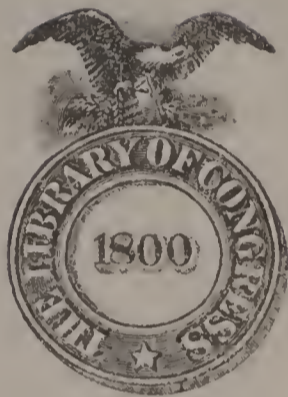


HISTORY OF
BASE HOSPITAL NO. 6

UNITED STATES ARMY





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THE HISTORY OF
U. S. ARMY BASE HOSPITAL NO. 6



COL. FREDERIC A. WASHBURN

George Clymer, ed.

✓
The History of
U. S. Army Base Hospital
No. 6

*And Its Part in the
American Expeditionary Forces*

1917-1918 ✓

With an Introduction by
HENRY ALDEN SHAW
Lately Colonel, Medical Corps, U. S. Army
Chief Surgeon, Base Section No. 2, A. E. F.



Boston, Massachusetts

1924

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INTRODUCTION

BASE Hospital No. 6, A. E. F., needs no introduction to readers of the medical history of the World War. One of the first units in America to respond to the call of the Allies for medical assistance, it was early established in Bordeaux, and under the leadership of its able and distinguished director at once became the marker and pattern for other similar units that were stationed later in this region which formed one of the largest centers of hospital activities of the American Forces in France. As Chief Surgeon of Base Section No. 2, it was my privilege and good fortune to become intimately associated with this unit and it is particularly from this point of view that I wish to speak.

In the organization of the medical work of the Base Section this unit played a most important rôle, in supplying the first chief surgeon, my predecessor, and certain of the personnel of his original office force, both commissioned and enlisted. Later when the control of communicable diseases became perhaps the most important activity of the Chief Surgeon's Office, the Commanding Officer of the hospital generously acquiesced in the detail of his laboratory chief, who became head of the Epidemiological Service. To this task he brought a thorough knowledge of the subject and a broad grasp of the situation, so that by his constructive criticism and clear-cut recommendations, practical results of the very greatest value were attained, results keenly appreciated and acknowledged by the Base Commander.

By such means, and in many other ways, Base Hospital No. 6 coöperated in the spirit of unselfish devotion and contributed in large measure to the success of the medical work of the Base Section.

HENRY ALDEN SHAW,

*Lately Colonel, Medical Corps, U. S. Army.
Chief Surgeon, Base Section No. 2, A. E. F.**

* Massachusetts General Hospital, West Surgical House Officer, 1891.

PREFACE

IN this volume are collected the essential facts of the tour of active duty of U. S. Army Base Hospital No. 6 in the World War, rosters, chronological outline of orders and events, together with the statistical data of patients cared for by the unit.

In addition there are published a series of special articles by various members of the unit giving accounts of its organization, the construction of the hospital at Bordeaux, and of the professional service which it rendered. There are included, also, stories of certain activities of members of the unit while away from the organization on special duty.

GEORGE CLYMER
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AN OUTLINE OF THE TOUR OF DUTY OF BASE HOSPITAL NO. 6 IN THE WORLD WAR

PAUL D. WHITE

IN the little town of Talence on the outskirts of Bordeaux there lived for a year and a half, during the World War, a group of pioneers of the Medical Corps of the American Expeditionary Force. This group was composed of the members of Base Hospital No. 6, from the Massachusetts General Hospital in Boston. Their experiences would need many volumes to record, but the brief story of their life from mobilization to demobilization is worth the telling as a page of the achievement of the A. E. F. in the victory over Germany.

The story has its several chapters as the experience of the unit had its several phases: the organization and mobilization, the journey overseas, the introduction to Talence, the summer and fall of 1917, the first winter, the strenuous summer of 1918, the climax, armistice days, and the return to the U. S. A. The story is not complete—it is but a sketch to present our life in France in a more readable manner than can the chronological history and statistical tables to which one may turn for precise and detailed information.

The hospital unit is now past and gone, an item in the history of the great war—one of the important contributions of the old Massachusetts General Hospital to the nation and to the allied cause. We can only hope that if occasion demand in the future the hospital may again do its bit as well. The story of 1917 and 1918 will always serve for inspiration.

ORGANIZATION AND MOBILIZATION

More than a year before the declaration of war against Germany, Dr. Frederic A. Washburn (later Commanding Officer of Base Hospital No. 6) wrote to General Gorgas, then Surgeon-General, asking for an appointment with him to discuss the question of the establishment at the large civilian institutions of hospital units for army service. With Dr. Winford Smith, Superintendent of the Johns Hopkins Hospital, and Col. Jefferson R. Kean, M. C., who had been assigned to duty with the Red Cross, Dr. Washburn attended the conference in Washington with the Surgeon-General. It was then

decided to organize reserve hospital units in the larger hospitals of the country, and Dr. Smith and Dr. Washburn were asked to form units at their own institutions. Returning to Boston, Dr. Washburn presented before a meeting of the Board of Trustees the plan for the organization of the hospital unit of the Massachusetts General Hospital. The plan was accepted. In the spring and summer of 1916, the unit, except for the enlisted men, was organized for what proved to be later Base Hospital No. 6. It was thought at that time (in the early summer of 1916) that the base unit might shortly see active service in the trouble prevailing with Mexico. All the members were examined and vaccinated against typhoid, and supplies were assembled.

There was little change in the situation during the fall and winter of 1916, but as the early spring came on and war with Germany threatened more and more, further work was done in preparing the unit for duty. Eventually, after declaration of war against Germany, the final preparations for the base hospital were rushed and supplies were obtained from the American Red Cross. The hospital was then organized as a Red Cross Unit. After a delay of many days, during which the unit was impatiently awaiting instructions, Dr. Paul D. White was ordered on active duty on May 24, 1917, to enlist the non-commissioned personnel. From May 24 to June 1, busy days were spent selecting 150 enlisted men out of about 600 volunteers. Hospital orderlies, pharmacists, clerks, chauffeurs, cooks, carpenters, plumber, electrician, tailor and barber were carefully selected.

On June 1 the medical detachment proceeded, by order of the War Department, to Fort Strong under the charge of 1st Lieut. Eugene Villaret, C. A. C., who, acting as Company Commander, drilled them from that day till July 9. The results of this drill were remarkable, the rookies adapting themselves speedily and well to their new military life.

On the 29th of May, Maj. Frederic A. Washburn, M. R. C., was ordered to active duty as the Commanding Officer of Base Hospital No. 6. During the interval between the 1st and the 29th of June, the doctors and nurses of the base hospital were impatiently awaiting orders for mobilization and for embarkation for Europe. Week after week passed. Other units were going abroad, the news of which added greatly to the impatience of the personnel who had been for

more than a year ready to enter upon their duties for the war emergency. Finally, on June 29, the nurses received orders to proceed to Ellis Island, New York Harbor, where they remained until the officers and men joined them, nearly two weeks later.

While the unit was making its final preparations, the personnel of officers and nurses was completed; Maj. Richard C. Cabot was chief of the medical service, and Maj. Lincoln Davis, chief of the surgical service. Captain McAfee, the only officer of the regular army with the unit, was appointed to duty as adjutant. Captain Bogan was assigned to duty with the organization as quartermaster. At the last minute a few changes in the personnel of the medical officers were necessary, some of the original unit being unable to serve and their places taken by substitutes. Miss Sara E. Parsons had been from the beginning asked to serve as the chief nurse. It was on her shoulders that the responsibility for the selection of the nurses lay. As one looks back upon the organization and the selection of the personnel of the base hospital, one would now make very few changes indeed in the unit as it was finally mobilized. The length of time during which preparations had been made allowed of a careful selection. The original unit contained 28 officers, 1 Red Cross chaplain, 64 nurses, 6 secretaries, 1 dietitian, and 153 men of the medical department (see Rosters on page 243).

A number of amusing and vexatious incidents occurred during the mobilization which are now almost completely forgotten, but which at the time of great activity played their part in the life of the men at Fort Strong and of the doctors and nurses in Boston. One of the interesting characters of the early history of Base Hospital No. 6 was Hospital Sergeant Dunn, an old soldier of many wars. In brief, he had served in China, in the Spanish War, with Villa in Mexico, with the Canadians in the great war, where he had been wounded, following which he had been discharged and pensioned, and now he was enlisting again. His military training made him a valuable man, although the enlisted personnel did not appreciate as much as the commanding officer, the qualities for which he had been selected. Later in his career his failing health required a change in his status.

Those passersby who peered through the wall surrounding the grounds of the Massachusetts General Hospital, during

some of the warm June afternoons in 1917, will probably never forget the sight of the drill of the raw recruits—the medical officers—conducted by Dr. Washburn. They were indeed memorable moments. On Sunday, June 3, 1917, a farewell service for the unit was held at Trinity Church in Boston, Chaplain Sherrill assisting the Rector clad in his Red Cross uniform.

THE JOURNEY OVERSEAS

On July 9, 1917, with great secrecy, the officers and men of Base Hospital No. 6 left Boston—at least it was supposed to be with great secrecy. The men were brought out from Fort Strong in the evening and marched quietly to the South Station, where previously the officers had by devious underground passages eluded the waiting friends and relatives and entered a train at the end of the station opposite to which the crowds were waiting. The train was heavily curtained. Unfortunately for the secrecy of the departure, the arrival of the men was discovered by the crowds, who soon rushed to that part of the station, and it was with a good many farewells after all that the train pulled out for New York.

