible* and two 9-pounder Krupps, from the Taku forts, arrived on July 4. These, with the 12-pounders already possessed by the allies, were mounted on the mud wall, and replied to the enemy's fire, but had great difficulty in locating the Chinese guns, which were in position among ruined houses where the flash could hardly be seen. The French and Japanese field batteries joined in the firing, with the result that the guns in the Chinese fort were silenced for a time. The French set fire to the viceroy's yamen, the Japanese shelling the arsenal and preventing the guns mounted there from firing at the 12-pounders while engaged with the forts in the city. An attempt by Major Bruce of the First Chinese Regiment (English), to capture a small quick-firing gun that had been pushed up to within short range of the settlement, and whose position had been discovered, was unsuccessful, and the party was obliged to retire with a loss of 2 killed and 5 wounded, the commander (Bruce) and Ensign Esdaile being among the wounded. The latter was severely wounded and died July 7. The Chinese fire was promptly resumed on the 7th, and at

noon the allies again bombarded as before, while a Japanese cavalry reconnoissance was made to the southwest, towards the race course, which at once drew a heavy rifle fire from that direction, confirming the suspicion that the enemy was endeavoring to work around to the south from the native city, threatening the allies' communications. During the night the grand stand and buildings were set on fire by the enemy and consumed. The next day the allies arranged for a combined movement to drive the enemy from his position in a village near the race course and to capture the Western Arsenal. The force was composed of Japanese, 1,000; British, 850; Russians, 400; Americans, 150; and moved out before daylight on the 9th, through the Taku gate, then turning to the right (west) the Japanese and British artillery soon engaged the enemy, while the Japanese cavalry on the left came upon a body of Boxers, whom they charged and dispersed, killing about 200 of them. The infantry meanwhile had taken some earthworks, where they captured four small Krupp guns and a few rifles, then, turning to the north, continued to advance, the Chinese retiring precipitately toward the Western Arsenal (the Hai-Kwang-Sze, or Joss House Arsenal). By the time the force reached the arsenal from the south another detachment of Japanese and Americans had arrived, having marched along Sankolins Wall from the settlement, and the combined force attacked the arsenal, which, after a short bombardment, was rushed and taken by the Americans and Japanese. The Japanese now advanced beyond the arsenal toward the south wall of the city, but the Chinese were collected here in force, and the heavy artillery and rifle fire made it inadvisable to persist. The country to the west having been flooded by the enemy, it was impracticable to operate in that direction, so, after burning the arsenal, which was untenable by the allies, the expedition returned. During the action the British and French concessions were heavily shelled by the Chinese, from the north-eastern batteries, without suffering much damage.

The day's operations were conducted by the Japanese general, Fukushima. The Japanese composed the largest fraction of the troops engaged, and did most of the fighting. The mobility of their infantry and the dash and vigor of their cavalry were shown in the fighting, and are attested by their casualties, amounting to about 50 killed and wounded. The

British had 1 killed and 3 wounded; the Russians and Americans had no casualties. The Chinese lost between 300 and 400 in killed.

It was hoped that the success of the allies' attack would make the enemy withdraw into the walled city; it did relieve the pressure of the allies' left by freeing the batteries in the British concession from the direct and enfilade fire, to which they had been exposed from the Western Arsenal, and by diminishing the number of guns bombarding the settlement, but the moral effect on the Chinese was not lasting, and the enemy retained enterprise enough to make a very determined attack on the railroad station in strong-force. The station had been held by the Russians from June 19 to July 4, when they withdrew, and afterwards the position was held in turn by detachments of the allies. On July 11 there were 100 men each of the British, French, and Japanese contingents. The attack commenced about 3 o'clock in the morning, by about 2,000 Chinese troops and Boxers, on the Russian advanced posts, and was pushed so vigorously that many of the enemy got in among the tracks near the station. Half a Russian company was surrounded and had to fight its way through with fixed bayonets. The fighting lasted about three hours and was very stubborn, but eventually the enemy was driven off with heavy loss, estimated at from 350 to 500 killed. The allies had about 150 casualties, mostly among the French and Japanese; the Russian loss being 4 killed and 1 officer and 18 men wounded; the British 3 killed and 16 wounded. About noon the allies again bombarded the forts in the native city, and succeeded in demolishing a pagoda near the fort in the city, which was used as a look-out place; the return fire was vigorous, but did no damage. Besides the operations mentioned, there were frequent attacks by small parties of the enemy; almost continual sniping from nearby cover, and every day, for some hours, a shelling of the settlements, the periodic outbursts followed by corresponding lulls. They usually commenced before daylight, ceasing before noon, and beginning again late in the afternoon.

One of the industries of Tientsin is the manufacture of coarse salt by the evaporation of sea water. The product is stacked along the river bank covered by matting, under which

snipers found concealment, and, using smokeless powder, it was hard to discover them.

The most difficult positions the allies had to defend were the railway station and the French concession. The station had been held by the Russians from June 19 to July 4, when it was garrisoned by a mixed force of British, French and Japanese seamen or marines, 100 or more, as their commanders felt able to furnish them, each nation having also a reserve for their own men. The station was one of the main points of attack, the enemy desiring to destroy the rolling stock, and to secure an advantageous position from which to bombard the settlements. The French concession was the one nearest to the Chinese city, and in consequence suffered the most.

At this time the Russians occupied the Eastern Arsenal and their camp on the left bank of the Peiho, south of the railway station. The other nationalities were located on the right bank of the river, mainly in their respective settlements, but varying their dispositions as necessity required, all responding promptly and cheerfully to calls for cooperation and assistance among themselves. The Germans were in the university grounds at the extreme southeast end of their concession; their main object was to keep the Peiho open for communication with Taku. This they accomplished without difficulty, there being no interruption in forwarding supplies to the full capacity of the lighter accommodations.

The strength of the allied forces in Tientsin on July 11 was as follows: Russians, 4,450; Japanese, 3,090; French, 2,160; British, 1,420; American, 560; Germans, 400; Austrians, 50; Italians, 40; total, 12,170. The strength of the enemy can not be positively stated, but was thought by Admiral Seymour to be not less than 20,000, counting Boxers and regular Chinese soldiers. It included the troops of General Nieh's army that had originally pretended to oppose the Boxers, but soon threw off the mask and openly opposed the allies in the Seymour expedition. This army contained about 13,000 men, some of whom had been drilled by German officers and later by Russian officers. They were well armed with Mauser rifles, provided with artillery of mixed caliber and Maxims, but were poorly disciplined. General Nieh was reported as having either been killed in the attack by the allies on July 9 or having committed suicide on account of the Chinese reverses.

The Chinese army, threatening the allies and opposing their advance to Peking, was superior in fighting qualities to any previously known to Europeans. In addition to the modern weapons and the training received from their foes, the Chinese were inspired by hatred of foreigners and religious fanaticism to an intrepidity foreign to their ordinary habits, as shown by their repeated fierce attacks and stubborn resistance when themselves attacked. They had ample supplies of all kinds of modern warlike stores, the extent of their preparations being shown by the immense quantities that were found and destroyed by Admiral Seymour at Hsiku and by the allies in the arsenal near Tientsin, of the value of many million dollars.

The heavy artillery at the disposal of the allies was markedly inadequate, and was much inferior to that of the Chinese, which seemed to increase daily in weight, and was worked with remarkable efficiency. It was believed by many that the positions of the allied troops from time to time were signaled, or in some way made known to the Chinese, by spies inside the lines, and that the Chinese had the assistance of Europeans in the working of their guns; this last on the authority of skilled observers, who claimed to have themselves seen it.

The allies labored under the disadvantage of being a polyglot army with different systems of supply and drill, and without a single controlling head or a definite plan of operations. In arranging movements requiring the cooperation of several contingents, messages had to pass between the various commanders suggesting plans that might or might not be agreed to.

They had so far been obliged to confine their operations to those necessary for holding their position and keeping their communications intact, but the daily losses from the enemy's bombardment, and the opportune arrival of reinforcements of Japanese and Americans on the evening of the 11th, hastened the adoption of plans to capture the city and drive the Chinese away.

Up to the middle of June the United States had hoped to be able to do all that was necessary for the protection of the lives and property of its citizens in China by means of its naval forces; but the situation at that time became so grave that

the sending of troops was reluctantly decided on, and instructions were sent to the military commander in the Philippines to designate the organizations available for this service. Of these the first to receive marching orders was the Ninth Infantry. A severe storm that damaged the railroad and prevented it from reaching Manila delayed its departure until June 27, when the regiment sailed on the transports *Logan* and *Port Albert*, with a total strength of 39 officers and 1,271 men, commanded by Col. E. H. Liscum, a veteran of the civil and Spanish wars, in both of which he had been severely wounded. Two battalions of the regiment arrived at Taku on Saturday, the 7th of July, were lightered ashore on the 10th, and towed up the river the next day, reaching Tientsin in the evening, preceding by a few hours a battalion of marines under Colonel Meade, who had left Taku at 8 o'clock in the morning and arrived at Tientsin after midnight. The third battalion of the Ninth reached the scene of operations in time to take part in the fighting of the 13th instant. The theory adopted by our Government, that the Chinese troubles were due to the excesses of irresponsible persons who could not be controlled by the Chinese authorities, was adhered to in Colonel Liscum's orders to proceed to Peking via Taku and Tientsin, report to the American Minister there, and cooperate with him in establishing order. General Fukushima, with a body of Japanese troops, also arrived at the same time as our forces, and Admiral Seymour, who had been the senior officer in rank, returned with his staff to his flagship off Taku bar, and the officers and men of the *Centurion* who had been with him on the relief expedition were sent back to their ship.

Admiral Seymour having returned to his post at Taku, the conduct of military operations was now assumed by General Fukushima as ranking officer of the allied forces present in Tientsin. The arrival of the Ninth Infantry and our marines, together with a substantial reenforcement of Japanese troops, had so augmented the strength of the allied forces that on July 11 an attack on the whole Chinese position was projected, with the object of capturing the city and driving the enemy from all their strongholds. As finally arranged, the plan was that the Russians and Germans were to attack the enemy's positions to the northeast of the city, while the Japanese, British, French, and Americans were to move against the native city from the southwest. For this latter movement it

was decided that the allies would be in line at 3 a. m. and march in three columns, 500 yards apart, on the Western Arsenal; the French, 900 strong, on the right, to move to their position by crossing the mud wall in the extra British concession; the center column, consisting of the Japanese, 1,500 strong, to go by the way of the race-course gate; the left column, composed of six companies of the Ninth Infantry, a detachment of United States marines, in all about 900 men, and the British force of 800 men (500 military, 300 naval), marched out by the Taku gate. To the left of the left column was a body of about 150 Japanese cavalry.

The arsenal, which had been reoccupied by the Chinese after the action of the 9th instant, was cleared of the enemy by the Japanese, who were first on the ground, the left column being detained by the necessity of clearing out small parties of the enemy from villages during its advance, and the French having suffered a check at a bridge in the mud wall, which they had to cross while exposed to fire. The allies now disposed themselves along the mud wall, the Ninth Infantry and the marines, with the British, being to the west of the arsenal. The combined artillery formed up a short distance south of the wall and bombarded the city about 5.30 a. m. After a bombardment of about an hour it was decided to attack, French occupying the right; Japanese, center; Americans and English on the left; the objective being the south gate. The attack was begun by the Japanese, and their eagerness to advance necessitated a hurried movement, under heavy fire, by the marines and the English fusiliers to get into position on the left of the Japanese. For the purpose of further support to the Japanese left, and also to support the attack of the marines and fusiliers, the Ninth Infantry was selected. In the hurry and excitement of the occasion the order for this movement was either not correctly given, or was misunderstood by Colonel Liscum, who led the regiment to the right after passing through the gate in the mud wall. They were immediately under a heavy and destructive fire from the fort and wall, and from a line of loopholed mud houses on their right front near the city wall, toward which the regiment deployed hastily and advanced by a series of rushes, finally reaching the canal outside the city wall where they were compelled to halt, securing such cover as was practicable. While crossing one of the numerous dikes the color

bearer was hit, and picking up the colors, Colonel Liscum stood, apparently looking for a ford or some way of crossing, when he was shot in the abdomen and fell mortally wounded. The position occupied by the regiment was a most difficult one. While somewhat sheltered from fire from the south wall, the regiment was exposed to fire from hidden snipers. The distance from two Chinese guns across the canal was only about 75 yards, and they were also under a deadly fusillade from the German flour-mill about 300 yards to the right front, where the enemy was strongly intrenched. By sunset the regiment had lost heavily in killed and wounded; Colonel Liscum and 22 men killed, 3 officers and 70 men wounded. It was said that the dark-blue shirts worn by the men of the Ninth offered a conspicuous target for the Chinese rifles.

The country around Tientsin to the west is described as a waste of marshes with lagoons and wandering rivers. The Changho, the Hunho, and smaller streams join the Peiho somewhere in this mesh, but are very much confused. About the city to the north are rice fields and gardens and beyond these are the marshes, across which the railway is built on an embankment made of bamboos driven in the earth, the space between the rows being filled in. Colonel Meade says the marines crossed the wall in skirmish order, finding the country between the wall and the city flat and level. There were grave mounds, dikes, and ditches in great numbers, constituting ready-made trenches, which were a great help, as without them on such an open fire-swept plain they would have had great difficulty in advancing, and would have been compelled, with only the bayonet, to throw up hasty intrenchments. During the day the Chinese kept up a terrific fire from machine guns and modern rifles, as well as from jingals, a favorite weapon with them. These last are an adaptation of the breech-loading action to a barrel about 7 feet long, that requires two, and sometimes three men to fire. They have a long range, and when they hit the bullet is heavy enough to stop anything. The wall of the native city was well-manned with artillerymen of the imperial army and with Boxers. Many were armed with old-fashioned and obsolete weapons, muzzle-loaders and matchlocks, and, in the suburbs outside the south gate great numbers of Boxers sniped from concealment among the mud houses and grave mounds.

