Infantry; Lieut. Col. J. P. Wisser, Inspector-General's Department; Lieut. Col. Lea Febiger, Inspector-General's Department; Maj. E. W. Howe, 27th Infantry; Maj. H. B. Moon, 10th Infantry, and Maj. O. M. Lissak, Ordnance Department. Each officer was assigned a special district over which he rode daily, keeping under his observation all matters which could effect the public order, the health of the city, the correction of abuses, and especially the relief of the destitute. They used my authority whenever cases of extreme destitution were brought to their attention, and immediately remedied such situations by orders for food, clothing, medicine, or shelter. These officers at 5 p. m. daily reported their observations, there being present at the conference General Funston, Major Devol, Major Krauthoff, Doctor Devereux, Colonel Jocelyn, Captain Haan, Major Dunning, and, when occasion required, Colonel Heuer. The entire situation was daily known by every officer charged with important duties.

To this system of inspection and the daily reports and conferences I attribute the satisfactory control of the many problems of local and current importance. The acuteness of observation, soundness of judgment, and pertinency of suggestions on the part of these officers were frequently noted by me. They played a most important part in the accomplishment of the great relief work undertaken by the army.

It may be added that the very harmonious work of these officers was most gratifying, especially in view of the fact that Colonels Pitcher, Sharpe, Pratt, and McGunnegle were all senior to Lieutenant-Colonel Lundeen, the inspector of the division. This is another indication of the willingness in emergencies of typical officers of high rank to take up duties of great public importance without advancing technicalities.

## LINES OF INFORMATION.

For prompt and efficient relief work means of communication by telegraph and telephone were necessary. The earthquake practically destroyed all lines of information within the limits of San Francisco. every office of the Western Union, Postal Telegraph, and Commercial Pacific Cable companies being interrupted. The Pacific States Telephone and Telegraph Company was rendered practically useless, few lines remaining and those in operation for a few hours only. Neither the Presidio nor Fort Mason, both within the limits of the city, could be reached by telephone or telegraph after the earthquake. In short the city of San Francisco had reverted to the ante-telegraphic period Until noon of the 18th a Postal Telegraph wire worked intermittently. From about 2.30 p. m., April 18, until 8.30 a. m. of the 19th there was no wire working out of the city. From 8.30 a. m. Thursday, the 19th, until Friday noon, one wire, that of the Southern Pacific Company at the ferry, handled by Mr. Le Coats, afforded the only telegraphic communication with the outside world.

Fortunately the Signal Corps of the Army was amply provided with field material. Under the personal supervision and direction of Capt. Leonard D. Wildman, Signal Corps, whose most efficient services are especially mentioned by General Funston, such speedy action was taken as established a military telegraph line between the Presidio of San Francisco and the outskirts of the fire, where an office was established by 10 a. m. of April 18 at Haight and Market streets

From that time General Funston remained in telegraphic communication with the Presidio, Fort Mason, Fort Baker, and Fort Miley, and next morning with the Southern Pacific Company's office at the ferry. Interruptions by fire and otherwise occurred to the Signal Corps lines, but by unremitting efforts they were of short duration. By the aid of the operators, instruments, and material of the Signal Corps the Western Union Company was enabled to open a city office on April 20 and the Postal Company on the 21st. The Commercial Pacific Cable system was restored on April 23.

The entire system of local communication in the burned district was dependent on the military telegraphic lines until May 10. Captain Wildman established a military system of 42 telegraph offices and 79 telephone offices, which connected with all the military districts, the Federal buildings, the railroad freight offices and depots, the offices of the Mayor and Governor, and other important points. While no service can be called indispensable by itself, yet it may be said that the efficient transaction of most urgent public business, the relief of extreme destitution, and other remedial measures in San Francisco were made promptly possible through the system of military telegraph and telephone lines thus installed and maintained. The volume of business may be judged from the fact that a thousand messages a day were handled, many of great length. It was not alone the number of messages, but the saving of time which facilitated enormously the extended work in hand.

From personal observations, the division commander confirms the statement that Captain Wildman's services were of special if not extreme value.

## EMERGENT SANITATION.

These duties were first intrusted to Lieut. Col. George H. Torney, deputy surgeon-general, U. S. A., who, in addition to his special work in command of the Army General Hospital at the Presidio, was serving as chief surgeon, Department of California.

The magnificent and well-equipped General Hospital was left by the earthquake with disabled power plant, deprived of its water supply, without telegraphic or telephonic connections, and its buildings more or less injured. These adverse home conditions did not prevent prompt medical relief. On the first day 127 city patients were admitted to the hospital, followed the next day by 145 others from hospitals burned or threatened. When the capacity of the wards was exhausted, the Hospital Corps barracks were vacated and fitted up for relief work temporarily. In addition, large numbers of refugee patients were received at the hospitals of the Presidio and Fort Mason, and other facilities were extended through tent emergency hospitals. On the arrival of Company A, Hospital Corps, a field hospital was established in Golden Gate Park to care for the sick among the thousands of refugees there having temporary shelter.

On April 20 Colonel Torney's cooperation with the civil authorities commenced at the request of Dr. J. W. Ward, president of the health commission of San Francisco. It was fortunate that an officer of Colonel Torney's ability and professional attainments was available for this work, which has been performed in an able manner. He acted as head of a committee appointed to insure between the army and civil authorities coordinate action relative to sanitation of

were carefully examined by division inspectors. Steps were then taken to enforce suitable sanitary regulations and to removing the campers through the medium of the Mayor, the health department, and the police.