Before reaching New York City the unit was detrained and embarked on a steamboat which carried it down the East River to Ellis Island. There the nurses were taken on, and altogether the unit was taken to the dock on the Hudson River, where the Steamship *Aurania* was awaiting them. There at the dock over twenty-four hours were spent before finally very quietly the *Aurania* put into the stream and headed out to sea. There were no tooting of whistles, cheers, or ringing of bells. The only farewells had been a few hand waves and calls from some of the early water-front workers as they saw the tug boat coming down the East River the morning before.

The unit was one of the first group of six base hospitals to go overseas. The *Aurania* sailed at 4.45 P.M., July 11, and arrived at Queenstown Harbor, July 21, at 12.35 P.M. The day before the arrival at Queenstown Harbor the very welcome sight of Destroyer No. 60, which appeared on the starboard quarter at 3 P.M., cheered the members of the unit, uneasy in the submarine zone. After its appearance another destroyer came up, and less than two hours afterwards a supposed submarine was sighted off the port

bow. The destroyers rushed over, fired several times, and the incident was closed. We never did discover whether there actually was a submarine, and if so, whether it had been damaged. This adventure shows that we too had our submarine experience, similar, I imagine, to that of nearly all the rest of the two million Americans of the A. E. F.

The next day we put into Queenstown Harbor, where we spent the night. Finally, on the 23d of July, we reached Liverpool at noon. The *Aurania* was a very good ship and we were sorry later to learn that it had been sunk by a submarine in the course of the following year. Except for this incident of the torpedo boats and the submarine just before we reached Queenstown, the voyage was uneventful. The trip was made without convoy. A little work was done on board—the men drilled and the nurses finger-printed. Directly at noon on the 23d of July, the unit was disembarked, put into a special train and carried to Southampton. Those few hours were the only time spent on English soil by most of the personnel. (Some of the unit later were assigned to duty in England.) Captain Mixter and eight men of the medical detachment were left in Liverpool to look after the hospital supplies.

The evening of July 23, we boarded the Australian hospital ship *Warilda* at Southampton, and put out into the Sound off Cowes, the Isle of Wight. There we remained during the night of July 23, and throughout the day of July 24. That evening we set sail again for Le Havre, where we arrived at 2 A.M. on the 25th of July. That morning, the first of our long stay in France, we disembarked from the *Warilda*. Like the *Aurania*, the *Warilda* was later sunk by a submarine, unfortunately with the loss of many lives of wounded patients.

For two days the unit "rested" at Le Havre, the officers in hotels, the nurses and secretaries at an orphanage, and the enlisted men at a British Rest Camp. On the 27th a special train left Le Havre at 5 P.M. and started toward Paris. Up to that moment no one had any idea as to the ultimate destination of our base hospital. As we neared Paris we considered with joy the possibility of getting a good position near the front, and particularly the possibility of being on duty with American troops; but at Versailles we were switched off to the south, and the next day, July 28, we arrived at Bordeaux at 11.30 A.M. and were informed that we were

to take over a French hospital at Talence, about three miles south of Bordeaux. After the first disappointment at the distance from the front at which the base hospital was to be established, everybody got to work to make the establishment a success. For the first fortnight most of the officers were quartered in hotels in the city. The nurses were sent directly to the hospital at Talence, where they learned a little of what it means to be a soldier—their months of hardship were beginning. The enlisted men were also sent out to the Lycée.

INTRODUCTION TO TALENCE

Talence is a small but rather attractive suburb south of Bordeaux on the main road to Spain, close to the old Roman Road that led from Bordeaux to Toulouse. All around is vineyard country; westward toward the coast are pine forests and sand dunes. Here at Talence was the Petit Lycée de Talence, an excellent school for the children of the neighborhood. At the beginning of the war the French had taken over this school and made it into a hospital, called Hôpital Complémentaire No. 25 (see photograph). To the original stone buildings the French had added a battery of some twenty barrack wards, so that when we arrived at Bordeaux there was a capacity of about one thousand beds. Ours was the first American organization to enter Bordeaux and was one of the very first to be established in what was later known as Base Section No. 2. The inhabitants of Bordeaux and Talence took a great interest in the unit during its early days. The novelty of the American uniform and particularly of the campaign hat attracted much attention.

During the first days when there was an exchange of courtesies and ideas between the staff of the French hospital and the staff of Base Hospital No. 6, there were held some interesting receptions. One of the most pleasant was the luncheon given by the staff of the French Hospital No. 25 to our unit on the grounds of a château near the Lycée of Talence. Here many speeches were made, some in broken French and some in broken English. Another interesting reception was tendered later by the Base Hospital to General Clarac, commanding the 18th Region, and to the Médecin-Chef of French Hospital No. 25. But in spite of friendly words the French were rather reluctant to give up their hospital, for they had used it a long time and it had proved sat-



ENLISTED PERSONNEL AT FORT STRONG



OFFICERS AT FORT STRONG

Rear row, standing: Gullifer, Aub, Leland, Hatch, Means, Binger, Sherburne, Irving
Second row, standing: Wright, Merrill, Kinnicutt, Oliver, Clymer, Adams
Rear row, sitting: Moss, Cabot, Washburn, McAfee, Davis, Mixter
Front row, sitting: Vincent, White, Holmes, O'Neil, Clark, Tobey

isfactory. At first they wanted to share it with the Americans; this was of course out of the question. Finally, on the first of September, by order of General Clarac, Director of the Service de Santé of the 18th Region, the Médecin-Chef of the French Hôpital Complémentaire No. 25 turned over the buildings to Major Washburn for use by the American Base Hospital. During the interval between July 28 and September 1 the French patients had been gradually evacuated to larger French hospitals in the vicinity, and the Americans had taken over one part after another of the hospital, cleaning, painting, and remodeling as they went on.

The hospital as we first viewed it was a very interesting institution, largely because of the types of patients. Not only were there many French wounded and sick, but also there were a goodly number of Russians, German prisoners, Indo-Chinese or Annamites, negro troops (Senegalese) and Algerians, and even a few Canadians, who came from forestry units in the vicinity. In those early days a walk through the grove of the hospital brought one into contact with all these different nationalities as they sat around convalescing from their various illnesses and wounds.

On August 21, 1917, about ten days before the hospital was officially turned over to the Americans, the first American patient was admitted to U. S. Base Hospital No. 6, A. E. F. From that time until January 15, 1919, there were nearly 25,000 patients admitted to the hospital. A diagram of the weekly patient population of the hospital during this interval is contained in the statistical section. The plan of the French Hospital as we found it may be seen facing page 47.

SUMMER AND FALL OF 1917

The summer and fall of 1917 were almost entirely taken up with the work of cleaning, repairing, construction and organization of the new hospital. Many difficulties were encountered, the sanitation, lighting, heating and kitchen arrangements of the French proving very primitive and inadequate. The task of cleaning, painting, and roofing, and construction of the sewer was begun by the original personnel of Base Hospital No. 6, unaccustomed though they were to such work. They made a good start before the work was taken over by Co. C, 18th Engineers, who were assigned to duty at the hospital and who proved of very great assistance in

getting construction under way. From the 8th of September, 1917, until October, 1918, a few weeks before the armistice, construction went on steadily. Scores of buildings were erected. An account of the construction is given by Lt. Ralph Heard, under whose immediate direction it was carried out. Another very important part of the process of getting ready in the summer and fall of 1917 consisted in ordering medical supplies, base surgical equipment, trucks, apparatus for the kitchen, ambulances, and a thousand and one other things which go to make up a large hospital. As originally planned the hospital was to have 500 beds. Speedily this was increased to a thousand, and then, during the year that followed, a steady increase until at last, at the time of the armistice, there were 4,319 patients in the hospital.

In addition to the main construction and preparation were many minor details which at times were diverting and at times exasperating. One of the essential arrangements that had to be made was the supplying of the hospital with food, obtaining milk that could be relied upon at least to a partial degree, and the disposition of the garbage. At first, before the sewage system had been completed, there was much difficulty and annoyance with the old tank sewage method, which required a weekly or bi-weekly visit to the hospital of the special tank carts which the French employ to empty cesspools. For some obscure reason, Sunday was always selected as the time for the arrival of these carts.

Gradually the American troops began to come into this section of France, and along in the late fall and early winter of 1917 the American soldier became a fairly familiar sight on the streets of Bordeaux. No longer were we stared at by the native populace. By the time of the armistice, one year later, Base Section No. 2 and Bordeaux in particular were swarming with American soldiers. Some of the first arrivals were the negro troops and the negro stevedores, who proved to be such an essential part of the Service of Supplies for the A. E. F. Their chief task of course was the unloading of the boats at the docks at Bassens across the river from Bordeaux. For months the docks were under construction. And finally, in 1918, when they were ready for use, many ships came in to the port and Bassens became the chief distributing point in France for A. E. F. supplies. Many of our first patients were these negro stevedores.

On September 1, 1917, the hospital was officially taken over from the French; on September 5 the Administration Building as reconstructed was occupied; on September 8 the main construction work was begun; and on September 13, and for three weeks thereafter, a complete telephone system was installed.

The first patients were admitted to the hospital on August 21, 1917. On October 1, 1917, there were 160 patients in the hospital and 200 beds. On the last day of the year there were 325 patients and 500 beds. The diseases for which they were admitted at that time were mostly acute infections: measles, scarlet fever, mumps, and lobar pneumonia, especially among the stevedores. There were no wounded at that time. During the three months of October, November, and December, 1917, 231 surgical operations were performed. In the fall, Captain Moss and Captain Kinnicutt established the clinical and bacteriological laboratories, which later in the spring became very active. On Sunday, the 28th day of October, General Pershing visited the hospital unexpectedly. This was the first of three visits which he paid to the institution. On Christmas Day, 1917, the Red Cross Hut for the enlisted personnel was opened for use. This hut proved to be one of the life-saving features of the Base Hospital during the hard days of 1918. Chaplain Sherrill directed not only the church service and the Men's Club for the enlisted men of the unit, but he also acted as postmaster and had charge of the library for the Base Hospital. He was one of the busiest and most valuable members of the Base Hospital at Talence from the very beginning of the work until the very end.