The arrangement for the attack included the cooperation of the naval guns under the direction of Captain Bayley, of the Royal Navy. They were controlled by telephone from a signal tower in the British concession. They were in readiness at 4 a. m., but owing to the darkness and mist, fire was not commenced until half an hour later. A heavy fire was kept up to the west in order to subdue that of the enemy from the wall on both sides of the south gate, as our troops advanced from the southwest, until signaled to cease as the Japanese had entered the city. This message was sent by General Dorward in response to a request received from General Fukushima's chief of staff about 1 p. m., and soon after a general assault was made by the allies. The advancing troops were, however, met by so heavy a fire from the wall, increasing in intensity as they approached, that it was apparent that the Japanese had not entered the city, and the assaulting lines were forced to take cover close to the canal around the city. Orders were sent for the guns to open fire again, which they did so effectively that the troops in the advanced trenches suffered very little loss during the rest of the day.

On the left the United States marines and the British fusiliers had reached an advanced position, and occupied a line of trenches about 800 yards from the enemy. In their front was a bad swamp through which a stream meandered, rendering further advance in that direction impossible. They were subjected to severe fire during the day, but protected that flank, repelling two attempts by the enemy to flank the allied forces, one about 8 a. m. and another at 2 o'clock in the afternoon. Toward evening the most threatening demonstration of the day was made by large bodies of the enemy on the same flank, but, with the assistance of the naval guns that directed their whole fire on the enemy, and under cover of rifle fire from troops on that flank, the attack was repelled. After dark the marines and fusiliers were withdrawn with very slight loss, and formed up behind the mud wall. This withdrawal was most difficult, the enemy having the range so accurately that his shot struck the crest of the trenches and threw dirt in the faces of the men. It was made, in small parties of eight or ten men, by rushing from one mound or trench to another. The dead and wounded had previously been moved to the rear. General Dorward in his official

report says the movement reflected great credit on the American commander, Colonel Meade, and Captain Gwynne of the fusiliers. The extrication of the Ninth Infantry had then to be undertaken. It was done after dark under the fire of the naval guns, directed on the barriers along the fringe of houses between the French settlement and the city, from which most of the fire on the Americans had come, and, with the assistance of an English naval detachment, the dead and wounded were brought back, and the regiment reached the mud wall in safety. Early in the attack two French companies had been detailed to clean out the Chinese from the ground between the French settlement and the city from which, later, the deadly fire on the Ninth Infantry had proceeded, but they were unable to make any headway, and abandoned the movement.

The Japanese and other troops still clung to their advanced positions close to the city wall, and dispositions having been made for the protection of the flank and rear, the troops tried to make themselves as comfortable as possible, provisions and water being sent forward to the troops on the line by the British commander. The day had been an unusually hot, trying one for the attacking force, which cheerfully endured the hardships and bravely faced the dangerous fire of the foe for many hours. During the night there was some rain.

About 3 a. m. next day, July 14, the Japanese sappers crossed the canal by a bridge they had constructed during the night, blew in the outer gate, and clambering over, opened the inner gate, through which the allies entered unopposed, the Chinese having withdrawn during the night to the suburbs to the north and west.

General Dorward, in a letter to Colonel Meade written immediately after the fight, in a most manly fashion, assumes the blame for the mistake of the Ninth Infantry going to the right instead of the left "for not remembering that troops wholly fresh to the scene of action and hurried forward in the excitement of attack were likely to lose their way," but he points out that the position taken up by the regiment and so gallantly stuck to all day under a galling fire "undoubtedly prevented a large body of the enemy from turning the right of the attacking line and inflicting serious loss on the French and Japanese."

Casualties as given in General Dorward's report in attack on south gate:

British, 2 officers and 12 men killed, 1 officer and 16 men wounded.

Americans—

Ninth Infantry, 1 officer and 22 men killed, 3 officers and 70 men wounded.

Marines, 1 officer and 4 men killed, 2 officers and 25 men wounded.

French, 110 killed and wounded.

Japanese, 70 killed, 300 wounded.

Austrians, 5 men wounded.

They are reported by Col. R. L. Meade, U. S. M. C., as follows:

Americans, 24 killed, 98 wounded, 1 missing.

English, 17 killed, 87 wounded.

Japanese, 320 killed and wounded.

French, 13 killed, 50 wounded.

Russians and Germans, 140 killed and wounded.

Total killed, wounded, and missing, 750.

The Russian column moved out on the other side of the river. It had been arranged that, having the longer march, they should move in time to attack the batteries at 10 o'clock in the forenoon, the forces on the south to attack as early as possible in order to attract the bulk of the Chinese to that side of the river, and so facilitate the capture of the batteries by the Russians. A German account says the force consisted of twelve companies of Russian and two German troops, with two Russian field batteries and a French mountain gun battery; that they outflanked by an eastward movement, and carried the Chinese northeast position north of the Lutai canal and others along the railroad embankment east of the city, capturing twelve guns, and blowing up two magazines, also that the Russian General stated in his report that it was the Germans who captured the guns, exploded the magazines and distinguished themselves in the vanguard. Their casualties were 6 Germans wounded. The Russian column was commanded by General Stössel. The German contingent was composed of men from the Gefion, the Irene, and the Kaiser Augusta commanded by Captain Weniger. Other accounts mention but one explosion, i. e., near the Lutai Canal. The weight of evidence seems to give the credit for the explosion of this magazine, full of brown powder, near the Lutai Canal, to a shell from the French battery. The explosion occurred

about 5 a. m., and is described as being of tremendous violence, throwing a column of black smoke 600 feet into the air, breaking glass and shaking buildings in the settlement. Fortunately it caused no serious casualties among the allied forces, which were 500 to 600 yards distant, though many men and horses were thrown down, and the mules of the French mountain battery bolted. General Stössel, the Russian commander, was thrown from his horse and received some slight injuries from falling débris, but was able to resume his command after an hour's rest.

After the capture of the outlying Chinese positions, a movement in two columns, one attending a flank movement from the right, was made against the fort near the city, but the resistance was too obstinate to be overcome, and the allies were able only to hold the ground they had gained on that side, having pushed the Chinese back steadily all day, suffering severe losses.

On the 14th, after the entry of the allies into the city, the Northeast Fort, as it was called, was taken, with the assistance of the Japanese, about midday, rendering unnecessary the arrangements made by the Russians for bringing up additional artillery, and repeating the attack. The American troops, represented by detachments of the Ninth Infantry and of the marines, assisted in the operations on the north and east, being located near the railway station, a dangerous position, exposed to almost continuous severe fire from the Chinese artillery during the whole day, causing many casualties among them.

After the city was taken the allies pushed on as fast as possible to the north suburbs, and captured about 200 junks that afterwards proved very useful in the advance on Peking. A system of military government was soon instituted, and the city was divided into four districts for administrative and police purposes, each district being under the control of one of the nationalities.

As described by various correspondents, the conditions existing in the walled city when the allies entered exemplified in a most striking manner the horrors of war; hundreds of Chinese dead lay about in the streets or were piled along the walls; others wounded lay as if dead if approached, fearing to be killed, as doubtless many were. The stench arising from dead animals was intolerable. The overheated air

was sodden with smoke and the noisome smell of carrion. Swollen corpses lay about in every position of agony, on which clustered swarms of flies that arose in clouds with an angry buzz when disturbed. All about was evidence of the immense damage done by the allied guns in the shattered and burning houses, among the smoldering ruins of which were many charred corpses being eaten by pigs and dogs. The city wall itself suffered little damage, notwithstanding the tremendous fire directed against it by the foreign artillery; it was evidently not heavy enough to produce much effect.

The suburbs of the city gave indication of what the conditions must be inside. The allies, when they fought their way to the walls, saw floating in the canals and ditches dozens of headless bodies with the hands tied behind their backs, and rows of heads decorated the outer wall, hung by their pigtails, all slain by their own people because they refused to fight or were suspected of being in sympathy with the foreigners.

Under normal conditions the place festered with the accumulated rubbish from a dense population, packed into a labyrinth of hovels around the palaces of viceroys and petty taotais, so there was no exaggeration in the language of one writer who said that "the walls of the city, on the day it was occupied, surrounded a square mile of such filth, ruin, and death, such turmoil and pillage as history could hardly duplicate." The looting and pillage of the city, mostly by the natives, but joined in by many Europeans, was, on the first day, entirely unrestrained; later, the allied commanders, as soon as attention could be given to it, adopted severe repressive measures to put a stop to it, and the scandal was soon discontinued. The Japanese, on account of the admirable discipline under which their soldiers are held, are said to have done the least looting. Strict orders from our officers and American training and instinct prevented our men from engaging in this orgy of thieving and outrage.

In reestablishing order, carrying out absolutely necessary sanitary measures, providing for the care of the sick and wounded, supply and welfare of the troops, besides the military problems of securing their communications from interruption, guarding against attack, and by frequent reconnoissance, keeping informed as to the enemy's force and whereabouts, and preparing for the advance to relieve the legations, the allies had occupation enough to keep them busy.

THE RELIEF OF PEKIN.

The situation at Peking, temporarily obscured by affairs at Tientsin, again became the subject of deepest interest. The intense anxiety of the civilized world for the safety of the foreigners, and the desire for their rescue, caused impatience at the seeming unnecessary delay in starting the relief expedition, and much criticism of the allied commanders was indulged in by the press.

As usual, the estimates of the Chinese forces were widely divergent, and ranged from 8,000 to 30,000 thought to be opposed to the allies in their march to the capital. This is not surprising in view of Lord Beresford's statement that even in peace times no one knows the strength of the Chinese army, not even the Chinese Government itself, and that of General Wilson, who says that its total strength can not be exactly ascertained, and that a mere statement of the number of men belonging to it would be of no value, as many enrolled are neither armed nor equipped, and others are not performing any service, but pursuing civil vocations.

The allied commanders held frequent conferences and generally agreed that an advance was impracticable without substantial reinforcements and supplies of all kinds. These were now continually arriving, and the task of preparing for the advance kept all busy. The obstinate resistance by the Chinese in the fighting that had already taken place showed that their armies had profited by foreign military instruction, and the grave consequences of a reverse to the allied forces made it necessary that the relief expedition, when once started, should be strong enough to overcome any opposition it was likely to meet. The reports about this time from Peking were conflicting. Circumstantial accounts of the massacre of the Europeans on July 6 and 7, furnished by what has since been called the "Shanghai liar," July 16, came with a shock to the civilized world, and in Europe generally the fact of the massacre was reluctantly but gradually accepted as true. The belief may have operated to dull the energy of preparation for rescue, for if there were no foreigners to save, there was no need of haste, but in America the "Conger" message received at Washington on the 20th, showing that the foreigners were alive on July 18, was given full faith by the Government, and the earliest possible start of the expedition

was continually urged, and these views were impressed upon the commanders of our forces in China.

From the beginning of the troubles the interested powers had hurried war vessels and troops to the scene of action. On June 30, the British admiral, Bruce, reported forces landed at that date as follows:

	Officers.	Men.
Russia	117	5,817
Japan	119	3,709
England	184	1,700
Germany	44	1,300
France	17	387
America	20	329
Italy	7	131
Austria	12	127
Total	520	13,500

With 53 field guns and 36 machine guns.

Reenforcements were arriving every day, and ten days later it was estimated that the force at the disposal of the powers was about 20,000. On July 11 the "London Times" published a statement of the strength of the powers in Chinese waters, from which it appears that England had then two battleships, three armored cruisers, two protected cruisers of the first class and three of the second class, a dispatch vessel, four sloops, two gunboats, and four torpedo-boat destroyers, all having a complement of 6,000; there were also en route, or under orders to proceed thither, two battleships, one first, three second, and two third class protected cruisers, and two gunboats, with a total complement of 4,000. The British forces landed included, besides seamen and marines from the various ships, 384 officers and men of the Second Royal Welsh Fusiliers and Royal Engineers, four companies of the Hongkong Regiment, which is recruited from Mohammedans of the Punjab; one mountain, and one field battery of the Asiatic Artillery, all from Hongkong, and 200 men of the Chinese Regiment from Weihaiwei. The Indian contingent, then embarking for China under the command of Lieut. Gen. Sir A. Gaselee, consisted of 223 British officers, 308 British warrant and noncommissioned officers, and 9,540 native officers and men, with 7,170 camp followers, 1,280 horses and ponies, 2,060 mules, 6 guns and 11 Maxims.

The Russian naval force consisted of three battleships, three armored cruisers, one protected cruiser of the second class, and two armored gun vessels with a complement of 4,500, besides an armored cruiser on the way with a complement of 567; other vessels were on the station, or on the way from Vladivostok, and, at either Port Arthur or Taku, seven torpedo gunboats, having a complement of about 800. The Russian troops landed at Taku up to the middle of June numbered 3,000, commanded by General Stössel; this number was nearly doubled by the end of the month, and more, it was thought, had since been landed, mainly drawn from the garrison at Port Arthur.

The Germans had one first and four second class protected cruisers, and three gunboats, with a complement of 2,219, and on the way and under orders six battleships, an armored cruiser, a protected cruiser of the third class, and a dispatch vessel, total complement 4,600. They had already landed 1,350 officers and men from the ships, including some troops from the garrison at Kiaochow, marines, a field battery, a Chinese company, pioneer section, and some naval artillery. Two thousand three hundred marines, under the command of General von Hoepner, were en route, and the gunners for a 6-gun battery, with teams, were to come from Kiaochow and a battery of 3.4-inch guns from the home army, besides other reinforcements then arriving—1,200 men intended as relief crews for the ships. From German sources of July 11 we learn that the forces intended for the East were to consist of a corps of more than 10,000 men, principally infantry. Two battalions, each about 800 strong, to be taken from the infantry regiments, the third to remain in Germany as a reserve; cavalry to the number of 1,000. For economical reasons, the horses were to be procured by purchase in the Dutch colonies. The men were to be transported on steamers of the North German Lloyd Company.