Asst. Surg. J. R. Devereux, in charge of the medical data at these headquarters, reported, in part, on the conditions from April 18 to

June 23, as follows:

We have an account of 99 cases of typhoid fever—of these, 4 cases occurred prior to April 18; of the 95 remaining cases, 30 originated in April, 55 in May, and 10 in June. Of these 95 cases there are remaining 49, either in hospitals or in private houses, 17 have died, and 33 have been discharged as cured. Of the 49 cases remaining, there are 4 in the United States General Hospital that are, to all intents and purposes, cured cases, so that we have practically but 45 cases of typhoid fever remaining in the city. Of the total number of cases reported only 5 were derived from permanent military camps whose residence was sufficiently long to have made their infection possible at these camps. \* \* \*

Of the smallpox cases, there were admitted in the Smallpox Hospital in the month of April, 74 cases, with 9 deaths; in the month of May, 41 cases, with 2 deaths, and in the month of June, 8 new cases and no deaths, and there are 25 cases remaining in hospital. The total number of cases, therefore, is 123, with 11 deaths. There have been, approximately, in the permanent camps, 15,000 people (as an average) and only one case has originated in a camp under

our control.

It is too much to assume that this wonderful record of freedom from infectious disease among a population of 50,000 persons living in camps has been due to methods followed or precautions taken. It is, however, reasonable to assume that the above precautions, along the lines recommended by medical officers of the Army, served as preventives against the development of sporadic cases into an epidemic.

## MILITARY CAMPS.

The question of providing temporary shelter for the 200,000 homeless people who remained in San Francisco was facilitated by the mildness of the climate, the abundance of canvas, and the considerable numbers of convenient squares and public grounds. Three thousand tents were promptly available at the Presidio, and large numbers were later received. In every convenient spot outside of the burned district there speedily sprang up tent cities and temporary barracks, into which the destitute crowded as fast as they could be erected. Although the unburned houses were thrown open with the greatest freedom and generosity to stranger and friend alike, yet a week passed before the entire community was sheltered. In several places barracks of considerable extent were speedily erected. Those in Golden Gate Park and the Speedway were provided with excellent sanitary arrangements for sewage and refuse.

As early as May 1 I urged the extreme importance of constructing on public grounds additional temporary buildings for at least 10,000 people, but such action was not favorably considered by the relief authorities. The conditions under which lived many, outside of the army camps, were often insanitary, and it was speedily evident that concentration into large camps under military supervision would best insure the public health. Although recommending this scheme to the

Mayor, it was with the distinct announcement that the army would use neither moral stress nor physical force, relying upon the attractiveness of properly constructed, well-policed, and orderly camps

against others of heterogeneous character.

The system of permanent military camps was reorganized and defined by General Orders, No. 29, of May 13, under which 21 (18 in San Francisco) of the so-called permanent camps were eventually established under army control. In charge of this work was originally placed Lieut. Col. R. K. Evans, who was known as the commander of permanent camps. There were also detailed as assistants eight of the especially detached officers, besides the 1st Squadron of the 1st Cavalry, under Major Gaston, and Companies B, D, E, and F, of the 10th Infantry. This camp system was made an independent command, and the commanding officer of each camp was entirely responsible for discipline, the sanitation, and for the execution of all orders and regulations. In short, each camp was considered an independent military post. In addition to a chief surgeon for all the camps, a medical officer of the Army was assigned to each camp with suitable medical assistants in the way of enlisted men of the Hospital Corps, and with civilian physicians on the ratio of one doctor to each 700 persons. Upon the relief of Colonel Evans, on May 31, the command of these camps passed to Maj. Joseph A. Gaston, 1st Cavalry, under whose supervision they were brought to a high degree of perfection.

Entire responsibility for the sanitation was assumed by the division commander, the chief sanitary officer being responsible for the assignment of suitable medical officers for the efficient control of sanitary matters. They were particularly charged to devote their entire energies to the work of thorough sanitation, and proper arrangements were made for the removal of garbage and all other refuse. In addition to the inspection of the camp restaurants by the camp surgeon, there was eventually detailed a medical officer of the Army whose business it was to see especially that these restaurants were maintained in the best condition, sanitary and otherwise, consistent with the surroundings. As to the inmates of these camps, there were no restrictions on personal conduct or liberty save for three purposesthose of decency, order, and cleanliness. Unless occupants were willing to conform to those three simple rules they were obliged to forego the benefits of Government canvas, Government bedding, and relief stores. The camps are made attractive by first assuring order, cleanliness, and also by giving the occupants for a time coffee and sugar in addition to the three components to the ration issued elsewhere, namely, bread, potatoes, and meat. Gradually methods of general messing were introduced which had a tendency to cause those with money or credit to purchase their food and rely upon the Government only for shelter and bedding. At each camp was stationed a small guard to insure order and enforce the simple regulations formulated for the conduct of the occupants.

The Red Cross was asked to station at each camp a competent agent to look after the registration of the occupants, investigate cases of fraud or imposture, issue clothing, and determine the special needs of the applicants, particularly of those who could be placed on a selfsupporting basis. This agent was to be an understudy to the officer