Various opportunities during the fall were given to members of the personnel for observation of conditions elsewhere in France. Teams were sent up for two weeks' stay to the British front. This continued until the early spring of 1918. Other officers were sent to the hospital at Ris-Orangis, near Paris. Every opportunity was given to observe the methods of the French and British in the war zone.

Few changes in the personnel took place, one of the most important being the departure of Major McAfee to assume the duties of Chief Surgeon in Base Section No. 2. Later he was transferred to be Chief Surgeon of the Paris District. At the time of the armistice he was a Colonel. Occasionally casual officers would be attached, usually for temporary duty

to the Base Hospital unit, but only a few were kept for the duration of the war.

One of the diversions in the early part of the life of Base Hospital No. 6 was to go down to Bordeaux to watch the liners come in. A curious crowd of Czecho-Slovak recruits from America, American Red Cross personnel, Y. M. C. A. workers, French civilians, and sometimes American soldiers appeared at the rail as the ships came in. Some of the unit bought or hired bicycles and toured the country during idle hours in the summer of 1917. Others tramped through the country. There were many old castles to visit—some of them dating back to the time of the Black Prince or earlier—interesting churches, quaint villages, and famous vineyards. Arcachon, a renowned summer resort on the coast with excellent bathing, was only forty miles away to the west. Everywhere the roads were excellent with few hills. One of the most frequented was the old Roman Road. All about, the country was beautiful. A few took advantage of the Golfe Bordelais, a quaint twelve-hole course built about an old farmhouse five miles from the hospital. During some of the chill wet evenings of the winter, pleasant hours were passed in the low ceilinged rooms of such little taverns in the neighborhood as that at Gradignan. The wealth of the country in its vintages was much appreciated. In the summer of 1918 many more of the members of the unit obtained bicycles and a few practice spins by the C. C. C. C. (Château Crespy Cycle Club) were made until the rush of work and the bad weather put a check to them.

THE FIRST WINTER

Difficulty in getting supplies, the lack of fuel, the wet raw weather of Southern France in the region of Bordeaux, added to the depression caused by the reverses of the allies in the war, made the first winter a very gloomy one. There was no active fighting on the part of the American Forces. There was little prospect of the war ending for years, and for a good part of the time many of the members of the hospital were not very busy. On December 31, 1917, Château Crespy was opened for use as quarters for the medical officers, and on March 1, Château de Breuil was obtained as additional quarters for the steadily increasing staff of nurses. The chief burden of the first winter was on the medical service, which

at one time with a crippled personnel had to deal with the large number of acute infectious diseases, particularly pneumonia, among the stevedore troops.

On January 30, 1918, one hundred beds were set aside for French wounded, and later in April the first convoys arrived. On March 13, General Pershing made his second visit to the hospital, this time bringing with him Secretary of War Baker. During the month of March, 1918, reënforcements consisting of 112 enlisted men arrived at Talence.

On April 1 there were one thousand beds available, and there were 574 patients. On April 3 the first large convoy was received. American Ambulance Train No. 53 came down to Bordeaux with 326 patients for the Base Hospital. These patients were chiefly convalescent, some with slight wounds received in action. On April 8 a French convoy was received, mostly of slightly wounded, 99 in all.

On April 25 an important event in the history of the hospital occurred: a change in commanding officers. Major Washburn, who had been the chief of the organization since its birth in 1916, was called to England to direct American hospitalization in that base section. He was replaced by Maj. Warren L. Babcock. Shortly after the departure of Major Washburn, Captains Mixter and Means followed, and spent the remainder of the war in England assisting Major Washburn.

One of the sad events of the life of Base Hospital No. 6 in France occurred in the spring of 1918, when one of the nurses, Miss Lucy Fletcher, died on May 6, after a prolonged illness from meningitis. She was buried in the little graveyard at Talence with full military honors.

In June, 1918, there were 1,800 beds in the hospital and 864 patients. During the months from January to June inclusive, there were 874 surgical operations performed.

The laboratories were extremely busy during the winter and spring, especially in work on meningitis, of which there were a number of cases very difficult to treat because of the weakness of some of the anti-meningococcus serum. Lieutenant Binger coöperated with Captain Kinnicutt in the work on the meningitis cases. Up to the last of June, 117 autopsies had been performed in the pathological laboratory. On the 1st of March the hospital laboratories were made the seat of the Base Laboratory of Base Section No. 2.

During all this time through the winter and spring of 1918, construction went ahead satisfactorily and gradually gathered momentum, until by the early summer of 1918 the hospital had attained a large size.

Occurrences of interest, aside from those mentioned during this interval of six months, were the arrival of the second large convoy of 399 patients on the 13th of May, chiefly convalescent from slight wounds and gas, and on the same day the opening of the Château de Beycheville by the Red Cross for use as a convalescent officers' ward of the hospital. This was a delightful estate about 40 kilometers down the river and overlooking the water, with lawns that sloped down for nearly a mile to the bank. Here, during the spring and summer of 1918, many officers and some of the nurses who were convalescent enjoyed the comforts of home. On the 4th of June the second French convoy of 80 patients, mostly slightly wounded, was received. On June 14 and 19 the third and fourth American convoys, with more than a thousand wounded and gassed soldiers, came down fresh from the front at Château-Thierry and Montdidier. Maj. Richard C. Cabot returned in the spring from Paris, where he had gone in the late fall of 1917 to carry on Red Cross relief work for French and Belgian refugees. At the beginning of July Dr. Wade Wright also returned. He had been engaged in similar work in Paris, and on the front north of Paris. Various members of the personnel, officers, nurses, and enlisted men, were on detached and temporary duty during this period. Notable examples were a surgical team consisting of Captain Vincent and First Lieutenant Clark, Misses Robertson, Barton, and Conrick, who were assigned to duty as a team at the front where they remained until after the armistice, and the dispatch of Major Davis and Captain Irving to Luneville as a surgical team, later transferred to the Italian Front, where Major Davis was the Chief Surgeon of the A. E. F. in Italy.

Of very great importance was the arrival in March of Unit O, a surgical unit from North Carolina for duty with Base Hospital No. 6. This unit remained as an integral part of Base Hospital No. 6 until relieved of duty in the middle of January, 1919. There were 21 nurses, 11 officers, and 46 men belonging to Unit O. They brought invaluable aid to the Base Hospital and became warm friends of the northern unit.

One of the features which relieved the monotony of the dull routine at Talence was the possibility of attending medical research meetings of the American Red Cross in Paris. These meetings occurred every month, and to each meeting several officers were sent.

WORK BEGUN IN EARNEST: THE STRENUOUS SUMMER OF 1918

The summer months of 1918, July, August, and September, proved to be very active ones for all the officers, nurses, and men at Base Hospital No. 6, as they did elsewhere through the A. E. F. Americans had at last got into the fighting game in earnest; convoys poured steadily in, as may be seen in the chronological history. Toward the end of September, an epidemic of influenza added its quota of work to the staff already overburdened with wounded and gassed soldiers. To supplement the insufficient personnel of the hospital, casual medical officers were attached for temporary duty. Fifteen nurses were obtained from the Chicago Presbyterian Unit of Base Hospital No. 15. Their help during the rush was invaluable.

During July there were seven large convoys of American patients wounded and gassed; during August there were seven more; during September there were four; during October there were eight. But in addition to convoys, Base Hospital No. 6 drew from the camps in the country surrounding Bordeaux and Base Section No. 2, and many of the patients therefore came in from the surrounding region. However, during the summer and fall of 1918 other hospital units arrived in the vicinity, notably at Beau Desert, about five miles away, where at the time of the armistice a large hospital group was being established. These relieved a good deal of local pressure.

On July 30, General Pershing paid his third visit to the hospital and made a short address at the Red Cross Hut, where he praised the work of the American soldiers at Château-Thierry, claiming that they had stopped the German advances; he forecast the formation of a complete American Army whose operations did soon result in the capture of Saint Mihiel. Another important visit during the summer was that, on August 8, of General Ireland, the Chief Surgeon of the A. E. F., to inspect the hospital. And still a third was the second visit of Secretary of War Baker, this time accompanied by Gen. Tasker H. Bliss, on September 20.

Most of the work during the summer related to war wounds, and so was surgical. One of the problems, however, that early arose was the care and disposition of the gassed cases. For these soldiers special wards were set aside and special training methods and tests instituted, so that by the time of the armistice a very satisfactory routine had been developed. In August the first definite cases of influenza began to appear. The disease at that time was of short duration and not very severe. However, there were some cases of bronchopneumonia among these early "flu" victims.

The construction continued through the summer and early fall of 1918, and was finally completed a few weeks before the armistice. As the work increased and as the battle progressed, the members of the unit rose to the occasion; the *esprit* of the whole organization was excellent. Everybody was willing to work harder than they had ever worked before, with excellent coöperation throughout the hospital. One of the features of interest during the summer was the establishment of a school of medicine during July for a large group of casual medical officers temporarily attached to Base Hospital No. 6. Major Richard C. Cabot directed this summer course and the casual medical officers received a good deal of benefit, although it added to the work of the original staff of the hospital. The schedule of the course for one of the weeks is on the opposite page.