The artillery was to consist of two field and one mortar battery. There being already three field batteries at Kiaochow with the two battalions of marines, the troops would have at their disposal 36 field pieces. Large units of pioneers and detachments of railway troops were also to be sent, in the belief that the conditions would make their services very necessary. With the troops already on the spot (3,300) composing the three battalions of marines, the total strength would be somewhat more than 15,000 men.

The emperor, moreover, had ordered further reenforcements, consisting of an infantry brigade of eight battalions on a war footing, 800 men; three squadrons of cavalry and four batteries, including a field howitzer battery; these were to be composed of volunteers from the active army, and were to leave at the end of July. Still later Berlin advices, July 26, stated that, in addition to the regular forces (naval and marine infantry) already started or soon to leave for China, the Government had organized an East Asiatic expeditionary corps, to be commanded by a lieutenant general (Von Lessel) and to consist of two brigades of infantry of two regiments of eight companies each, commanded by major generals; a cavalry regiment of three squadrons, and a field artillery regiment of four batteries, and of various howitzer batteries, ammunition and train detachments, and the necessary staff. The advance detachment of this corps sailed from Genoa on the 24th of July, and a large part was to leave from Bremerhaven on the 28th, the remainder in about a week later.

The French naval force comprised one first-class and three second-class protected cruisers, and two gunboats, having a total complement of 1,800; on the way and under orders were one armored cruiser, one first-class, and five second-class protected cruisers, with a total complement of 2,300.

From the French ships under the command of Rear Admiral Courrejolle, a force of about 400 blue jackets had been landed up to June 30. Marine troops were also sent from Saigon, the capital of French Cochin-China, and by July 3 2,000 men in all were expected to have arrived; 2,500 more left Toulon on June 29, and early in July, from the same port, were shipped three battalions, each of 600 men; two batteries of artillery of 110 men each, with 75 horses and mules; sections of telegraphists and hospital attendants, with stores and ammunition, while another battalion of marines was being formed at Toulon for the same service, and a brigadier general was to proceed to Taku to take command of the forces.

Advices dated July 26 from the United States military attaché, gave the following information:

The French expeditionary force for service in China was to be a division composed as follows:

First brigade, General Frey commanding:

Three regiments marine infantry (sixteenth, seventeenth, and eighteenth), each of three battalions of 600 men, to be raised later on to 800 men.

Four mountain batteries and two field batteries, with 3.15-inch guns, 800 men, and 720 mules.

Artillery mechanics, engineers, telegraphic and hospital corps, 50 men of each.

Second brigade, General Bailloud commanding:

One regiment of zouaves, four battalions of 1,000 men each.

One regiment of infantry of the line, three battalions of 1,000 men each.

Three batteries of 3-inch guns, presumably the latest model (75-millimeter gun), 550 men, and 95 mules.

Two squadrons Chasseurs d'Afrique, 300 men, 300 horses.

Detachment of the park artillery, 130 men.

Detachment of divisional engineers, 40 men.

Detachments of general-service men for various special services, 800 men.

Grand total, 15,220 men.

Of the above-mentioned the Sixteenth Marine Infantry, two mountain batteries, and one field battery were then at Taku. The remainder of the first brigade had left France, except one battery to sail from Toulon about August 1. The second brigade was to sail from France and Algeria between the 10th and 20th of August. The sending of a battery of short 4.7-inch guns, two companies of troops of the train, a section of railroad troops, and a balloon section was also being considered, and it was intended to send from Saigon a number of coolies for service with the troops, amounting to 10 for each company or battery.

The Italians had two third-class protected cruisers at Taku with a complement of 514 men, while on the way and under orders were two armored cruisers, and two protected cruisers of the second class, with a total complement of 1,550. Seven officers and 131 men had been landed, and an expeditionary corps of 2,000 men, half of infantry of the line and half of bersaglieri was to sail from Italy about July 15.

Austria had one torpedo cruiser on the station, the *Zenta*, from which 140 officers and men had been sent ashore, and its force was to be increased by the addition of two armored cruisers and one protected cruiser of the second class, with a total complement of 1,350.

The Japanese naval force comprised one armored cruiser, four second-class and three third-class protected cruisers, with a complement of 2,740, besides several torpedo destroyers. A battleship, an armored cruiser, and a second-class protected cruiser were known to be under orders, and other formidable

vessels were available, if required. The Japanese forces landed up to June 30 were over 3,800 in number, and additional forces were being rapidly moved to the field of action.

The United States had on July 11 in China the battleship *Oregon*, the cruisers *Baltimore*, *Newark*, *Don Juan de Austria*, and the gunboats *Helena*, *Nashville*, *Yorktown*, and *Monocacy*. The *Oregon* left Hongkong for Taku June 24, but received a serious injury by striking an uncharted rock, and was then undergoing repairs at the Japanese government docks at Kuri. The *Brooklyn* had arrived a few days before from Manila with Admiral Remy on board, who was to succeed Admiral Kempff. The cruiser *Buffalo* and the *Iris*, *Alexander*, *Saturn*, and *Hannibal* were under orders for Taku, and the gunboats *Princeton* and *Marietta* were directed to be in readiness for the same service.

Up to June 30 Admiral Kempff had landed 20 officers and 329 men, with guns, from the ships at Taku. The Ninth Infantry and a battalion of marines had reached Tientsin July 11, in time to take part in the attack on the walled city on the 13th.

The Fourteenth Infantry, commanded by Col. A. S. Daggett, and Reilly's Battery (F) of the Fifth Artillery, sailed from Manila July 15 on the transports *Indiana* and *Flintshire*. They were already at Tientsin when General Chaffee arrived at Taku, about the last of July, on the *Grant*, having on board the Sixth Cavalry, besides a number of unassigned recruits for the organizations already on shore. These were disembarked as expeditiously as practicable, considering the difficulties from lack of facilities, shown by the fact that it took two days to unload the horses for Reilly's Battery.

There were now landed:

Organization.	Officers.	Men.	Total.
Sixth Cavalry and recruits...	27	1,083	1,110
Battery F, Fifth Artillery ...	4	138	142
Ninth Infantry, 12 companies...	39	1,271	1,310
Fourteenth Infantry, 8 companies -----	26	1,118	1,144
Total.....	96	3,610	3,706

Ordered to Nagasaki and available for service in China, if required:

Organization.	Officers.	Men.	Total.
E, Engineer Battalion -----	2	150	152
First Cavalry, 8 troops -----	20	834	854
Third Cavalry, 4 troops -----	10	428	438
Ninth Cavalry, 8 troops -----	20	834	854
Third Artillery, 4 batteries --	11	452	463
Seventh Artillery, 3 batteries--	9	469	478
First Infantry, 8 companies--	24	1,058	1,082
Second Infantry, 8 companies--	22	1,058	1,080
Fifth Infantry, 8 companies--	22	1,058	1,080
Eighth Infantry, 8 companies--	22	1,058	1,080
Fifteenth Infantry, 8 companies -----	22	1,058	1,080
Total-----	184	8,457	8,641

In addition to these, the Third and Seventeenth regiments of infantry were ordered to be in readiness, if emergency arose calling for their services, and there were on the way 500 marines, which, with those already in China, would make three battalions of 400 men each.

Careful preparation was made by the various staff departments for the equipment and supply of the troops, and the care of sick and wounded. The Adjutant General published a memorandum on July 17 showing what had been done in that direction by each department, which is summarized as follows:

MEDICAL DEPARTMENT.

The troops from Manila had with them 8 medical officers, 46 hospital corps men, regimental field hospitals of 25 beds, besides outfit for a general field hospital of 350 beds; medical supplies for 5,000 men for three months, and a hospital fund of \$500.

From San Francisco had already sailed a total of 18 medical officers, one of whom was provided with \$50,000 of public funds from the medical and hospital appropriation, and \$1,000 of hospital funds, and 78 assigned and unassigned members of the hospital corps.

On the *Meade*, sailing August 1, were to go 8 or more medical officers, one of whom, Assistant Surgeon Fuller, U. S. A., assigned to the Fifteenth Infantry, was to have a field hospital of 50 beds, and \$10,000 hospital funds, and a detachment

of 18 hospital corps men, to which a larger unassigned list might be added.

Details of further preparations were not then complete.

SUBSISTENCE DEPARTMENT.

The chief commissary at Manila was charged with the supply of troops in China, and furnished with information that enabled him to estimate and call for the necessary supplies, for which orders were then placed. The Department had foreseen, and had directed him to provide for the probable necessity of supplying the marines and seamen on shore service with the army, and of having on hand at least six months' supply in the depot in China before November 1, when the usual obstruction of navigation by ice in the Gulf of Pechili might be looked for. Fifty thousand dollars in gold had been invoiced to him for use in China.

The Ninth Infantry left Manila with thirty days' rations and their transport carried to Taku a three months' supply for 5,000 men.

The two squadrons of the Sixth Cavalry carried eighty-five days' field rations and three bake ovens, and the Fifteenth Infantry was to take sixty days' field rations, this last being the number to be supplied to all the troops then under orders, as fixed at the request of the chief commissary in Manila.

The meat ration furnished consisted of forty days' bacon and twenty days' canned meats—meat stew, corned-beef hash, and corned beef; fresh or desiccated potatoes, or a combination of the two, to be supplied from San Francisco. The chief commissaries at Manila and in China were informed as to the character of the meat ration for use in China, and given all available information as to the possibility of procuring fresh meat and vegetables there. Manila was recommended as the most convenient point for the location of the main base of supply, with a secondary base somewhere in China, probably Taku.

SIGNAL CORPS.

One first lieutenant and 10 men of the corps sailed with the Ninth Infantry, carrying material and instruments for 50 miles of field telegraph line, and on the *Grant*, with General Chaffee, 2 officers and 8 men, with material for 100 miles of line. Maj. George P. Scriven, signal officer of volunteers, was ordered to report to General Chaffee as signal officer of

the command. Four other volunteer signal officers were available for foreign service if required.

QUARTERMASTER'S DEPARTMENT.

Abundant supplies of winter clothing for the troops, including ponchos, arctic overshoes, and blanket-lined canvas hoods; 1,400 Sibley stoves and 7,000 joints of stovepipe were to be shipped from San Francisco on transports leaving July 16 and August 1. Troops leaving the States for China carried a complete outfit of tropical clothing in addition to their regulation winter clothing and tentage; those from the Philippines were fully equipped with tentage and a supply of unlined blouses, light-weight trousers, woolen undershirts, cotton stockings and drawers; D. B. flannel shirts, sufficient for 5,000 men, and 360 Sibley stoves were shipped from Manila.

With the Ninth Infantry were sent 98 mules, 19 escort wagons, 4 ambulances, 1 Dougherty wagon (4-mule), 1 delivery wagon (2-mule), and forage for thirty days, and with the troops leaving Manila were ample supplies of all quartermaster's stores and the regimental quartermasters were furnished with funds.

From San Francisco on the transports *Leelanaw* and *Con-nemaugh*, and from Portland on the *Lennox*, were shipped a total of 901 horses for the Sixth Cavalry, 14 draft and 100 pack mules, 28 riding horses for packers, and 2 bell mares; 100 aparejos with complement of packers, cargadores, etc., for two complete pack trains, and full supplies for three months of horse and mule shoes, nails, farriers' tools, veterinary medicines, rope, lanterns, etc. The pack trains, mules, and supplies were shipped on the *Lennox*, and the forage on the three vessels included oats for one hundred and ninety-six days, and hay for ninety-eight days for all the animals. The quartermasters on the several transports had each been provided with \$10,000 in gold—public funds. There was also ordered to be placed on the transport at San Francisco, on which the Fifteenth Infantry was to sail, a supply of paulins, stable brooms, rakes, rope, nails, boilers for boiling drinking water, lanterns, buckets, water kegs, field cooking ranges, and carpenter tools for each company.

Four hundred thoroughly broken mules were en route to Seattle available for use wherever needed, and 285 aparejos, 100 sterilizers, capacity 25 gallons per hour, were being made to be sent to San Francisco by express as soon as possible.

Eight would be ready to go on the *Meade* on August 1, with two distilling plants, having a capacity of 600 gallons per day. Sterilizers are intended for making potable river or other fresh water which is impure; the distilling plants, in addition to that use, furnish potable water from sea water. Additional distilling plants were to go by succeeding transports until a sufficient number was furnished for the needs of 6,000 men.

Other matters were attended to, such as the procuring and supply of lumber, fuel, small cast-iron stoves, procurable in Japan, suitable for the soft coal of that country, to be used by the troops, in addition to the Sibleys provided. The transfer of troops and freight on Manila transports sailing from San Francisco, at Nagasaki, to lighter-draft transports running between that port and Taku, was arranged for. Animal ships were chartered, and fitted up as fast as they arrived, to carry 4,000 animals, mules and horses, as might be needed.

ORDNANCE DEPARTMENT.

The base to be at Manila—the Cavite Arsenal—to which all supplies from the United States, not going direct to China, should be sent, unless, by courtesy of Japan, a depot should be established at Nagasaki. The Chief of Ordnance reported on hand an abundant supply of ammunition for small arms and machine guns of rifle caliber for a prolonged war on a large scale. For large-caliber guns there were on hand 400 to 500 rounds each, and orders placed for more. For all the service 3.2-inch field guns there were 500 rounds and provisions made to keep up the supply indefinitely, all of smokeless powder; also black-powder cartridges, caliber .45, that could be used for Gatling guns of that caliber, the smokeless-powder cartridges of that size, made for the Springfield rifle, having proved unreliable.

In addition, orders were already placed in England for 50 Colt automatic-machine guns, caliber .30, with cartridges and accessories complete; for two complete batteries, of 6 guns each, of 12-pounder Vickers-Maxim mountain guns, and 300 rounds of ammunition; and two batteries, 6 guns each, of 1-pounder Vickers-Maxim automatic guns, with 1,000 rounds of ammunition, to be delivered at the earliest practicable moment.

Of 25 Colt automatic guns under construction for the Navy Department at the Colt factory, that Department had authorized 12 of them to be turned over to the Army, but they had still to be sighted for ranges over 1,000 yards, which would take some time.

The settlement of the time for the advance was left by the powers to the several commanders, whose views, doubtless, differed and changed from time to time as circumstances altered, as to the number of men required, and the degree of preparation necessary. On July 23, by which time the railroad from Taku to Tientsin had been reopened for traffic, the number of troops in Tientsin was reported to be 28,000, and, by the end of the month, the strength of the allies was increased by further arrivals of American, English, and Japanese reinforcements, including the commanders selected for the forces of the two first named, General Chaffee and Sir Alfred Gaselee. From the tone of the press dispatches received about this time in the United States, it was feared that no advance could be made before the middle of August, and it seems to be a sufficient answer to the harsh criticisms of the commanders that the advance was begun nearly two weeks earlier than was expected, while the discreetness with which their plans were made is shown by the fact that it had been in progress a day or two before it was known to the general public. The credit for the early start is mainly due to the American, English, and Japanese commanders, who, following the instructions and wishes of their governments, collectively urged, and finally impressed upon the others, the absolute necessity for pressing forward to Peking at the earliest possible moment.

At a meeting held on the 3d of August it was arranged to begin the advance on the following day with approximately 20,000 men, made up as follows:

	Men.	Guns.
Japanese	10,000	24
Russians	4,000	16
British	3,000	12
Americans	2,000	6
French	800	12
Germans	200	-----
Austrians and Italians	100	-----
Total	20,100	70

Reconnaissance had shown that the Chinese occupied an intrenched position on both sides of the Peiho, near Peitsang, which it was decided to force, and then to push on to Yangtsün, so as to secure the passage of the river at that important strategic point. It was generally agreed upon by the allies that the Japanese, English, and Americans were to operate along the right bank of the river, the other allies on the left bank.

Reports from Tientsin were that General Lung was at Yangtsun with about 10,000 men, while General Ma, the viceroy (Yung Lee), and the taotai of Tientsin were at Peitsang, with about the same number of men. Russian and Japanese estimates of the strength of the enemy at Peitsang were 8,000 and 11,000, respectively. The army was said to be short of provisions and ammunition, and much disheartened by their defeat. Information from the Russian general staff at St. Petersburg was to the effect that the greater part of the defeated troops of Generals Lung and Ma were at Yangtsun with some of General Nieh's division which had been dispersed, and that, on the road to Peking and in the capital, there were about 50,000 trained Chinese troops and large numbers of "Boxers," whose force was by no means broken.

On August 31, after ample time to get correct figures, Reuter's Agency gives the numbers of the allied forces engaged in the relief expedition as:

Japanese, 6,600 infantry, 220 cavalry, 450 engineers, 53 guns.

Russian, 3,300 infantry, 180 cavalry, 22 guns.

British, 1,832 infantry, 400 cavalry, 13 guns.

American, 1,600 infantry, 75 cavalry, 150 marines, 6 guns.

French, 400 marines, 18 guns.

A total of 15,607 men and 112 guns.

The absence of the Germans, Austrians, and Italians is explained by a telegram from Tientsin received at Berlin, August 11, that said: "After the fight at Peitsang, the Germans, Austrians, and Italians returned to Tientsin, probably having no transportation for their supplies;" and one from General Frey, dated Tientsin, August 9, received at Paris, saying: "Upon my return to Tientsin I offered the Germans, the Austrians, and the Italians, who are not at present represented in the column, to facilitate the dispatch of a detachment to cooperate, if necessary, in the capture of Peking. They accepted with gratitude, and the French forces,

which had been left at Tientsin, are now making forced marches with them to join the column."

The number of guns with the command as given above is in excess of the 70 agreed upon by the commanders, the greater part of the increase being in the number taken by the Japanese. Colonel Churchill, the British military attaché to the Japanese, said that they had 54, not 24, guns; three field batteries of 6 guns, and six batteries of mountain guns. The same authority gives the strength of the French artillery as two mountain batteries firing melinite, and that of the Russians as two field batteries, 8 guns each.

The troops of each nation were under the control of their own commanders, who gave the necessary orders for carrying out the general plans and movements agreed to.

The American contingent, commanded by General Chaffee, was composed of the Ninth and Fourteenth regiments of infantry and Light Battery F, Fifth Artillery, in all, about 2,000 men. The Sixth Cavalry was left behind as a guard, and was waiting the arrival of its horses. The British, commanded by General Gaselee, consisted of four companies of the Royal Welsh Fusiliers, the First Bengal Lancers, First Sikhs, 250 of the Twenty-fourth Punjab Infantry, and 400 of the Seventh Bengal Infantry, the twelfth field battery (6 guns), the Hongkong Royal Asiatic Artillery (2 naval 12-pounders and 4 Maxims), and the naval brigade (4 guns), about 400 strong—125 seamen and 278 marines.

The Japanese division was commanded by General Yamaguchi, General Fukushima being chief of staff. Their artillery consisted of three field batteries and six mountain batteries.

The Russians, commanded by Lieutenant General Linievitch, had two regiments of infantry, nominally of 2,000 men each, but they were not of full strength; two field batteries, and some Cossacks. The French, under General Frey, had about 400 men of the marine infantry from Cochin China and two batteries of mountain guns.

The movement commenced on the afternoon of August 4, when the Americans and British moved from their camps and bivouacked at Hsiku, the Japanese following and taking a position in advance a little while before midnight. The Russians and French were on the other side of the river, the former on the right.

The general idea was that the Japanese, British, and Americans should operate along the right bank, while the other allies should act on the left side of the river. The position of the enemy comprised a line of intrenchments running generally northeast and southwest, on both sides of the railroad, their right resting on an embankment running westerly from Hsiku and the left, nearly 5 miles away, at a camp near a railroad bridge, beyond which the country had been flooded, the center being greatly strengthened by a series of well-hidden rifle pits and trenches. From the river to their extreme right, where they had a battery on the embankment, a single line of intrenchments crossed the plain, and on the other side of the river their position was strengthened by a canal running along its whole length. The plans of the allies contemplated the turning of both flanks of the enemy's position. On the right bank the attack was to be made by the Japanese, supported by the Americans and British. Before daylight the whole force on the right bank moved forward to the west under cover of the embankment, the Japanese, about 3 a. m., capturing the battery on the embankment by a rapid advance under a brisk rifle fire (the celerity of the movement made their loss small) and afterward drove in the enemy's right flank for some distance along their intrenchments, and at daylight the artillery opened on the Chinese from behind the embankment. The artillery duel lasted about half an hour, when the Chinese fire slackened and soon ceased altogether. While it was in progress the Japanese infantry, supported by a mountain battery on their right rear, had, under cover of the high maize, worked up close to the enemy's position on the river bank, into which they charged, a little after 5 o'clock, displaying great gallantry, and suffering heavily from the fire in their front, as well as from a severe cross fire from the opposite side of the river. The enemy was driven in succession from one intrenchment after another, and now the entire force on the right side advanced, all crossing the protecting embankment, moving across the plain in open order to the attack, the Japanese proceeding along the river, the British next, and the Americans on the left. The enemy did not wait and practically made no further resistance, except for some occasional firing at long range from villages along the river. The example of the flight from the first intrenchments was contagious, and the whole army retreated across

to the left bank of the river toward Yangtsun. By 9 a. m. all firing had ceased and Peitsang was occupied by the allies, where they halted, the work laid out for the day being finished. The casualties show that the Japanese did about all the fighting, and the credit for the victory is freely and cheerfully accorded to them by the Americans and British.

On the other side the Russians and French, with whom the British naval brigade was cooperating, were unable to outflank the Chinese position owing to the flooded condition of the country, but the rout of the enemy by the Japanese compelled them to abandon all their works, and the Russians and French moved up and occupied those on their side of the river. The Chinese were able to save their guns, except the battery on the embankment captured by the Japanese, by withdrawing them early in the fight, and this must have predisposed the rest of their army to its prompt retreat. The Japanese losses in the action were 60 killed and 240 wounded; the British, 1 killed and 25 wounded, 14 slightly; the Russians had 6 wounded; the others had no casualties.

The enemy did not suffer heavily. In the intrenchments near the river, before which the Japanese had lost so many, but few Chinese dead were found after the fight. This was true of most of their line, except on the extreme right, where about 50 dead Chinamen were counted.

The allies pushed forward after the retreating Chinese for a mile or two until stopped by inundations. The enemy had cut the river bank at several points and flooded the country. They then returned to Peitsang and, joined by the Russians and French, all bivouacked for the night, covered by strong outposts thrown out 2 or 3 miles in advance.

The halt at Peitsang was utilized to bring up supplies and prepare for the forward movement. When the start was made from Tientsin the sight presented by the enormous amount of road transportation is said to have beggared description; it included pack animals of all kinds, horses, ponies, mules, donkeys, carts of all shapes and sizes from the little "coster's barrow" drawn by Japanese ponies, to what were called the "huge American prairie wagons, each drawn by four enormous mules," that trailed for miles behind the troops. Everything on wheels had been impressed into the transport service, even the cows bearing packs for the Japanese, and loaded camels plodding along with the Russian trains.

Coolies dragged carts, staggered under heavy burdens, and poled or tugged up the river clumsy junks or scows loaded with stores, but notwithstanding the seeming immensity of the trains, each contingent was hampered by the inadequacy of the means for moving its most necessary supplies.

The plans for the next day, the 6th, provided for an early start, the Japanese to continue marching on the right bank, repairing the breaks as they went forward, the rest of the allies to move on the main road on the left bank of the river. The Americans had the advance. They were followed by the Russians and French, who clung to the river road; after them came the British, who by marching on more direct roads were able in a few hours to pass them and overtake the Americans. About half past 9 the advance, a small party of Cossacks, got in touch with the enemy, who occupied a strong position about 3 miles away, in a group of villages situated in the angle made by the railroad embankment and the river. The ruins of the Yangtsun station on the left bank marked about the center of the position, their right being close to the river resting on a village, and their left extending beyond the railroad among other mud villages.

Generals Chaffee and Gaselee made prompt dispositions for attack, with one Russian battalion on the left, the British in the center, and the Americans on the right, the other troops being too far behind to be available at the moment. The twelfth field battery (British), supporting the left of the British line, commenced to shell the village in front of the railroad station. During the artillery firing the infantry reached the positions assigned them, and deployed for the advance. The Ninth Infantry advanced on the extreme right, beyond the railroad embankment, supported by Reilly's battery, followed, on their right rear, by the First Bengal Lancers, assigned to operate on that flank; on the left of the embankment the Fourteenth Infantry, then the British, the First Sikhs being on the front line, supported by the Royal Welsh Fusiliers and Twenty-fourth Punjab Infantry. About the time that the dispositions were completed General Linievitch arrived, and stated that his troops were advancing on the left, along the river embankment. The whole line now moved forward in regular order across the 5,000 yards of level plain, covered by the high maize that separated it from the enemy, and had covered nearly half the distance before meeting a

severe shell and rifle fire, the Fourteenth Infantry suffering the largest losses. The latter part of the advance was more rapid and irregular, and when nearing the enemy, Colonel Daggett led his regiment, at a run, across the remaining distance. The enemy broke and ran before the embankment was reached; the fight was won on that flank, and the position occupied.

On the left the Russians had been fighting for two or three hours, and, when the enemy retreated, had moved up a battery in rear of the captured village and shelled parties of Chinese, who were retreating in all directions.

In this affair all the American forces were engaged, and to their superb fighting qualities, steadiness, and dash, was mainly due the allied success. Their casualties show that the hardest of the fighting fell to their share, and the British commander acknowledged officially the valuable assistance to his fighting line rendered by Major Quinton and Captain Taylor of the Fourteenth Infantry. Our losses were 10 killed and 55 wounded in the Fourteenth, and 9 wounded in the Ninth. The British had 6 killed and 38 wounded, of whom 24 were slightly wounded, besides a fatal case of sunstroke. The Russian commander reported, immediately after the fight, 2 officers and 116 men wounded; a later account made it 7 killed and 20 wounded.

The two days' marching and fighting had been most fatiguing from the great heat and the dust of the shadeless roads. The high maize being too thin to shut off the direct rays of the sun, but, extending for miles in all directions, effectually cut off any breeze, and left the air still and loaded with the dust particles raised by the moving men and animals. All were so exhausted that it was decided to halt at Yangtsun one day for rest and to bring up the supply trains.

When the expedition started from Tientsin this point had been the immediate objective. Its position at the crossing of the river by the railroad made it a point of strategic importance in a march on the capital. The allied commanders held another conference here and agreed upon a definite order of march. All were to proceed on the right bank of the river, the Japanese leading, followed by the Russian, American, and British contingents, in the order named. The French, on account of defective transport service, remained at Yangtsun.