One of the busiest places in the hospital, throughout the summer and fall of 1918, was the office of the Disability Board. Maj. Richard C. Cabot, Capt. Richard O'Neil, and Lieut. John Hodgson began the most active phase of the Board's existence, Major Cabot, Lieutenant Hodgson, and Capt. E. Lawrence Oliver terminating it; thousands of cases were seen and passed upon. Major Brenizer, the leader of Unit O, supervised the surgical service during its busiest times, and Capt. Henry Marble, who began service with the unit as Registrar, carried on the very important orthopedic work. Major Cabot helped to keep up the interest in current events and gave much of his time to fortnightly talks at the Red Cross Hut throughout the summer. Hundreds of convalescent patients as well as the unit members attended these talks.

SCHEDULE OF EXERCISES (Week of July 8-15)

Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
8-10 A.M.	Operations Surgical Amphitheatre.	Operations Surgical Amphitheatre.	Operations Surgical Amphitheatre.	Operations Surgical Amphitheatre.	Operations Surgical Amphitheatre.	
10-11.30 A.M.	Rounds (in Sections; Maj. Brenizer, Capt. Marble, Lt. Hodgson)	Rounds (in Sections; Capt. O'Neil, Capt. Crawford, Capt. Turner)	Rounds (in Sections; Capt. O'Neil, Capt. Crawford, Capt. Turner)	Rounds (in Sections; Maj. Brenizer, Capt. Marble, Lt. Hodgson)	Rounds (in Sections; Maj. Brenizer, Capt. Marble, Lt. Hodgson)	
9-11.30 A.M.	Sec. I meets Major Cabot in Ward 24. Sec. II meets Lt. White in Ward 21. Sec. III meets Capt. Oliver in Ward 10-A.	Sec. I meets Major Cabot in Ward 24. Sec. II meets Lt. White in Ward 21. Sec. III meets Capt. Oliver in Ward 10-A.	Sec. I meets Major Cabot in Ward 20. Sec. II meets Lt. Binger in Ward 18. Sec. III meets Major Cabot in Ward 21.	Sec. I meets Capt. Allen in Ward 16. Sec. II meets Major Cabot in Ward 28. Sec. III meets Lt. Wright in Ward 50.	Sec. I meets Lt. Aub in Ward 16. Sec. II meets Major Cabot in Ward 28. Sec. III meets Lt. Wright in Ward 50.	
2-3 P.M.	Surgical Exercise. Maj. Brenizer Clinical Lab.	Physical Diagnosis. Major Cabot Clinical Lab.	Cardiovascular disease. Lt. White Clinical Lab.	Physical Diagnosis. Major Cabot Clinical Lab.	Surgical Exercise. Capt. Crawford Clinical Lab.	Syphilis. Capt. Oliver Clinical Lab.
3-4.30 P.M.	Lecture by Col. Babcock. Admissions, Discharges and Internal Management of a Hospital. Clinical Lab.	Inspection and Sanitation. Capt. Marble Capt. Allen	Inspection and Sanitation. Capt. Marble Capt. Allen	Inspection and Sanitation. Capt. Marble Capt. Allen	Lecture by Col. Babcock. Admissions, Discharges and Internal Management of a Hospital. Clinical Lab.	Inspection and Sanitation. Capt. Marble Capt. Allen
	SECTION I. Lt. Bowles Capt. Darling Lt. Edwards Lt. Glick Capt. Hayes Lt. Hooker	SECTION II. Lt. Pritchard Lt. Reese Lt. Rosen Lt. Scheinman Lt. Scher Lt. Schoenfield	SECTION II. Lt. Pritchard Lt. Reese Lt. Rosen Lt. Scheinman Lt. Scher Lt. Schoenfield	SECTION II. Lt. Pritchard Lt. Reese Lt. Rosen Lt. Scheinman Lt. Scher Lt. Schoenfield	SECTION III. Lt. Underhill Lt. Vann Lt. Weiss Lt. Wheeler Lt. White	SECTION III. Lt. Whiton Lt. Williams Lt. Wilson Lt. Wiseman Lt. Allison

Here must be mentioned the valuable work of the Y. M. C. A. and later of the American Red Cross in providing entertainment for the convalescent patients and for the members of the Base Hospital. Movies and concerts came at frequent intervals, during the last months of the war every night. It was by such entertainment that the wild spirits of the doughboy were somewhat held in check.

Much of the routine work of the hospital—guarding, cleaning, kitchen work, and even clerical and medical assistance—was carried on by the hundreds of convalescent patients available. Every day the squads reported for duty from nearly every ward, and Lieutenant Glasgow distributed them to their tasks. Some worked on the small farm kept by the hospital on an adjoining estate. Still others dug graves in the cemetery at Talence when the mortality was so high from influenza and war wounds.

On the 4th and on the 14th of July, the French people and the American soldiers in and near Bordeaux celebrated Independence Day and Bastille Day with a good deal of enthusiasm. There were military parades through the city with both American and French troops participating. Some of the enthusiasm spread to the hospital itself.

The number of patients in the hospital July 31, 1918, was 2,332, and the number of beds 2,600. During the month of July 3,115 patients were admitted, and there were 325 surgical operations for the month. On the 31st of August there were 2,971 patients in the hospital, capacity 2,600 beds (the extra 400 being "emergency"); during the month of August there were 3,165 patients admitted; surgical operations 673 for the month. On September 30 there were 2,996 patients in the hospital, with a capacity of 2,750; during the month of September 2,330 patients were admitted; 590 surgical operations were performed.

THE CLIMAX

The climax of the life of Base Hospital No. 6 was reached during the month of October and the first twelve days in November. The combination of steadily increasing casualties resulting from the terrific offensive in the Argonne Forest and the influenza epidemic victims filled the hospital to overflowing. During the month of October there were eight convoys from the front, nearly all wounded. There were 4,378

admissions to the hospital during October; the greatest number of patients during the month in the hospital were 4,235 on October 28, the normal capacity of the hospital being 3,000; 582 operations were performed during the month.

A change occurred in the policy of the Disability Board, whereby surgical cases, which formerly were kept in the hospital after operation, were now sent directly to the United States. The epidemic of influenza reached its height during the first week of October, declining sharply during the second week. At the end of the month it was nearly extinct so far as concerned cases originating in Base Hospital No. 6 or brought to the hospital from the base section. This in fact corresponded roughly with the condition of things all over Europe and even in America. The cases originating in the base hospital unit and accordingly seen early and promptly put to bed were, as a rule, mild. The severest cases were those in people weakened either by severe hard work or severe exposure, or by travel to which they had been subjected on the way to the hospital. Sixty-three enlisted men, 18 nurses, and 8 officers of our own unit were attacked. Unfortunately among them there was one death, that of Private 1st Class Allyn M. C. Berrie on October 9. He and Miss Fletcher were the two members of Base Hospital No. 6 who gave their lives for the cause of freedom in France; a third member of the original unit, Miss Mary Emery, died of carcinoma in America at the Walter Reed Hospital after the armistice. Toward the end of October cases of meningitis began to appear, and it was found that in the treatment of these cases the serum furnished by the New York State Board of Health and the New York City Board of Health was more efficacious than any of the other sera. The construction of the hospital was completed during the month of October, and the isolation barracks were finally put into operation.

On the 12th of November, 1918, there were 4,319 patients in the hospital, the normal capacity being 3,000. This number was the largest in the hospital at any time. After the armistice on the eleventh, patients decreased in number very rapidly, so that by December 4 there were but 2,400 cases in the hospital, a figure a little more than half of that three weeks previously. By December 31 it had dropped to 1,500, many evacuations taking place and very few new convoys coming in. During the month of November there were but

four convoys, the last one coming in on the twelfth and made up of 522 patients, wounded on the ninth and tenth, the days before the armistice. During December there were but three convoys of convalescent patients. A chart, page 227, shows graphically the largest patient population in the hospital during each month from September, 1917, to December, 1918. On examination the chart shows two sharp rises: one in June and July, 1918, at the time of Château-Thierry, and the other in September and October, 1918, the result of the Argonne-Meuse offensive. The Saint Mihiel offensive resulted in very little increase in the population of the hospital. A few cases of influenza entered the hospital even as late as November, but they were mostly mild, and few, if any, would have been recognizable as influenza except for the fact of an epidemic.

There was little celebration of the armistice at Base Hospital No. 6 until several weeks after, simply because every one was so rushed with work that there was no time. But quite naturally great relief was felt by every member of the unit after the twelfth, when there was a cessation of incoming patients severely wounded or sick. The spirit of the hospital was excellent at the time the armistice was signed, and hard-pressed as every one was, it seems likely that the pace could have been maintained and probably increased during the next few weeks or months if it had been necessary more completely to defeat the Germans.

ARMISTICE DAYS

For Base Hospital No. 6 the days after the armistice was signed, November 11, until the hospital was relieved of duty on the 15th of January, were days of clearing out the hospital, relief from the strenuous duties of the fighting period, and reunion of the original members of the unit as the various "teams" returned. The work grew very much lighter, and during the last of December and the first of January was so light that time began to hang heavily on the hands of the members of the unit, as it had done in the early days in France. All were restless, and anxious to get away, counting the days from that time on until relieved from duty, and orders for sailing were received. There was more freedom now to get away from the hospital, to go into Bordeaux for dinner, and to attend dances and parties at the houses of some of the French people with whom they had made friends.

It was the first time in over four years that the French families had had an opportunity to make merry, and they began with a vengeance.

Christmas Day, 1918, was celebrated with much enthusiasm. There was time for special preparation. Every ward was prettily decorated. Captain Marble organized an amusing pageant which visited nearly every ward, singing and dancing. Major Oliver was an ideal Santa Claus. In the evening Lieutenant Colonel Cabot and his able stage fellows performed admirably the play "Spreading the News." It was preceded by an amusing curtain raiser, "Food." The Red Cross Hut served for performances such as these as well as affording writing, game, and refreshment rooms for the convalescent soldiers.