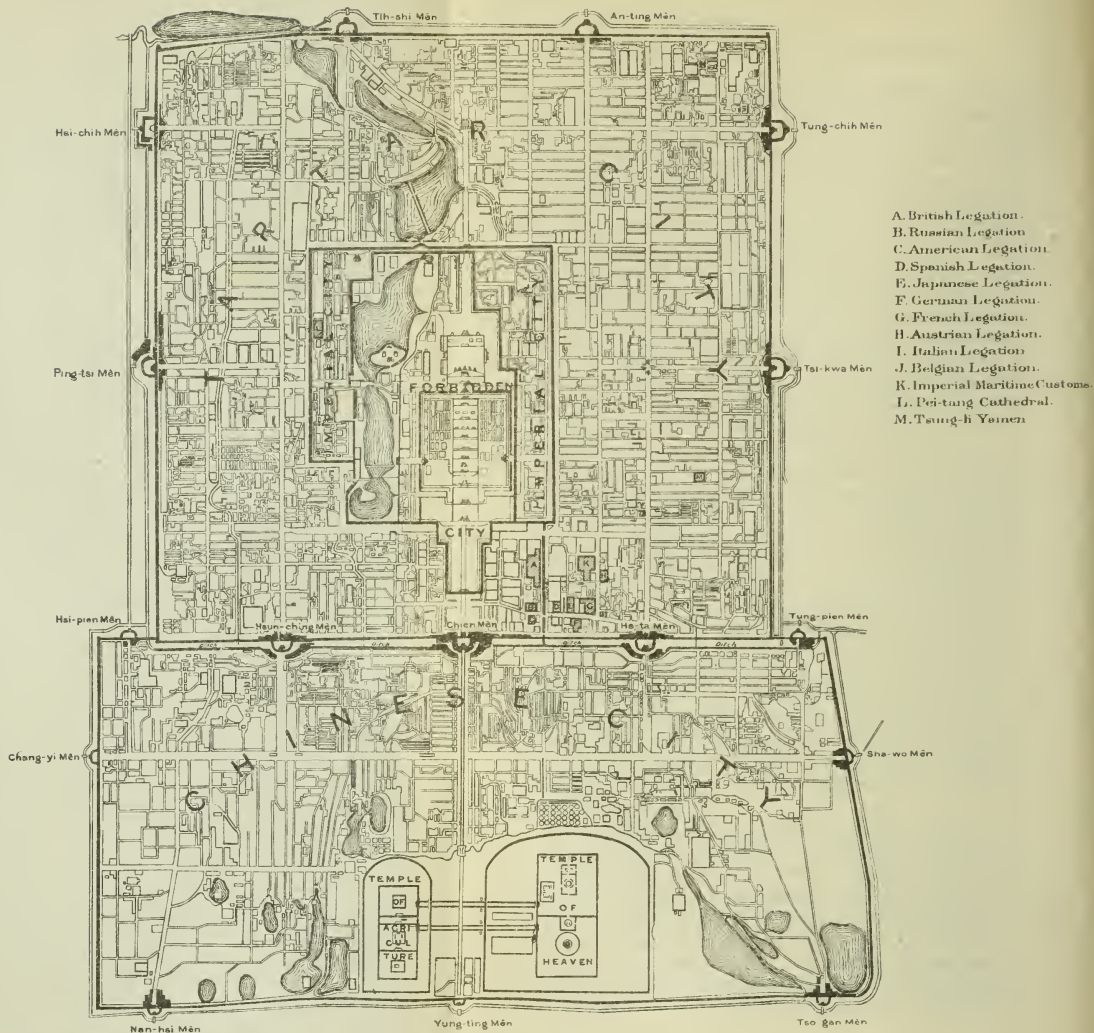
On August 8 the troops again took the road. A great deal

has been written of the fatigue and hardships of the march from Tientsin to Peking, due to heat and dust, the scarcity of good water, and of supplies, on account of the inadequate transport, but the necessity for haste made them unavoidable, and all bore privation with patience, if not with cheerfulness. The march of this day brought the main body to Nantsaitan, where it rested for the night, and on the 9th it again started. The Japanese, still in the advance, had a brush at Hosiwu, where they shelled the Chinese position, and after some sharp skirmishing drove them out and occupied the town before any of the allies came up. The march of the following day, the 10th, brought them to Matow, which is described as being strongly fortified. It was not a long march, about 12 miles, but the conditions made it most trying, and all suffered, stragglers of every nationality being numerous along the line of march. The 11th of August was somewhat cooler and a slight shower of rain was a welcome relief.

The Japanese reached Changchiawan in the forenoon, and, after making a strong reconnoissance, discovered the Chinese in a position about 3 miles south of Tungchow, from which they were dislodged by means of artillery fire, the enemy retiring into the city. Tungchow is the most important place between Tientsin and Peking and is a great depot for all kinds of supplies for Peking. It is a walled city, and might, if defended, have proved a formidable obstacle to the progress of the allies, but early on the morning of the 12th, when the Japanese were preparing to attack, they found that it had been evacuated during the night and the place was occupied without opposition; all rested there during the 12th. The French entered the city immediately after the Japanese; being few in numbers and less burdened with impedimenta, they had been able to push on from Yangtsun and pass the rest of the allies.

The expedition was now within 13 miles of Peking, and plans and preparations were made for the attack on the city. A conference was held on the 12th at which an advance on the 13th in four columns was agreed on, each contingent to concentrate about 5 miles from the walls, when another meeting of the commanders would arrange the details for the attack to be made on the 15th. The American column was to move on a line south of the canal, running from Tungchow to the north gate of the Chinese city (Tungpienmen); the Russians

PLAN OF PEKING.



- A. British Legation.
- B. Russian Legation.
- C. American Legation.
- D. Spanish Legation.
- E. Japanese Legation.
- F. German Legation.
- G. French Legation.
- H. Austrian Legation.
- I. Italian Legation.
- J. Belgian Legation.
- K. Imperial Maritime Customs.
- L. Pei-tang Cathedral.
- M. Tsung-hi Yamen.

0 1 2
Approximate Scale of Miles.

to pursue a parallel course on the north side of the canal; the British to march to the south of the Americans, and the Japanese to move north of the Russians, over the ancient stone causeway that ran to the eastern gate of the Tartar city, the Tsihuamen or Tsekwamen.

The attack was precipitated on the 14th by the Russians, who, instead of halting as agreed upon, are said to have continued their advance of the day before toward the walls, and during the night attempted to surprise the Tungpien gate. They were met by a hot fire, and becoming involved had to continue the fight, whereupon all the allies pushed forward to the attack, each advancing as rapidly as possible on the particular gate that lay in their line of march. English and Japanese papers alleged that the time agreed upon by the allies for the attack had been anticipated by the Russians, who expected to enter the city without much if any fighting, and thereby gain the prestige and any other advantages that would result from the prior occupation of the city by their troops.

The American line of march brought them to the Tungpienmen, where the Russians were engaged. They had advanced along the left of the canal under good cover, Captain Reilly's guns shelling the Tsekwamen from a hill offering a favorable position for this purpose, thereby assisting the Japanese in their attack on this gate. In face of the fire of Chinese sharpshooters an American company scaled a corner of the wall by the Tungpien gate, about 11 o'clock in the forenoon, and then the Americans and Russians crowded through the gate into the Chinese city, the former fighting their way westward parallel with the wall, from which the enemy had to be driven step by step.

The attacks by the Japanese, Russians, and Americans had the effect of concentrating the forces of the enemy to defend the threatened points, leaving the east (Shawo) gate of the Chinese city free to be entered by the British, who had marched on the left of the allied columns; and the Americans fighting the Chinese on the wall, enabled the British to move without opposition, and to take advantage of the situation by making their way through the water-gate tunnel under the wall, being the first to reach the legations. The Americans entered through the same passage an hour or two later, somewhat disappointed not to have been the first in, but rejoicing in the

successful accomplishment of the object of the expedition—the rescue of the legations. Our casualties on this day were not heavy; in the Fourteenth Infantry there were 8 wounded, 1 in Battery “F,” and an officer and 2 men of the marines.

The resistance at Tsehuamen and Tungchihmen to the Japanese attack was most obstinate, and was only finally overcome at the Tshuha gate some hours after dark, and at a cost of many casualties among the attacking force, which, having finally succeeded in blowing up the gate and setting the watch tower on fire, rushed in with the greatest dash and enthusiasm, in the face of the heavy fusilade from the Chinese on the wall. Gaining the top, the Japanese infantry drove the enemy along the wall in the moonlight and fully avenged their own losses at the gate. The Russians had likewise a hard fight, lasting fourteen hours, at the Tungpien gate, and suffered heavy losses, having 1 officer (Colonel Antinkoff) and 20 men killed, and 5 officers and 120 men wounded.

Many Chinese were still in the Imperial City, and next day, the 15th, General Chaffee’s command attacked and carried in succession the different gates, including the one giving access to the Forbidden City, which was entered at 3.30 p. m. by a company of marines, who hoisted their flag over one of the buildings. They remained here until half past 5, when they were ordered to withdraw, leaving a guard at the gate. This was the first and only occupation of the Forbidden City by the allied forces.

From the wall at the Chienmen, which had been held by the Americans overnight, Captain Reilly’s battery shelled each of the great gateways before the infantry advanced. It was while directing these operations that he was killed by a bullet through the head. The withdrawal by General Chaffee from the Forbidden City was in deference to the sentiment that, that being the final evidence of victory, the occupation should be shared by all the allies, though it may be questioned whether any of the other allied commanders would under the same circumstances have shown the same self-restraint. In other parts of the city the work of clearing out the enemy was going on, the Japanese and Russians operating on the east and to the north, and the British in the Chinese City to the south. The casualties of the Americans during the operations of the 15th were 7 killed and 19 wounded.

The most important work now remaining to be accomplished was the rescue of the Catholic missionaries and Chinese converts at the famous Peitang cathedral and mission, which covered an extensive area inclosed by walls and located in the Imperial City near the west wall. An account of the siege of this place is given in Lieutenant Lindsey's report, page 456.

On August 16 a combined Russian, French, and English force was organized to raise the siege of the Peitang, and proceeded thither, meeting with some resistance and suffering some casualties in its progress. Before their arrival the operations of the Japanese in the northwest portion of the city had practically ended the siege, but the French had the gratification of being actually the first to enter the defended inclosure and receive a welcome from their fellow-countrymen.

With reference to the subject of looting in China the following quotation from the Tokio correspondent of the "London Times," in its weekly issue of December 28, 1900, is interesting: "Appreciations of the western soldier are now beginning to be written in Japan, not by the ordinary correspondent whose tendency to paint pictures rather than to sketch portraits renders his testimony apocryphal, but by sober men of business or of letters who, visiting China, have founded opinions of their own observations, or on converse with active participants in the Chili campaign. The estimates of these writers of the various units of the allied army differ as to their fighting capacities, but are uniform when they discuss conduct and discipline. All agree in placing the United States soldier at the head of the list. No excesses of any kind stand to his discredit. 'Excesses' in the vocabulary of these critics do not include the soldier's common fault of inebriety. No one claims any special virtue for the American in that respect. The appreciations deal solely with crimes, robbery, incendiarism, murder, and outrage. Not one of these is laid to the charge of the United States private. According to Japanese account, his behavior from first to last was that of a gentleman. It is noted that something of the kind might have been expected since a majority of the volunteers serving in the American ranks are men of education and of means, with too much self-respect to be betrayed into disgraceful acts merely because an opportunity offers to commit them with impunity."

The question of the occupation of the Forbidden City was the subject of much deliberation by the allies, and was

considered at several conferences of the commanders. On the one hand it was argued that, if it were occupied, it would be such a desecration of the most sacred places of China that it could never be reoccupied by the imperial court, while if not done, the whole lesson of the campaign would be lost on the Chinese, who would be made to believe that it was protected by their gods, and that the hated foreigners had really been, as usual, beaten by the invincible Chinese army.

An account of the formal ceremonies relating to the entry of the allied troops into the Forbidden City that were finally agreed to, is given in Colonel Dickman's notes in this volume, page 499.

The allies, having decided to take possession of the forts and town of Shanhaikwan, a British war vessel sent for the purpose arrived there on September 30 and demanded its surrender. The Chinese commander at once evacuated and the British flag was raised over the forts and the railway station, but having no men to spare for sufficient guards, the vessel returned to Taku with the news. After a conference of the admirals, an international fleet sailed at once for Shanhaikwan, consisting of three Russian, four German, two French, two Italian, one Austrian, and two British war vessels. Resistance had been anticipated, and plans made for a bombardment by the navy, and a landing of troops at Chingwangtao about 7 miles south of the city whence they were to march and storm the forts.

The Russian troops, to the number of 3,000, were the first to arrive in town, having marched along the railway from Tongku. They were soon joined by the forces of the other powers, that came by sea.

Shanhaikwan, in the north of the Gulf of Pechili, at the place where the Great Wall comes down to the sea, is an important strategical point covering the only practicable line of communication between China and Manchuria, and is also one of the principal stations on the railway, with large quantities of rolling stock and railroad supplies. There is no harbor here, but landing on the wide sandy beach is practicable in fine weather. It is protected by eight forts armed with Krupp guns.

The possession of Shanhaikwan was valuable to the allies in giving them a landing place in the gulf, connected by rail with Tientsin and Peking, and available when Taku was closed

by ice. It had also an important influence on the Russian operations in Manchuria, in closing the communications of the Manchurian forces with China, while opening up those of the Russians.

On October 17 Field Marshal Count von Waldersee arrived in Peking and took command of the allied forces. On the 21st the Fourteenth Infantry left for Manila. Military operations in the province of Pechili to the end of December were such as were ordered by the commander in chief, Von Waldersee. The United States had no part in the taking of Shanhaikwan and did not join in any of the numerous punitive expeditions organized by the different powers. Those in which they were engaged for military or humane purposes are referred to in General Chaffee's report of November 30, 1900.

OPERATIONS IN MANCHURIA.

Manchuria occupies the northeastern part of the Chinese Empire, has an area of 362,210 square miles, and is touched on the north, east, and west by Russian territory. It is the original home of the ancestors of the present ruling dynasty, and is known in China under the name of Loun-San-Chen, these syllables being distinctive parts of the full Chinese names of the three provinces of which it is composed, viz, Amur, Kirin, and Mukden, the populations of which are estimated at 2,000,000, 7,000,000, and 6,000,000, respectively.

The original plan for the construction of the Siberian railway through Eastern Siberia, along the Amur River, was abandoned on account of the great difficulties attending the building of the road between Stretensk, on the Shilka River, and Khabarovsk, the latter at the junction of the Usuri and Amur rivers, where the railroad runs south to Vladivostok. In 1896 Russia secured by treaty from China a concession for a railway, to run southeasterly through Manchuria, from a station on the Trans-Baikal section of the Siberian railway to a point on the line from Khabarovsk to Vladivostok. Work on this road was commenced August 10, 1897, at Poltava, a station on the South Usurian frontier, by the Chinese Eastern Railway Company, a corporation organized under the provisions of the treaty for the building and operation of the road. In the organization of this company, and the building and

management of the road, Russian interests controlled, and it was practically a section of the Siberian railway, running in harmony with it. When Port Arthur was acquired by Russia, in 1898, further railway concessions were received, and the building of a connecting line from there to the main line of the Manchurian railway was commenced. The southern portion of this branch, from Port Arthur, Talienswan, and Mukden, was opened for traffic on November 24, 1899. At the beginning of July, 1900, rails were being laid on this line at the rate of $1\frac{3}{4}$ miles per day, and work having been carried on from both ends simultaneously, it was expected that Vladivostok and Port Arthur would be connected by rail by the end of the month.

The length of the main line is 960 English miles, that of the southern branch is 650 miles. When work on the main line was first commenced it was expected to be completed by 1903, but this time will be much shortened by the system, early adopted, of working simultaneously at different places. The ordinary labor of building the road was done by Chinese coolies, of whom nearly 100,000 were employed, and the line was protected by about 6,000 Cossack guards, distributed in small parties along the line and its branches.

When the Boxer movement spread into Manchuria, early in June, its first manifestations were hard to distinguish from the operations of the Hungus, or native Manchu brigands, who had frequently harassed and annoyed engineers, surveyors, and small working parties on the railroad from the commencement of the work. But the excesses increased along the lines of the Chinese eastern railway, consisting of the destruction and robbery of railroad material, as well as in a threatening attitude toward the personnel building the road, and when the accounts of these were first received in St. Petersburg, comprehensive orders were given, June 25, for the mobilization of the troops in the Amur military district, for increasing the strength of the troops of Eastern Siberia, and of the garrisons of Vladivostok and Port Arthur, and a couple of weeks later for the transfer of troops from European Russia, while the area of mobilization was extended to the district of Siberia and the territory of Semirechensk of the district of Turkestan, including the Cossack troops in both regions. A battalion of fortress infantry was also organized for Nicholsk.

The rising in China did not seriously affect the region of the Manchurian railway until after the end of June, with the exception of small disturbances at Haicheng, Liaoyang, and Mukden, which were soon suppressed, and for which the local Chinese authorities disclaimed any responsibility, while they assured the agents of the railway of their unalterable friendship for Russia. As late as July 3 the Chinese governors (tsiantsiouns) of Tsitsikar, Kirin, and Mukden guaranteed the security of their provinces if only the Russians would not begin hostile action. Whether they were sincere or not the movement was probably too strong for them to resist, and it was soon joined by several Manchurian officials, as well as by some of the Chinese troops. On July 4, at Mukden, the governor was arrested by his own assistant or deputy, who headed a large body of rebels against Tielin. The coal mines belonging to the railway at Yantai were attacked, the railway bridge at Liaoyang was burned, a Catholic mission near Mukden was destroyed and the church burned, and shops with European wares plundered. The tsiantsioun of Tsitsikar informed the Russian railway engineers of the calling out of the Chinese troops in Northern Manchuria to protect the railway against a possible rising of Boxers. Later, after the appearance of a seditious proclamation at Kirin (Ghirin), the governors of Tsitsikar and Kirin said they could not answer for the conduct of the Chinese soldiery in case of an attack on the Russian colony.

About July 6 or 7 an alleged imperial edict was published by the Chinese authorities at Kirin, directing the Chinese troops to unite with the Boxers, and on July 8 a communication, joined in by all the governors, was sent to the chief engineer of the railroad requiring all Russian railroad officials and guards to leave Manchuria under Chinese escort, in consequence of an imperial edict to transfer the line and property to the care of the Chinese. On July 10 a regular Chinese force came to the station at Hailar (Chajlar, Khailar, Khalar), a Manchurian town near the Trans-Baikal boundary, and threatened the Russians with war unless they withdrew.

Compliance with these demands was compelled by superior force, and on the western section engineers, officials, workmen, and guards sought and found refuge at Staro-Tsurikhait, while on the eastern part the refugees were sheltered at Nicholaevsk. The Chinese burned station buildings and otherwise

damaged the road after the Russians left. While these occurrences were taking place at many different points along the railroad, the Chinese minister at St. Petersburg was assuring the Russian Government that the events then taking place in Manchuria were not in accordance with the views of the Peking Government, and that he would make serious representations to his Government of the grave consequences that would follow if hostilities in Manchuria did not cease.

The disturbance in the northern and central parts of Manchuria had more the appearance of having official sanction, and of hostilities being carried on by the regularly organized troops of the Chinese Empire, than that in the southern part, where the popular or Boxer element was more in evidence. This may be explained by the latter being more accessible to the Shantung and Pechili provinces, and more likely to have been permeated with the notions having their origin in these provinces, and also from the fact that when the Taku forts were taken the soldiers of the Chinese garrisons decamped in all directions, many of them going north into Manchuria, and helped to spread the troubles by organizing or joining lawless bands of rioters, who scoured the country, committing outrages on persons and property.

Harbin (Kharbin) lies right in the center of Manchuria, on the Sungari River, where a large railroad bridge is in process of construction. It is the junction point of the main line with the southern branch running to Port Arthur. The Manchurian Railway is in three divisions, the western, eastern, and southern, each in charge of a constructing engineer, and is further divided into 22 sections. The Chinese eastern railway starts from Kaidalovo, a station on the Trans-Baikal section of the Siberian railway, passes the Chinese boundary at the village of Nagadan, and runs to Hailar (Khailar, Khalar), a place of 3,000 inhabitants, thence to Tsitsikar, Harbin, Ninguta, to Nicholaevsk on the Usuri railroad, about 60 miles north of Vladivostok. Harbin, where the chief engineer resides, is the headquarters of the construction corps, the principal depot of railroad supplies, and the point from which all the varied activities of railroad construction received their initial impulse.

Material, etc., received at Vladivostok was from there sent by rail to Khabarovsk, and thence by the Sungari River to Harbin, where it was distributed east, west, and south on the

three divisions of the road. A considerable Russian settlement had grown up at this point, and, when the disturbances came, there were several thousand people, employees, workmen, etc., with their families, living there. The number was increased by accessions from points along the railroad of people driven in by the Boxers, French and English missionaries and other refugees from the Liaotung peninsula, including large numbers of Chinese converts whom the Russians had resolved to protect.

At Harbin, when the Chinese governor demanded the transfer to him of the railroad and equipments, under the plea of guarding the same, the demand was refused, and the governor general of the Amur (General Grodekoff) was appealed to for help. Meanwhile everything possible was done for defense by General Gerngross, the commander of the Manchurian Railway guards, and Chief Engineer Yugovitch, all the outlying detachments that could reach the shelter of Harbin being concentrated at that place. The region from Harbin south to Tielin was one of the most disturbed districts, and by the middle of July the Russian guards were harassed by nearly 18,000 Chinese troops and Boxers. From about July 10 they were cut off from communication with the outside world, but detachments for their relief were quickly organized and dispatched, one from Khabarovsk, going up the Sungari River, another from the Usuri district (Nicholaevsk), and a third from the Trans-Baikal region, each detachment having a strength of from 7,000 to 9,000 men. The detachment from Khabarovsk, under General Sakharoff, proceeding in boats, had on its way captured the fortress at Bayantum, and by July 28 reached Siansin, a distance of over 500 versts (332 miles) from its starting point. Here it had a fight with about 4,000 Chinese, who were driven off, and the town, an important one of about 50,000 inhabitants, was captured.

Siansin is situated at the junction of the Sungari and Mudantsian rivers. The Russians bombarded the town for four hours, and, while the bombardment was in progress, the Cossacks waded a stream up to their necks, and drove the Chinese back at all points. They had stoically endured the cannonade, and endeavored to oppose the advance of the Russians from behind cover, but, the advance being persisted in, they finally threw down their arms and ran away. The Russians took many guns, and had only 1 man killed and 6

wounded, while the Chinese losses were said to have been enormous.

No further serious opposition was encountered, and on August 3 the detachment arrived at Harbin.

On July 24 some 2,500 persons left Harbin on two steamboats and six barges, eventually reaching Khabarovsk in safety. On July 26 the Chinese made an attack on the landing place on the river, where all the property and provisions of the besieged had been deposited, as being the most convenient spot, if their rescuers came, as looked for, up the river. The Chinese were repulsed, with the loss of three of their guns, which were used against them on the occasion of their next attack on July 30, when they approached from the direction of Ajehe (Nje-Khe), on the east of Harbin. The Russian advance guard, 7 miles from Harbin, successfully opposed the Chinese attack, compelling them to take shelter behind some buildings, from which they retired after dark. The Russian loss in these two affairs—3 officers and 57 men killed, and 93 men wounded—shows the fierceness of the attacks and the severity of the fighting, as it is to be presumed that the losses on the part of the assailants were even larger.

The Russian success at Harbin was most important and timely; the relief column arriving when the ammunition of the defenders was running low, and when the Chinese were planning a determined attack to be made by 10,000 men, assisted by cannon, from all the towns in the district. After Harbin was relieved, measures were taken to make it secure from attack, by the construction of strong fortifications, the river was cleared by expeditions directed against hostile towns and villages, and preparations were made to repair the railroad and resume construction work. The advance guard of the column from Nicholaevsk, in the Usuri district of the Maritime province, commanded by General Chicagoff, arrived at Harbin about the same time as General Sakharoff's (August 3), having, on its march, had several engagements with the Chinese, the most important of which was at Ekho, where it captured and destroyed a considerable Chinese fortress.

Hun Chun (Koun-Choun) is an important fortified town about 25 miles from the Russian and Korean frontier. Its capture was ordered by General Grodekoff, as the Chinese troops assembling there threatened the Russian frontier and

menaced the communications of the column operating from Nicholaevsk. The place was taken July 30 by General Aigoustoff's force from Novokievsk, of three regiments of riflemen, two sotnias of Cossacks, one mountain and one mortar battery, after a hard fight in which the Chinese lost heavily. The town and its environs were deserted by the inhabitants, many fleeing half naked. The Russians lost 2 officers and 6 men killed, and 4 men wounded.

Blagoveshchensk is a Russian town of about 32,000 inhabitants, and 3,700 houses, mostly of wood, and is situated on the left bank of the Amur at its junction with the Zeya. It is nearly in the middle of the line of waterway—the Amur—that connects the ends of the Siberian railway, the river being traversed during the season of navigation by steamboats, while in winter travel goes on over the ice. It was originally a military post simply, named "Oustzeisk," and was established in 1856, becoming a city in 1858 and receiving the name Blagoveshchensk, meaning "good news," because here the governor, Mouravieff, proclaimed the good news of the annexation of the Amur region to Russia. It is the chief place of the Amur region, the residence of the military governor of the district, and the center of military, civil, and judicial administration.

On July 14, after the Russians had started the detachments for the relief of Harbin, the Chinese to the number of 8,000 made their appearance, and opened fire on Blagoveshchensk with a number of guns, besides firing on the Russian military transports from many points on the Manchurian side of the river.

When the bombardment opened so unexpectedly, the Russians had only 2 companies of their local troops there, some improvised militia, and a few Cossacks from the surrounding villages. The bold attack by the Chinese was probably due to their knowledge that the Russian frontier was stripped to make up the Harbin relief parties, and to their belief in the genuineness of the imperial edicts declaring war on Russia, which they communicated to the Russian military authorities.

On July 15th General Gribovsky's small relief column marched in from Stretensk and replied to the Chinese fire with a battery of six guns, and on July 17, receiving further reinforcements of a couple of battalions, an effective rifle fire was directed on the Chinese, who persisted in their

cannonade until evening, when their artillery was gradually withdrawn.

The Chinese are said to have had about 18,000 men and 45 guns along the right bank of the Amur from Aigun to Sakhalin, opposite Blagoveshchensk. The latter town was defended for nearly two weeks by two battalions of local troops, one reserve battalion only partly armed; about 1,000 militia armed with old-fashioned rifles, four sotnias of Cossacks, eight light field, and two boat guns.