The members of the teams who had been out for many months returned to the station; Colonel Davis and Captain Irving from Italy; Major Vincent and Lieutenant Clark from the Argonne; Captain Crawford and Captain Leinbach also came back from duty at the front. And finally, at the end of January, Colonel Washburn himself paid a visit to the hospital. Unfortunately he was not able to return with the unit, for he still had duties in England which kept him from rejoining the group. Various nurses and men who had been on detached duty also came back, preparatory to returning home to America.

During November 446 operations were performed and 2,745 new cases were admitted to the hospital. During December, 2,114 new cases were admitted, but there were only 72 operations performed. On 17,466 cases in the surgical service up to the end of December, 1918, 3,442 operations had been performed. The outstanding feature, medically, during November and December was the absence of any considerable number of exanthemata. In the wards for the corresponding time in 1917 there were many cases of scarlet fever, measles, and mumps. Also, there was no large epidemic of pneumonia after the influenza had stopped. On the other hand, cases of typhoid fever appeared toward the end of November. Much of the activity during November and December consisted in evacuation of patients to transports for return to the U. S. A.

The decrease in number of patients during December was slowed up because of the accumulation of unevacuated patients. The "A" cases, that is, those fit to return to full active duty,

were gathered into companies and segregated into separate wards without nurses or orderlies. In these casual camps the men were not treated as patients, so that although the roster of the hospital indicates a large number of cases still remaining on December 31, there were but few really sick. In January there were two incoming convoys during the first few days.

On January 3, 1919, the personnel of U. S. Base Hospital No. 208 arrived at Talence, prepared to replace Base Hospital No. 6. On January 14 the transfer took place, and patients, records, and property were turned over. On this day Base Hospital No. 6, A. E. F., ceased to exist as an active organization. The buildings so laboriously erected by Base Hospital No. 6 were eventually taken over by the French, and should serve as a suitable military hospital for the 18th District. Their eventual fate we cannot prophesy, but their construction was so solid that they should be of service for many years. On January 7, the personnel of Unit Q arrived at Talence, preparatory to replacing Unit O. This transfer from Unit O to Unit Q also took place on January 14.

During the latter part of the month, after the relief from duty had taken place, some of the members of our unit made plans for continuing work in Europe, some to remain on duty with Base Hospital No. 208, some to work with the Red Cross in France and Italy. One group of five medical officers on the 30th of January left Talence, was demobilized on January 31 at St. Aignan, and on the first of February joined the Balkan Commission of the American Red Cross in Paris for service in Macedonia. The next six months they were detailed to duty in the Balkans, their chief task being coöperation with the Greek Army in the typhus epidemic in Macedonia. This group consisted of Captains Crawford and White, and Lieutenants Clark, Binger, and Hodgson.

One of the projected enlargements of Base Hospital No. 6, brought to a sudden stop by the armistice, was the establishment of a large supplementary hospital in Bordeaux. It was to have been called Base Hospital No. 220 and was to have been commanded by Capt. G. A. Leland, Jr. In fact, on the 7th of November, 1918, Captain Leland was relieved from duty at Base Hospital No. 6 and appointed commanding officer at Base Hospital No. 220; on December 7 he returned to duty at Base Hospital No. 6, having been relieved of duty

as commanding officer at Base Hospital No. 220. Since the departure of Captain Means to England in May, 1918, Captain Leland had been adjutant of Base Hospital No. 6. He finished his duties with the unit in this capacity.

THE RETURN TO THE U. S. A.

The month of February was largely taken up with preparations for return. Every one packed, said farewell to French friends, and asked daily for news of sailing orders. Finally, on the 14th of February the orders were received for the return to the U. S. A. of the nurses and most of the officers on the transport *Abangarez*. But the enlisted men, the Commanding Officer, Colonel Davis, the Adjutant, Captain Leland, the Company Commander, Lieutenant Roundy, and a few others stayed on for a short time longer. Their sailing from France was on March 12. The return of both groups of the unit was uneventful, in spite of rough weather. At New York orders were received for transportation to Camp Devens; there in March, 1919, the members of Base Hospital No. 6 were mustered out of service, after nearly two years of active duty as a part of the A. E. F.

Not a few of us will want, after a few years, to make a pilgrimage back to the old Lycée at Talence, to walk its long corridors and climb its stairs again, to stroll through the grove, to peep into the Châteaux Crespy and De Breuil in the leisurely days of peace—yes, even if we have to walk out from St. Génès. Perhaps we will hear the classes going on in the Lycée—what a contrast to the stern days of the fall of 1918, when the classrooms were full of the groans of the wounded and the delirium of those dying of influenza!

THE ORGANIZATION OF RED CROSS HOSPITAL NO. 6 AND THE EARLY PART OF ITS ACTIVE SERVICE AS U. S. ARMY BASE HOSPITAL NO. 6

FREDERIC A. WASHBURN

IT is the consensus of medical opinion in the American Expeditionary Forces that the base hospitals organized under Red Cross auspices, and called into active service with the army after the declaration of war, have been of the utmost value to the Medical Department. This opinion I have heard voiced by Major General Ireland, Surgeon General U. S. Army, Brigadier Generals Winter, Kean, Glennon, and McCaw, and many others.

To one who saw the military hospitals in the Spanish War, the contrast was startling and impressive. In 1898 hospitals were hastily organized with inadequate previous study of the suitability of the individuals for the duty to which they were assigned. Many of the staff, nurses and enlisted men, were strangers and so lacked the confidence in one another and knowledge of each other's capacity and methods so necessary for team work. In 1917, on the contrary, hospitals for war service had been organized in time of peace under the auspices of the American Red Cross. The major part of these Red Cross Base Hospitals had as parent institutions successful civil hospitals. The plan adopted was for the Surgeon General, or the Bureau of the Red Cross having this matter in charge, to invite a civil hospital to organize a Red Cross Base Hospital. Some one physician connected with the hospital was chosen Director and made responsible for the selection and organization of the unit. This Director might be chief of medical or surgical service or commanding officer, as in the case of Base Hospital No. 6.

Over a year before the United States declared war upon Germany, I wrote to General Gorgas, then Surgeon General, asking for an appointment with him to discuss the question of reserve hospitals at our civilian institutions. This was a matter of which I had long thought. I arranged with Dr. Winford Smith, the Superintendent of Johns Hopkins, to go with me to this conference. Before I left Boston for this purpose, Col. Jefferson R. Kean, M. C., then assigned to

duty with the Red Cross, paid me a visit at the hospital and told me that he was trying to form reserve hospitals connected with medical schools and universities. He gave the credit of pushing this idea to Dr. George W. Crile of Cleveland, who had recently published an article on the subject. It is probably true that like many new things of importance, the thoughts of a number of men were turning to the same idea at about the same time. Colonel Crile is entitled to praise for first publicly calling attention to the possibilities. Colonel Kean was at that time discussing the matter with the authorities of Harvard University. As we were proposing to organize hospitals, I was very clear in my mind that hospitals were the proper parent institutions. Also, inasmuch as there were more hospitals than universities, it seemed clear that we could organize many more by building them around hospitals. For these reasons my suggestion was that, instead of one unit in Boston formed around Harvard University, there be at least three formed, one each at the Boston City Hospital, the Peter Bent Brigham Hospital, and the Massachusetts General Hospital.

At the conference in General Gorgas's office in Washington were present the Surgeon General, Col. Jefferson R. Kean, Dr. Winford Smith, and myself. After a full discussion of the subject, the decision was reached to have both hospitals and medical schools act as mother institutions, and Dr. Winford Smith and I were asked to form units at our respective institutions, namely, the Johns Hopkins Hospital and the Massachusetts General Hospital.

Upon my return to Boston, I placed the matter of the Surgeon General's request before the Trustees at a Board meeting. The Trustees acquiesced in the formation of the Base Hospital with the understanding that it would involve no expense to the Massachusetts General Hospital. This vote was passed on March 17, 1916.

As Director, I took up the matter of the choice of Chief of the Medical Service with the Medical Executive Committee, and of the Chief of the Surgical Service with the Surgical Executive Committee. Dr. Richard C. Cabot agreed to serve in the former, and Dr. Lincoln Davis in the latter capacity. These gentlemen selected their medical and surgical staffs in conference with the Director.

Bishop Lawrence recommended our Chaplain, Henry K.

Sherrill. Our Pathologist, Dr. Roger Kinnicutt, and our Bacteriologist, Dr. William L. Moss, were selected after conference with the Massachusetts General Hospital Pathologist and others of the Hospital Staff having knowledge of their professional ability. The Roentgenologist, Doctor Merrill, was taken from the Massachusetts General Hospital X-Ray Staff. The Neurologist, Dermatologist, Ophthalmologist, and Laryngologist were selected from our Staff or that of the Massachusetts Charitable Eye and Ear Infirmary. The officers were commissioned in the Medical Officers Reserve Corps.