On July 27 reinforcements arrived from the Trans-Baikal region under General Renenkampf, and from Khabarovsk under Colonel Servianoff, consisting of nine battalions of infantry, eight sotnias of Cossacks, 30 field guns, 2 mortars, and 12 bronze guns; offensive measures were resolved on by the Russians. Early in the morning of August 2 they crossed the river in two columns and seized the half-burned town of Sakhalin. The next day, August 3, the march toward Aigun was taken up. Aigun is over 20 miles from Blagoveshchensk by water. It is an old town containing about 15,000 inhabitants, of whom many are Mohammedans. It has a fort or citadel, is the residence of a local governor, and in the early days figured frequently in disputes between the Russians and Chinese over rights of passage on the river. At the village of Kolushan the Chinese were encountered and driven back, the Cossacks capturing in the action two long-range steel guns. The troops remained here for the night, and the next day, August 4, the advance on Aigun was resumed. The Russians opened fire with mortars on the town and a fortified camp close by, setting fire to many houses, and causing many noncombatants to fly in the direction of Tsitsikar. The fighting was obstinate, and was marked by the aggressive character of the tactics of the Chinese, who attempted to turn both flanks of the Russians, while offering a determined resistance to the attack of their own center. The Chinese were successively dislodged from four strong positions, some of which they attempted to reoccupy, but finally retreated, partly along the bank of the Amur, but mostly toward Tsitsikar, pursued by the Russians.

The Russian artillery was so well handled in the fight that it is given credit for the small number of casualties on their side; 1 officer and 10 Cossacks killed, and 2 officers and 24 men wounded. The captures included several siege and field

guns, quick-firing pieces, many Mauser and Peabody rifles, and a variety of warlike stores, powder, projectiles, etc. Primitive Chinese weapons, standards, and Boxer flags were also among the spoils.

On August 10 the pursuers came up with the Chinese at the village of Sinchan, about 27 miles from the Amur. The Chinese were the rear guard of 4,000 infantry, 5,000 cavalry, and 12 guns, posted in a strong position on the eastern slope of the pass of Khingan, in the Little Khingan range. The Russian advance detachment attacked, and was, for a time, hard pressed, owing to the superiority of the Chinese numbers, but a successful flank attack and the timely arrival of reinforcements compelled the Chinese to retire. The pass itself was not won until August 12, and then only after a bloody fight and a successful turning movement carried out at night by the Russians. Four Krupp (67-millimeter) guns were taken, besides ammunition, etc.

The Chinese retired by the main road toward Tsitsikar, followed on August 16 by the Russians, who, in succession, occupied Monokhe and Mergen. At the latter place a Russian garrison was established, and here the Chinese asked for a cessation of hostilities, which was not agreed to. From captured correspondence it was learned that the Chinese commander and his chief of staff were both killed in the fight at Khingan (Chingan-Hingan) Pass. On August 25 the Russian vanguard crossed the Nemer, a tributary of the Nonni, where it rested for a short time, after which it moved to a position about 56 miles from Tsitsikar. Continuing the advance, on August 29, being within 7 miles of the town, General Renenkampf turned off southeast, so as to approach it along the road from Harbin. The Chinese infantry, observing the turning movement, abandoned its position without firing a shot. The Russians subsequently formed up in battle array about three-quarters of a mile from the town and sent a message to the tsiansioun demanding unconditional surrender, and a request for his attendance in person at the Russian headquarters, an hour being given for compliance. A few minutes later it was noticed that the Chinese troops were moving southward, at the same time that the Chinese chief of staff and the city officials met the Russians, who assured them that the peaceful inhabitants would not be molested. The Chinese troops were ordered not to move, but as they

began to retire and seek cover behind the nearest buildings, the Russian artillery was ordered to open fire, and the Cossacks endeavored to intercept them, pursuing them for about 3 miles. The Chinese force at Tsitsikar numbered 2,700 men. The governor had disappeared and was at first reported to have fled with the troops, but some Cossacks subsequently met a mounted Chinese escort, who said they were carrying away his dead body. This was the official who had threatened to burn Khabarovsk. It is supposed that when the Russians sent for him he feared they intended to take him prisoner and therefore committed suicide.

The detachment commanded by General Orloff from the Trans-Baikal was slow in organizing. The unsettled feeling among the nomadic tribes of the border between China and Russia, and the necessity of clearing the Chinese from the territory along the Argun River delayed his start, which did not take place until July 28, when he crossed the frontier near Nagadan. The Russian patrols there encountered the Chinese outposts, which were driven in, the Russians capturing 24 oxen and wagons. On July 30 part of his detachment attacked and drove back a force of regular Chinese troops, infantry, cavalry, and artillery, capturing a gun, flags, rifles, and ammunition. The commander of the Chinese and 200 of his men were killed. The Russian loss was 7 killed and 20 wounded. On the same day Hailar was occupied by General Orloff after defeating 5,000 Chinese under General Kwangdo, who escaped with a bodyguard of 600 cavalry. Over 2,000 Chinese are reported to have been slain, many throwing themselves into the river Hailar to avoid pursuit, while the inhabitants fled toward Tsitsikar. The Russians took 8 prisoners.

The Russian success was so complete that a strong impression was made on the wavering Mongol nomad bands, many of whom came in and offered their submission to General Orloff, who sent them away pardoned and satisfied.

The work of repairing the railroad and telegraph line was commenced as soon as Hailar was occupied, and all being quiet on the frontier, and on that section of the railway, General Orloff's detachment left Hailar on August 3. His advanced guard came up with the enemy near Djermete Station and engaged the Chinese, who after a long fight retreated, leaving a number of baggage wagons in the hands of the Russians.

On August 14 General Orloff's column again moved forward, his vanguard forcing the Chinese, 7,000 strong, from Yakshi, which the Russian main body occupied, while the vanguard moved forward to Mendukhe. On the 20th the main body moved to Mendukhe and on the 21st his cavalry reached Khargo, while his vanguard occupied Iretka. On August 24 he fought the Chinese, who held a strong position in the Djedin Pass of the Great Khingan Yange west of Orgo. The Russians took the pass after long fighting, capturing 6 modern steel guns with ammunition and 16 flags, including the white standard of the Chinese commander. The Chinese retreat was disorderly and they abandoned all their baggage. The Russians lost 3 killed and 11 wounded. This was the last fighting required of this column, and, marching unmolested, on September 2 it came in touch with the troops of General Renenkampf, at Tsitsikar. The Chinese troops had all retreated from this place, going south. Prisoners reported that the Chinese general, Pao, was killed in the action at Yakshi on August 14. He commanded the Chinese troops that threatened Harbin earlier in the campaign. Examination of the road between Tsitsikar and Harbin showed that it had suffered but little injury, and the telegraph line even less.

The capture of Tsitsikar cleared the main line of the railway from the presence of Chinese troops and left the Russians in control of its whole length of 950 miles. It ended the first phase of the Manchurian campaign.

The Chinese were pursued south from Tsitsikar by the combined forces of Generals Orloff and Renenkampf, marching over very difficult country. The advance reached the Sungari River on September 11, and a fight took place at the ferry. On the following day Bodune was occupied, and on the 13th and 14th the main body crossed the river.

General Orloff's command remained at Bodune as a garrison, while General Renenkampf proceeded with his force toward Kirin. His task was unexpectedly simplified by the fact that a telegram from Prince Ching to the governor general of Kirin province was received on September 19 by the Russian military governor, General Grodekoff, from the Russian state department. The telegram directed the Chinese governor to cease hostilities and to protect the railway. This was in order to facilitate peace negotiations, Prince Ching concluding his telegram by saying: "The danger threatening the dynasty calls for specially serious attention, and it is

most earnestly to be desired that all further complications should be avoided."

The telegram was forwarded to its destination through various channels, in the care of a trusted officer, and as a result, on the afternoon of September 24, General Renenkampf occupied Kirin without opposition, the Chinese soldiers laying down their arms. The city is the capital of the province of the same name. It is a large, important, and rich town of 250,000 inhabitants, situated on the upper reaches of the Sungari River, surrounded on three sides by a stone wall. Here were located small arms and powder factories, and a Russian church and school.

The country between Kirin and Siansin, through which runs the eastern portion of the main line of the Manchurian railway, is very populous, containing several millions of inhabitants. The work of restoring order through this region made necessary many expeditions directed against hostile towns and strongholds of brigands, numerous patrols being also required, on account of the scattered bands of Chinese that kept the country disturbed.

SOUTHERN MANCHURIA.

By the beginning of July the whole of South Manchuria was in a state of disturbance, the railroad and telegraph lines had suffered much damage, and many outrages had been perpetrated on foreigners. Chinese soldiers collected in large numbers near Inkau, Mukden, and other places on the railroad. The Russians promptly occupied Tashitsao and Inkau, to which points detachments were sent from Port Arthur. From Tashitsao a short line of railroad runs to Inkau and Naichwang, where it meets the extension of the Pekin, Kinchow road.

The southern detachments of the railway guards, under Colonel Mischenko, who were cut off from Harbin, had to fight their way south, first to Liaoyang, where they were attacked on July 7 and obliged to retire to Aisantsian, where they were surrounded by the Chinese. They were finally rescued by a detachment from Tashitsao, after losing 48 men, killed, wounded, and missing. Other small parties of guards, whose retreat to the south was cut off by the Chinese, succeeded eventually in reaching Korean territory with great difficulty and after incurring many casualties.

The railway stations south of Tashitsao had also been guarded by small parties of Russians, while the towns in their vicinity were occupied by Chinese troops provided with artillery. From the middle of July these isolated detachments had been subjected to repeated attacks by the Chinese troops. On July 26 the railway station at Kaichou was burned, and Tashitsao was attacked by a large force of Chinese, who advanced in two columns from the north and the east, but were repulsed.

On July 27 the Russians, under Colonel Khorunjenkoff, consisting of one regiment of rifles, a light battery, and a half sotnia of Cossacks, attacked and captured the fortified town of Sunechen (Hiung-yo-tcheng), the station south of Kaichou. On July 31 reinforcements of artillery and infantry having arrived at Inkau, General Fleischer marched from that place on Kaichou, Colonel Khorunjenkoff being directed to move from Sunechen at the same time and attack the city from the southeast, while the Cossacks from Tashitsao were to cut off their retreat. The plan to capture the Chinese miscarried, Colonel Khorunjenkoff having, before receiving the order, attacked on the 1st of August with his own force, and had captured the city, taking twelve guns of old pattern, as the column under General Fleischer arrived. Fatigue prevented pursuit. After the taking of Kaichou, the three detachments were united under the command of General Fleischer. The port of Niuchwang was occupied by the Russians on August 4.

It was now decided to drive the Chinese from Haicheng, where, on August 1, they had burned the station, rolling stock, bridge, etc. Garrisons were left at Inkau, Tashitsao, and Sunechen, and the Russians started on August 10, defeating parties of the enemy on the 10th and 11th and taking four guns. At daybreak on the 12th the intrenchments in front of the city were carried and the city taken.

General Fleischer's force consisted of one regiment of rifles and parts of two other regiments, two companies of railway guards, two Cossack sotnias, and four guns. The Russians had 7 men wounded, while the Chinese, estimated at 5,000, are said to have lost 500 killed and wounded. They retreated to the hills east of the town, leaving two more guns behind. The railroad was now clear to Haicheng, and the Russians remained here for several weeks preparing for further

operations. At Mukden the Chinese were reported to be 5,000 strong and well supplied with artillery. About the 1st of September reports were to the effect that the Chinese were assembled at Old Niuchwang and Liaoyang, about 30,000 strong and covered by advance guards. Further reinforcements for the Russians reached Inkau, and General Subbotich took command of all the troops operating in this section. These now comprised eleven battalions of infantry, 40 guns, two sotnias of Cossacks, and four sotnias of railway guards. Three columns were organized, the left, under General Fleischer, of six battalions, 10 guns, and two sotnias of Cossacks, to march on Liaoyang by way of Old Niuchwang; the center column, Colonel Artamonoff (five battalions and 26 guns), marching by the direct road, while the flying column of Colonel Mischenko, of four sotnias of the railway guards and 4 guns was to protect the right flank of the center column.

The general operations in Southern Manchuria were directed by Admiral Alexieff, the principal military movements being conducted at first by General Fleischer and afterwards by General Subbotich.

On September 26 the safety of Inkau and Niuchwang being assured, and the railway between Haicheng and Tashitsao repaired, General Subbotich's forces resumed the advance. Old Niuchwang was occupied after a sharp fight, the Chinese retiring to Liaoyang. The next day Shaho, an intrenched position on the railroad, was taken after a spirited fight, in which the Russians lost 8 killed and 25 wounded. On the 28th the Russians neared Liaoyang, where the enemy barred the way by holding a strong position in front of the town, along the crest of a hill difficult of approach.

The Russian attack was made in three columns. One, Colonel Mischenko's, was directed against the Chinese left flank, where the fighting began, the Chinese right being threatened by General Fleischer. Colonel Artomonoff commanded the column that moved against the front of the Chinese position about half past 8 in the morning, meeting artillery fire, which did not, however, inflict much damage, owing to the failure of the shells to explode after striking the soft ground. Before 11 o'clock General Fleischer's movement had silenced the Chinese guns on that flank and only a feeble rifle fire opposed the central column, which soon occupied the position from which the Chinese had fled, leaving

behind them food, rifles, and ammunition. Two Krupp guns and one Maxim were also taken.

The Russians fired at the retreating foe, but were unable to pursue from lack of cavalry and the great fatigue of the men due to the intense heat and their strenuous exertions. At half past 2 Liaoyang was occupied by General Fleischer, though Colonel Mischenko's detachment did not arrive until after 5, having met a more obstinate resistance in his front. The Russians had 16 men wounded in the day's fighting. The loss of the Chinese is not stated.

On September 30 the Russians moved out of Liaoyang and marched to Yantai (Yen-thai), the Chinese giving way in disorder and flying in all directions. On October 1, the advance party of the Russian vanguard reached the village of Baitaipu, 8 miles from Mukden. Here the Russian commander received a petition, written in English, from the merchants and Christians in Mukden, begging him to occupy the town as soon as possible. Inquiry among native inhabitants and Chinese prisoners elicited the information that anarchy prevailed in the city, which had been deserted by the Chinese authorities, and was being plundered by the Chinese soldiers. On the afternoon of the following day, October 2, the city was occupied by the advance detachment of the Russian vanguard, which received only a desultory fire from the Chinese, who immediately took to flight, firing their rifles as they ran through the streets.