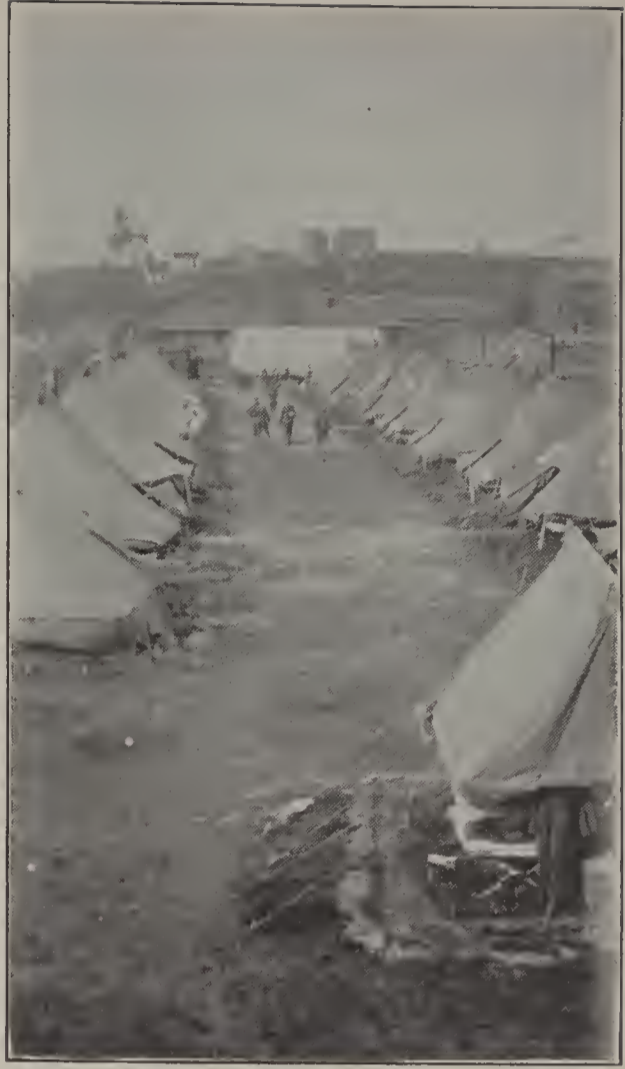
Miss Sara E. Parsons, Superintendent of Nurses, Massachusetts General Hospital, was selected as Chief Nurse. She was given a free hand in the choice of nurses, who were nearly all graduates of the Massachusetts General Hospital. The nurses were enrolled as American Red Cross nurses and pledged to accept appointment in the Army Nurse Corps, if the unit was called into active service. A certain number of male nurses and mechanics were pledged to enlist. It was, however, not found possible to do much with men who were to enlist until the actual enlistment into active service was authorized.

Money for the equipment of a 500 bed hospital was raised by the local Red Cross and the necessary purchases were made by Lieut. Col. J. C. R. Peabody. This property was stored in Boston, ready for use when needed. The Ladies' Visiting Committee of the Hospital presented the unit with a fund of \$5,000 and further gifts of money were made by Mrs. Charles G. Weld, Hospital Social Service Workers, and others. The Boston Metropolitan Chapter of the Red Cross sent us a sum of money monthly. Mrs. Nathaniel Thayer presented a silk national flag, and the local Red Cross Society a Red Cross flag.

I was ordered to active duty as Commanding Officer on May 28, 1917. Enlistments were made in May and June. Lieutenant Villaret, C. A. C., U. S. Army, was designated as drill officer, Lieutenant Means as medical officer, and the detachment went into camp at Fort Strong, Boston Harbor, where it was equipped, drilled, and instructed. Capt. Larry B. McAfee, M. C., U. S. Army, joined as Adjutant early in July. The nurses were mustered into the Reserve Nurses Corps and were sent to Ellis Island, New York Harbor, to be equipped and await transportation to France. The women



MAJ. LINCOLN DAVIS ON BOARD THE
Aurania



ENLISTED PERSONNEL UNDER CANVAS
AT FORT STRONG



MISS SARA E. PARSONS,
CHIEF NURSE



OFFICERS ON BOARD THE
Aurania



ENLISTED MEN ON BOARD THE
Aurania

civilian secretaries were also equipped and assembled at Ellis Island. The rest of the officers, except Lieut. P. D. White, who had enlisted the company in May, were not ordered to active service until July 3, just before the unit left Fort Strong.

On June 3 services were held in Trinity Church for the unit. These were conducted by Bishop Lawrence, Dr. Mann, and Rev. Henry K. Sherrill, who was to become our Chaplain. Although we were impatient to sail for Europe, nevertheless the six weeks devoted to drill and training proved to be of great value to us later. When we finally started, our men bore some resemblance to soldiers.

On July 9 officers and men left Fort Strong by boat, landed at Long Wharf and marched to the South Station, Boston. They then went by train to New York and on board the Cunard Liner *Aurania*, under provisions of Confidential Orders from the War Department. The nurses and women civilians joined us on board ship.

We sailed from New York on July 11, 1917, 29 officers, 71 nurses and secretaries, 153 enlisted men of Base Hospital No. 6, and 40 enlisted men of Base Hospital No. 5. We had the only military organization on board. There were two regular officers as passengers and a number of men who were going to join the American Ambulance Corps in France. The *Aurania* was a new ship, this being her second or third voyage. She was later torpedoed and lost, I think in the fall of 1917. Captain Miller, who commanded the ship, was a very agreeable and able officer. When I parted from him at Liverpool, I asked him to let me know sometime in the future how the conduct of our organization compared with that of others which he had carried. He met me on the wharf at New York when I returned in April, 1919; he had remembered my request and told me that of all the troops he had carried during the war, Base Hospital No. 6 was the best disciplined, that it kept its quarters the cleanest and gave the least trouble.

During the trip across we had boat drills daily, and as we approached the torpedo zone we went through the usual formula of wearing our life belts and not showing lights after dark. The officers and men of the crew of the *Aurania* were all men from Cunarders which had been torpedoed and lost. Captain Miller was low man, he had been torpedoed but once. The chief engineer had been on the *Lusitania* and had spent

many hours in the water. On July 20, at 3 P.M., the American Destroyer No. 60 was sighted. At 5 P.M. a German submarine was seen on the surface, from the bridge, about 10,000 yards away. The destroyer made for her and fired five shots, but she submerged and was seen no more.

We entered Queenstown Harbor July 21, as the port of Liverpool was closed. The enemy submarines were reported to have been laying mines off the harbor.

The next day at eleven in the morning, accompanied by two destroyers and the *Belgic*, we left Queenstown for Liverpool.

We reached Liverpool at noon, July 23, and immediately entrained for Southampton. Capt. W. J. Mixter and seven men were left behind to follow us with the freight. We reached Southampton at 10 P.M., went on board the Ambulance Ship *Warilda*, Major Milne, Commanding Officer, and Captain Walker, Adjutant. The Harper Hospital Unit from Detroit, Base Hospital No. 17, Captain Coburn commanding, also came aboard the *Warilda*. General Balfour, Commandant of the port of Southampton, called upon us. Some of us later knew him better, and had the opportunity to study and admire the wonderful piece of transportation machinery he organized at Southampton.

July 24 we dropped down the river and anchored off the Royal Cowes Yacht Club, Isle of Wight. We crossed to Havre that night, reaching there at 2.30 A.M., July 25. The officers went to hotels, the nurses to L'Hôpital Jeanne d'Arc. The men under Captains Holmes and Marble, and Lieutenants Clymer and Means proceeded to Dock Rest Camp No. 2.

The Commanding Officer received the most polite telegram of which there is any record in our army experience. It was from the French Army Headquarters in Paris and inquired when we would like to go to our station.

It developed that we were destined for Talence, a suburb of Bordeaux. Major Davis was sent ahead to prepare the way for us, and on July 27, at 5 P.M., a special train with five coaches for the men, three and one-half for the nurses and one and one-half for the staff, was loaded and went to Bordeaux by way of Versailles and the Midi Railroad. We reached Bordeaux on July 28, and were met at the station by Major Davis, the Sous Directeur de Santé, and other French officers.

It proved that we were to take over a part of a French Hospital known as L'Hôpital Complémentaire No. 25. The men and nurses went there immediately and were quartered in wards. The officers went to the various hotels in Bordeaux.

On July 29 the officers of this hospital gave a luncheon to the officers of Base Hospital No. 6, on the grounds of a nearby château.

The nucleus of this French military hospital was Le Petit Lycée de Talence, a boys' academy. The French had built a number of small one-story pavilion wards in connection with the Lycée building, and had also erected an operating building. The place was lighted by electricity. There was a very limited water supply. The disposal of waste was very primitive, a series of cesspools and an overflow from the laundry and kitchens and other wastes into an open brook on the next estate, all of which was very foul and malodorous. The Médecin-Chef, Lieutenant Colonel DuMaigny, planned that we should handle one-half of the hospital and that the French would handle the other half, and that all would be under his command. This seemed an impossible scheme, and I so represented it to Brigadier General Blatchford when he visited us on August 6. General Blatchford was then in command of the Lines of Communication, and Col. Francis A. Winter was his Chief Surgeon. On a trip to Paris, on August 1, I visited the office of the Chief Surgeon, A. E. F., Colonel Bradley, then at the Hotel St. Anne. There I saw Colonels Bradley and Ireland, who agreed to approve my recommendation that the whole hospital should be turned over to the Americans. I was also given authority at that time by the Chief Quartermaster, Colonel McCarthy, to hire châteaux and buy necessary materials.

In the presence of General Blatchford, Colonel Trilhes of the French Service, and liaison officer between us and the French, served orders in writing upon Colonel DuMaigny to evacuate the hospital and turn it over to us. Colonel Trilhes, whose death we were to bemoan a little later, was a very efficient officer and a warm friend of the Americans. Base Hospital No. 6 had many things for which to thank him. General Quinquandon, Commanding Officer of the department, was always agreeable and helpful. I cannot speak too highly in praise of the ability and warm friendship of General Clarac, Chef de la Service de Santé.