The imperial palace and the gate of the inner town were at once taken possession of by the Russians, and the next morning, October 3, the Russian vanguard marched into and through the city, taking up their quarters outside the wall on the north side. In the afternoon the main body arrived and pitched its tents on the plain on the south side of the city.

Great quantities of military stores were found in the city, over 50 Krupp and Maxim guns, 8,000 shells, about 7,000 rifles, 20,000,000 cartridges, gunpowder, etc.

Detachments were sent out to clear the railway lines, both north and south, one under General Mischenko proceeding to Tielin, which was taken on October 6, and connection made with the forces under General Renenkampf.

Hidden stores of all kinds were found in Mukden as search was made, and in examining government buildings to

determine their suitability for quartering troops, it was discovered that most of the important ones had been mined by the Chinese, and only the prompt occupation of the city by the Russians had prevented their destruction.

The capture of Mukden finished the large operations of the Manchurian campaign, but much remained to be done in the pacification of the country, the suppression of roving bands of disorganized Chinese soldiers and Boxers and of robber bands of Manchu brigands. Some of the expeditions for this latter purpose were of considerable magnitude, where long-established strongholds of hungus had to be attacked and destroyed. Operations of this character were carried on to the end of the year.

Though Manchuria was now practically entirely controlled by Russia, that country disclaimed any intention of annexation, and in November invited the Chinese Government to nominate governors to resume administrative functions in the several provinces from which their predecessors had been expelled. Their authority is exercised under limitations prescribed by the Russians, who, in addition, reserve to themselves a zone extending along the railway, the maintenance of tranquillity on which is secured by their own troops.

The losses of the Russians in the Pechili and Manchurian campaigns, up to November 1, 1900, were 23 officers and 257 soldiers killed, and 67 officers and 1,305 men wounded.

MOBILIZATION AND STRENGTH OF THE RUSSIAN ARMY IN EASTERN ASIA.

The following details are from official reports published in the *Russki Invalid* on various dates:

In the beginning of the Chinese troubles the first Russian troops landed in Pechili were taken from those stationed in Kwantung (Port Arthur), their places being filled by others sent from the Amur military district. On August 1 the forces in Pechili and Kwantung amounted to sixteen battalions, 32 guns, six Cossack sotnias, two sapper and two and a half railway companies.

It was believed that there would be no danger in thus withdrawing troops from the Amur, as no offensive operations by the Chinese were looked for in that region. Subsequent events having shown this view to be erroneous and that hostilities had been planned a long time beforehand by

the Chinese Government, orders were issued on June 25 for the mobilization of the troops of the Amur district, and on June 30 the reserves in the Kwantung territory were ordered out.

Meanwhile disturbances having occurred in Mongolia and Kuldja along the Russian frontiers, and the troops of the Amur district, even after being increased to war strength, being hardly sufficient for the necessities of the service in Manchuria and Pechili, instructions were given on July 1 to change the battalions of the first and second brigades of the infantry of the line of Eastern Siberia into regiments of rifles of two battalions each to form two additional brigades, the fourth and fifth; to increase the Vladivostok fortress regiment of infantry into two regiments of three battalions each, and to form at Port Arthur a fortress regiment of four battalions.

On July 6 orders were issued to transfer from European Russia to the far east the third and fourth brigades of rifles with their artillery and parks, one railway battalion, six companies of sappers, and one company of pontoniers, and on July 14 similar orders were given for the transfer of the first, second, and fifth brigades of rifles with their artillery and parks, the second battery (quick-firing) of the artillery of the guard, one battalion of sappers and twelve ambulances. Directions were also given to form another brigade (the sixth) from the third brigade of Eastern Siberia.

On July 21 the area of mobilization was extended to the troops of the Siberian military district, and to those of the Semirechensk district (belonging to Kurdestan) including the Cossack troops of the latter district.

After the taking of Peking the orders for the transfer of the first and second rifle brigades from European Russia to Eastern Asia were revoked, so that only the third, fourth and fifth rifle brigades were sent to the East, the third by land, the others on transports via Odessa. The strength of these brigades was 7,976 men—four regiments of 1,994 men each—with their artillery, three light batteries of eight guns each, besides the auxiliary troops mentioned.

On July 24 orders were issued for the formation from the troops then in the far East, and to arrive from Europe, of four Siberian army corps, including an expeditionary corps. As the troops from which these corps were to be formed were

already on hostile soil (only a small contingent remaining in Russian territory, while those sent from Europe were still at sea), these corps were organized only on paper and had no effect on the operations in China or Manchuria.

The first corps, headquarters Vladivostok, is composed of troops stationed in time of peace in the Ussuri and Primorski regions; the second corps, headquarters Blagoveshchensk, of troops serving in the Amur district. The third is formed of the small detachments stationed in the Trans-Baikal, the reserves of the Siberian military district, as well as the temporary reinforcements brought from Europe. The fourth (the expeditionary corps) was to be composed of the troops brought from Europe by sea.

The slowness of sea transportation, the interruption of communications on the Amur by the operations of the Chinese, and the inability of the Siberian railway to meet the enormously increased demands upon it, offered great obstacles to the prompt movement of troops and supplies. They were finally surmounted by the energy of the Russians, aided by the military incapacity of the Chinese. According to Russian reports; although men of the reserve to the number of 100,000 were called to the colors for the mobilization of the unorganized units, no delay took place, and the percentage of those not responding was very small. Some detachments were ready earlier than expected and consequently the organization of trains and other special services was delayed. The project of changing the Siberian reserve artillery unit of two batteries into four units of two batteries each had to be abandoned.

While the mobilization and transportation of the fighting troops were going on, it was necessary at the same time to form 16 reserve battalions, of which the 8 for the Amur district were only hinted at in the plan of mobilization. In addition there were needed 5 horse and foot Cossack reserve sotnias, 5 horse depots for 2,200 horses, 53 hospitals, 12 artillery parks, and 3 sanitary transports.

In the Amur district in one month from the date of the orders for mobilization, 5 Cossack regiments with a total of 27 sotnias; 2 infantry regiments with a total of 10 battalions, 1 foot Cossack brigade of 4 battalions, and 3 Cossack batteries were placed on a war footing. In the Siberian district 7 infantry regiments with a total of 35 battalions, and 1

Cossack division of the second and third class were mobilized. At the same time the whole population capable of bearing arms was called into service (including Cossacks who had not yet attained, or who had already passed the age at which they were liable to military duty), and were formed into organizations for frontier service. Reserve battalions and even recruits took part in the fighting.

The Third European Rifle Brigade reached Stretensk by the end of August and was transported by boat via the Shilka and Amur Rivers to Harbin to act as a mobile reserve. It did not arrive at Harbin until the beginning of October. The first detachments of the Siberian Cossack Brigade, and other units of the Third Siberian Army Corps reached the Trans-Baikal August 28. The Fourth European Rifle Brigade reached Port Arthur September 6 and the Fifth Brigade arrived at Vladivostok about the middle of September.

At this time 18 battalions, 25 sotnias, and 78 guns, mostly of the Second Siberian Army Corps, were available for an advance against Kirin from the north. The city surrendered without fighting on September 23.

The following table gives the strength and distribution of the Russian troops in Eastern Asia about the middle of October, when the principal military operations had ceased:

	Battalions.	Sotnias.	Guns.
Second Siberian Army Corps:			
In province of Tsitsikar	12	24	22
As reserve (the Third European Rifle Brigade from Third Siberian Army Corps)	8		
In province of Kirin	26	29	102
As reserve (Fifth European Rifle Brigade and 5 battalions of Sixth East Siberian Rifle Brigade)	13		24
First Siberian Army Corps:			
In Southern Manchuria, including the troops of Kuantung	21	9	34
Fortress battalions	2		
In Pechili	12	5	*44
Frontier guards in the Amur and Siberian districts	26	25	28
Fortress battalions	2		
In the Semirechensk district near Kuldja	8	22	28
Guards for consuls at Urga and Kuldja		4	4
Total	126	118	336

* Eight machine guns.

The total strength in Eastern Asia, including the troops brought from Europe, was 3,900 officers and 173,000 men. To assemble these forces of three times the ordinary strength of the Siberian troops, there were transported into the Trans-Baikal over the Siberian railway and across the Baikal Lake 54,410 men and 11,407 horses. By transport from Europe

10,107 men were brought to Vladivostok and 9,709 to Port Arthur. The total number of troops transported by rail and water to the military district of the Amur was 74,226 men. There was transported to Irkutsk by rail 22,610 tons of various military stores. Three thousand three hundred and ninety-four tons were carried by the Siberian railway to the Trans-Baikal, while 7,917 tons were brought over sea to Vladivostok and 10,460 tons to Port Arthur.

During October 5,400 men and 2,906 horses were brought over to Eastern Asia. The railway transported nearly 1,700 tons of supplies and there were sent by water about 2,100 tons. An idea of the difficulties encountered by the transport service may be gathered from the statement that within a period of three months there were carried from Stretensk over the Shilka and Amur rivers 46,209 men, 9,145 horses, and 4,370 tons of supplies. These included, besides war material, provisions, clothing, and medical stores sufficient to last over the first months of 1901.

The composition of the various columns operating in Manchuria, as first organized, was as follows:

Orloff: 4 battalions, 6 sotnias, 6 pieces of horse artillery. Rationed for two and one-half months.

Rennenkampf: 6 battalions, 3 sotnias, 34 guns.

Sakharoff: 4 battalions, 3 sotnias, 16 field guns, 10 siege guns, detachment of engineers.

Chicagoff: 2 battalions, 4 sotnias, 8 guns.

Aigustoff: 6 battalions, 2 sotnias, 22 guns.

Fleischer: 16 battalions, 8 sotnias, 76 guns, 2½ companies of engineers, 1 siege park.

Valkoff: 4 battalions, ½ sotnia, 4 guns (taken from the Chinese), ½ company engineers.

Immediately after the taking of Mukden, orders were issued for the demobilization of the troops in the east. This was desirable for military and financial reasons, as well as on account of the distress growing out of the scanty harvests, high prices, scarcity of laborers, etc., and it was carried out as fast as practicable. By the middle of December the troops in the Siberian military district were on a peace footing. Some of the seven infantry regiments had then been disbanded and formed into reserve battalions, and the two brigades to which they belonged seem also to have been broken up. A new reserve battalion has been formed in this district, increasing the number to eight.

In the territory of Semirechensk the troops were to be reduced to peace strength, and the detachments of the Turkestan Rifle Brigade to return to their original stations, except one battalion that was to remain temporarily with the artillery detachments, the Third Rifle Park and the number of wagons and ambulances actually needed.

With regard to the Cossack troops, the immediate demobilization of the regiments of the third class, the batteries and the brigade of infantry Cossacks was ordered. This order also applied to the regiments of the second class, excepting such of the latter as it was absolutely necessary to retain temporarily under arms.

Greater difficulty attended the reduction of the forces in Manchuria on account of the setting in of cold weather, necessitating the establishment of road houses or warming stations for marching troops, and because of the closing of navigation on the Shilka and Amur rivers by freezing. Besides, although the regular Chinese troops had been defeated and dispersed, roaming bands of Boxers and disorganized Chinese soldiers scoured the country, so that the 5,000 men of the railway guard were insufficient to protect the railway. For that reason it was determined to retain temporarily a portion of the invading troops in Manchuria. The First, Fourth, and Fifth East Siberian Rifle Brigades were selected with the expectation that one of these brigades would be returned to the Amur military district in the spring, where there were then only the Second and Sixth Rifle Brigades, the third being stationed in the peninsula of Kwantung. In the Amur military district the two infantry regiments incorporated into the First Siberian Infantry Brigade were reduced to reserve battalions, of which two new ones were organized.

After the cessation of military operations in the province of Pechili, the troops were gradually withdrawn to Kwantung to be returned to the military district of the Amur. The reinforcements brought from Europe had also begun to return before the end of December, and it was expected that the movement would be completed in the first six months of 1901.

The complete reduction to peace strength and the return of the European detachments will depend on the outcome of the situation in the East.

The "Valkoff" column, referred to herein, was formed at Shanhaikwan from troops that had marched in along the railroad when the place was occupied by the allies. It left there October 4, 1900, under orders to march on Kinchow and beyond, clearing the railway as it advanced. Continuing beyond Kinchow, it made connection with the troops from Inkau, who had, on October 6, seized the railway station on the right bank of the Liaoho near Niuchwang.



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Bangwaketsi (Betwen)

Richiri (Shadi)

Gabero

Zeerust

Otto Sloop

MAFERING

LIETENBURG

WENTERSDORP

WILHELMSDORP

JOHANNESBURG

PRETORIA

MIDDELBURG

BARBERTON

LOURDSBURG

DELAGOABAY

TONGALAND

FRANKFURT

HEILBRON

CRICQUALAND

OSHOFF

WINDSOR

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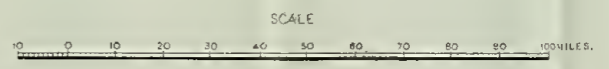
WINDSOR

WINDSOR

WINDSOR



MAP
OF THE
SEAT OF WAR IN AFRICA
PREPARED IN THE
WAR DEPARTMENT, ADJUTANT GENERAL'S OFFICE,
MILITARY INFORMATION DIVISION,
1901.



SIGNS.

- Main Roads.....
- Other Roads and Tracks.....
- Railroads.....
- Telegraph Line.....
- Kraals.....
- Mission Station.....
- Boundaries of States.....