We were the first American troops at Bordeaux. The only Americans preceding us were a small detachment of the Navy, Captain Patten, U. S. N., in charge. Our officers and men were fully aware of the importance of making a good impression upon the French, as the first representatives in Bordeaux of the great host which was to follow. I am proud to say that the detachment behaved well and presented a good appearance in those early days.

On the evening of August 10 the officers of our unit gave a dinner to the French officers, headed by Lieutenant Colonel DuMaigny, who were about to leave their hospital. We had as guests Brigadier General Clarac, Captain Patten, U. S. N., and Mr. Bucklin, the American Consul.

From the first we functioned as a hospital. We prepared a few wards and gradually added to them as our cleaning and painting progressed, but it was a long, slow process to get the hospital in shape. It seemed an interminable time before we got all the French out. Much time was spent in bargaining for adjoining land and buildings. We started the work of making the hospital with our own people. My diary shows that O'Neil was in charge of policing the grounds; Clark, building latrines; Leland, painting; Aub, screening; Binger, meeting vessels; White, installing dispensary; Irving, shower baths; Moss, fire protection; Mixer, exterminating vermin and in charge of Operating Building in Davis's absence.

On August 23, Major Davis, Captains Adams and Vincent were ordered to Ris-Orangis, on temporary duty.

We were at work on plans for a new kitchen and dining rooms, for sewer and new local drains, new plumbing and a heating plant for the part of the hospital which used the central heating.

About the last of August, Maj. Larry B. McAfee was made Surgeon to Base Section No. 2, and Lieutenant Means succeeded Major McAfee as Adjutant, Base Hospital No. 6.

On September 4, Colonel DuMaigny definitely turned over the hospital to us, and all of the French had left with the exception of two or three small families of the faculty of the Lycée, who still lived in the main building. German prisoners were working for us.

Early in September, Company C of the 18th Engineers came to the hospital, was quartered in the Lycée Building, and went to work on our construction.

On September 17 we staked out our new kitchen and dining rooms. It was very difficult to place our buildings because the French were so careful of their trees. About this date we finally got rid of the families of the professors for a consideration paid by the United States Government.

Colonel Winter visited us on September 18.

Late in September we finally secured the neighboring Colin estate, which made it possible for us to build new wards and gave us the château for officers' quarters.

On September 28, Captains Vincent and Merrill, Lieutenant Aub, three nurses and two orderlies went to Le Berquet for duty with the French, and Captain Moss went to Limoges on temporary duty to prepare the way for a base hospital unit to be situated there.

The location of our Red Cross Hut was settled at this time, and we were ordered to give up our Post Canteen.

My diary at this time speaks of the difficulty of getting the Engineers to start their larger task of construction. I protested in writing and verbally to Colonel Kavanaugh, then commanding the Base Section, but received small satisfaction.

Major Cabot and Lieutenant Clark came back from two weeks at the British front.

On October 7, Captain Craigin, of the Engineers, at last received authority to order his material. The large stoves, long since ordered from the Quartermaster, did not come. Captain Vincent and his team were reported at Soissons. Lieutenant Means went to Bazailles, Chaumont, and Dijon. Miss Parsons went to a Conference of Chief Nurses at Paris.

October 16, Ether Day, Major Cabot made an address to the officers, nurses, and soldiers in one of the wards. In the evening the officers dined at the Hotel Bayonne.

On October 26, General Blatchford inspected and seemed satisfied with the progress made. I was not. Captain Allison, of the St. Louis Unit, visited the hospital. Captain Adams left us in company with Captain Allison to visit Tours and Lyons on orthopedic and reconstruction work. Major Cabot left us to go to Paris on refugee work. Bishop Williams visited us.

On October 28, General Pershing inspected and seemed pleased with what he saw.

Early in November a letter was received from Colonel Winter saying that General Blatchford was much pleased with

the progress of the hospital. This was published to the Command. A note entered on November 2 shows that the kitchen and dining rooms were being framed. The part of the work which was to be done by the French engineers, the erection of new wards, isolation wards, barracks and nurses' quarters, proceeded very slowly. It takes infinite time to get the French going; first to get the plans drawn, then to get the contracts let, and finally to get the work started and carried to completion. Our sewer was progressing fairly well, being built by Company C of the 18th Engineers. The plumbing contract was let on November 2, and the Château Crespy was turned over to us for use as officers' quarters. Construction, cleaning, painting, installation of stoves and plumbing, were all proceeding in every direction. Lieutenant Heard was a valuable assistant, first as draftsman, then as inspector of construction. The French contractors really arrived to start their part of the construction in the middle of November.

On Thanksgiving Day the men and patients had an excellent dinner, both served by the nurses. The officers' and nurses' dinners also were good.

On December 2, I sent plans to the Chief Surgeon, A. E. F., for twelve more wards. The French contractors were very slow. The main sewer was laid and the septic tank begun. At this time we had 215 patients. We had some cerebro-spinal meningitis. Many of the unit were sick with colds.

We were visited during this autumn by Majors Goldthwaite, Mosher, and Osgood, on visits of inspection connected with their specialties; and by Drs. Crockett and Lord, who were inspecting American hospitals in behalf of the Red Cross.

On December 16, Captain Graham was placed in charge of construction at our Base Hospital, and Captain Cook was placed in charge of all construction for the Base Section. These men were Engineer Officers and both were energetic. There was good promise of more rapid progress.

Company C of the 18th Railway Engineers left on the 10th of December.

My diary says that "since we have been in Bordeaux there have been six different base commanders and three different generals in command of the Lines of Communication."

A note of January 13, 1918, states that we were caring

for four hundred patients, many very sick, pneumonia and a number of cerebro-spinal meningitis cases. The construction progressed slowly now that the French Engineers were held up by cold weather, and also because of the difficulty in getting the French Government to let go of the needed material. Captain Dautet, now in charge, was much more interested and energetic than was his predecessor. The work under the American Engineers was delayed by lack of transportation and material. "Today succeeded in getting two trucks for the use of the American Engineers only, assigned definitely to the use of this hospital. . . . We have met all the demands made upon us so far and I believe we can continue to do so provided we can get our sewer connections pretty soon."

At about this time Miss Lucy Fletcher, one of our nurses, and a graduate of the Massachusetts General Hospital, was taken ill with cerebro-spinal meningitis, from which she died after a lingering illness. Miss Mary F. Emery, another graduate of our hospital, was operated for cancer of the stomach. She recovered from the immediate operation, but was sent home to the United States, where she died in an army hospital. These were the only fatalities amongst our nurses during their service in the army. We were fortunate enough to lose none of our officers. One enlisted man of the original unit died in the service, Pvt. Allyn M. C. Berrie.

Our medical officers, two at a time, had been ordered to the British and French fronts for observation of the methods of handling the wounded. On February 5 it was my turn to have this experience. On that day I journeyed to Paris, and on February 6, attended the Clinic of Professor Tuffier, and in the afternoon listened to a paper by Professor DuPage. Called on Col. Jefferson R. Kean at his office. He was now in command of what had been the American Ambulance Corps. This was taken over by our army for service with the French. Lieut. Col. Percy Jones was the second in command. Colonel Jones later succeeded Colonel Kean in command of this organization. In the evening I went to a formal dinner of the Directors of Base Hospitals, at the Hotel Crillon. General Bradley was present, and among others were Doctors Finney, Brewer, Poole, Crile, Hutchinson, Murphy, Blake, and Keller.

On February 7, visited Major Babcock, who was in command of the Officers' Hospital, fitted by Mrs. Whitelaw Reid.

This was in a studio building, used in time of peace for American girl art students in Paris. I spent the afternoon at American Military Red Cross Hospital No. 1, over which I was shown by Major Hutchinson. Dined that evening with Colonel Kean and Lieut. Col. Percy Jones at their quarters.

Took the train for Camier the next morning. On the train was Maj. George Derby, of the staff of the Massachusetts Charitable Eye and Ear Infirmary, on his way back to Base Hospital No. 5 at Boulogne. Reached Camier in the afternoon and reported to Colonel Collins of the Regular Medical Corps, in command of Base Hospital No. 18, serving there with the British. The quarters assigned me were a tent, with no possibilities of heating it. Lieut. Col. Hugh Cabot, in command of British General Hospital No. 22, a short distance up the road, offered me the use of one of his small portable huts, which he had brought from America for officers' quarters. I understood that this hut was built in Braintree for a chicken coop. It was almost large enough for me, and I passed a very comfortable night.

Major Cooper, in command of the Base Hospital at Savenay, and Major Tasker, in command of the Base Hospital from the New York Hospital at Châteauroux, were my associates on this trip. We spent the morning of February 9 with Colonel Cabot. His hospital was neat and everything appeared business-like. I saw a number of Massachusetts General Hospital men who were on his staff and a good many Massachusetts nurses, among them Miss Stevens, who was assistant to the head nurse. In the afternoon we went to Etaples and visited a large British Convalescent Camp. It seemed to be admirably handled and very useful.

On February 10, went to Boulogne. Found Base Hospital No. 5 (Peter Bent Brigham and Harvard Medical Unit) established in the Casino, Maj. Roger I. Lee in command. The whole of this unit was so distinctly a Boston crowd, and so many of them were connected with the Massachusetts General Hospital and the Eye and Ear Infirmary, that I felt very much that I was in the hands of friends. They were running an excellent hospital and had a good spirit. While in Boulogne I went through the British Gas School.

On February 12 we left for Hazebrouck by way of Calais. There were several regular medical officers with me, men who were in command of base hospitals. At Hazebrouck we were split up, and Major Tasker and I were assigned to Casualty

Clearing Station No. 2. This casualty clearing station was about two miles from Bailleul and commanded by Colonel Leek, a regular of the British Army Medical Corps. The station had for shelter Nissen huts and tents. I was given for quarters, one-quarter of a Nissen barrack, which was divided by burlap into four rooms; perfectly comfortable. It was a very quiet time on this front and the casualty clearing station consequently was not very busy. Colonel Leek was very courteous and explained to us in great detail the British methods of handling wounded.

On February 15, Major Chapman, R. A. M. C., an Australian attached to Corps Headquarters, took us by automobile to the British front. We went first to an advanced dressing station lying about three and a half miles to the northeast of Ypres. Here we found Major Brown in command. His station was a building at a cross roads, of which nothing remained but the cellar. The first floor was piled high with sandbags. There were in addition subterranean excavations. Here was a mess and sleeping rooms for officers, another for men, and a dressing room and waiting room for patients. There were two entrances, both with double curtains to protect against gas. Across the street they were building other dugouts, partially above the surface, and protected by earth and cement bags. Each dugout was arranged to take twelve stretcher cases. This advanced dressing station was a divisional unit. From here Major Brown escorted us. We put on our tin hats, put our gas masks in "alert" position, and changed to an ambulance, in which we went about one mile, the rest of the way on foot. We passed through devastated country all the way—trees torn and dead; many shell holes, mostly old, a few new; the ground littered with old wreckage; on either side heavy guns, light guns, and anti-aircraft guns. We went through old trenches on duck boards, then left the duck boards and went around old shell holes, barbed wire, and wreckage of all sorts, to the famous Hill 60. An enormous crater beside this hill, with considerable water in it, was a relic of one of the mine explosions before the British captured the hill. From Hill 60 we had an excellent view of the devastated country, trenches and Ypres in the distance. On the way to this hill we stopped at another advanced dressing station in a dugout. Here the surface water was so high that it was necessary to keep pumping all the time. In this section were a number of cement

pill boxes, which had been built by the Germans. The British were using one of these for a stretcher station. We came back through Ypres; a sorry sight—not a whole building standing, the ancient rampart and moat being the only things about the city which were not much disturbed. Back to Casualty Clearing Station No. 2 in the afternoon. My diary speaks of heavy firing all that evening.

On our last day here Colonel Leek and certain of his officers took us to a theater in Bailleul, where the Tommies gave an excellent vaudeville show.

Major Tasker and I, on our return from this trip, stopped over night in Amiens and visited the cathedral. At Paris we went to the opera in the evening, and while we were there an air raid alarm was sounded; the opera stopped and we were all warned to go to the corridors, which were better protected than the large hall. There was much firing of anti-aircraft guns, but it turned out to be a false alarm caused by the return of certain French aëroplanes, which were mistaken for Germans.

Back to Base Hospital No. 6. Under note of March 13 my diary says that Gen. Leonard Wood and his Aide, Major Williams, visited us last week. They were awaiting the sailing of the *Espagne*. General Wood spent the whole afternoon with me at the Base Hospital and expressed himself as very much pleased with what we were building in the way of a hospital and organization. Under date of March 13 I also find that Secretary of War Baker and General Pershing inspected the hospital, accompanied by General Black, Chief of Engineers, and General Patrick; accompanying them were General Scott, Commanding Officer of Base Section No. 2, and his staff. My journal records that Secretary Baker said that this was the best military hospital he had seen, and that he carried away very pleasant impressions. Let us hope that he did not say this at every hospital he visited.

On April 5 we had our first large convoy, 326 American soldiers in one of the new American hospital trains. The unloading of the train and the transportation of the wounded to the hospital was entirely in the hands of our organization, and although it was our first experience, it went off fairly well. Lieutenant Leland was Debarkation Officer, Lieutenants Hodgson and White assisting him. Captain Mixter as Registrar handled the receiving end. As this was our first experience, we tried to take too many records on the admission

of the patients. The patients began to arrive at the hospital at 11.45 P.M., and the last one was not in bed until after 4 A.M. However, they were all convalescents or had never had much the matter with them, so no harm was done. My diary records this impression: "If they had been Germans fifty per cent of this convoy would have been on the firing line." These patients were evacuated from another hospital to us.

During all this time, construction of our new ward buildings, our storehouse, our kitchen, dining rooms, quarters for nurses and men were progressing steadily; a laundry was built, the garage expanded, and an entire plumbing system installed, a sewer and septic tank built, and refrigerating plant installed. Increased water and electric supplies were brought in. The amount of negotiation required and the continual pushing involved in getting these accomplished is difficult to describe and carry to the reader any adequate conception. It was oftentimes very discouraging work.

About this time the hospital was visited by Mr. and Mrs. Louis Frothingham and by Mr. Herbert M. Sears, one of the Managers of the Massachusetts Charitable Eye and Ear Infirmary. Mr. Sears had performed an excellent service behind and close to the French front, near Dunkirk. He ran a canteen there for the French soldiers, a service which was much appreciated. It was cheering to the whole unit to see these home people.

On April 22, I went to Tours, Headquarters Service of Supplies, A. E. F., and saw General Bradley, who informed me that he wished me to go to England to build up the American hospitalization there. The American troops were to come through England in large numbers and the hospitalization was inadequate. I dined at General Bradley's mess that night; with us were Colonels McCaw, Glennon, Reynolds, and Fisher.

I went back to Bordeaux, and soon received orders relieving me from command and appointing Maj. Warren L. Babcock to succeed me. I left Bordeaux the latter part of April, and after a delay of three days at Le Havre, reached England on May 1, 1918. The story of service in England will be told elsewhere in this volume.

Generals Bradley and Ireland, Chief Surgeons of the American Expeditionary Forces, and Gen. Francis A. Winter, Chief Surgeon, Lines of Communication, were a source of great strength to us. They stood firmly behind us in our

plans for growth and organization. They had the vision of what would be needed later which was not always present in the minds of other staff officers and line officers in whom power was vested.

When I left much of the new construction was completed or nearly so, and all of it well along toward completion, except the huts finally used for the men's barracks, buildings which were entirely installed later. The great mass of the sick and wounded came to Base Hospital No. 6 after I left.

I would like to record here my appreciation of the splendid organization which went out from the Massachusetts General Hospital. Whatever demands were made, there was always a trained person ready with the knowledge and ability to carry out the task. The hospital itself cared for many patients and was, I firmly believe, one of the real sources of strength of the Medical Department of the American Expeditionary Forces.

All of our unit were volunteers. The spirit of the Crusaders was present with them. They had, many of them, made sacrifices and forgotten all thought of material advantage to do their part in the great work of defeating the "Hun" and making the accomplishment of his wicked plan impossible. In this they were examples of the spirit present in so many Americans, as well as citizens of the allied countries. It was this spirit which made possible of accomplishment the work which Base Hospital No. 6 performed. No other writer in this book is likely to say this, so I feel that I must say it for them.

I am aware, when we compare the offering of men and women of this unit with that of those who gave their lives to the cause, that it is but little. In the presence of the dead we stand humble and reverent. Nevertheless, Base Hospital No. 6, like many others, did what it was called upon to do, and did it in a spirit of commendable devotion and sacrifice.

CONSTRUCTION AND DEVELOPMENT

W. L. BABCOCK

THE construction program for a base hospital of 2,200 beds had been inaugurated when the writer assumed command of the hospital, soon after the middle of April, 1918. Contracts had been made with French contractors, through the French Military Engineering Service, for the construction of Groups 5, 6, 7 (Isolation Barracks), and 8 (original Nurses' Group). Group 3, which had been constructed entirely of wood and connected by a long board corridor with the Lycée buildings, was three-fourths completed. The American Engineers (originally Co. C, 18th Railway Engineers) who had received orders to construct Group 4, later built the Adrian barracks group for enlisted men. Previous to this time, the American Engineers had built the main kitchen and mess-hall, warehouse, central heating plant, sterilizing plant, and installed sanitary plumbing in a part of the Lycée buildings, which installation was later completed.

Château de Breuil had been leased for the housing of nurses, and a few acres of ground in the rear of the hospital leased by the representatives of the American Red Cross for garden purposes. Château Crespy was prepared for the occupancy of officers.

Such, in brief, was the material setting which presented itself in mid-April, 1918. Here, on this French site of approximately sixty-seven acres, ensconced in a grove of sturdy oaks, was the nucleus for the development of one of the largest single base hospitals in the A. E. F.

The construction of buildings and development of the original plans progressed slowly throughout the summer of 1918, beset now and then with obstacles which at that time were considered of some seriousness, but, in the light of successful accomplishment, diminishing with the perspective. Groups of buildings, originally planned of wood, had to be abandoned for tile, because lumber was not readily obtainable. Hollow building tile, manufactured in the vicinity, was requisitioned and the plans altered to conform to this type of construction. Delays in French construction on account of lack of laborers threatened again and again. With the exception of numerous minor changes in the structural plans,

the original conception was carried out. It is worthy of comment here that the original plans were completed in the face of some criticism and opposition from G. H. Q. and the American Engineers, because of what they termed semi-permanent construction. That this type of construction was well conceived was borne out by our experience in the fall and winter of 1918, during which Bordeaux and vicinity experienced an unusually disagreeable rainy season. Even the naturally buoyant American cannot convalesce happily in mud. The Medical Department of the army acquired, during its service in the A. E. F., certain experiences of inestimable value. It was demonstrated that the fundamental precepts relating to satisfactory hospital sites cannot be violated without a decrease in efficiency and a limitation of results. The Americans who experienced a course of treatment in the few hospitals, or hospital centers, located in mud holes, have a post-war psychology that may be noted in any personal account of experiences. As a hospital site, that of Base Hospital No. 6 was far above the average for France, and the type of construction chosen was necessary to its proper functioning as a hospital.

The selection of the sites of the various barrack groups was more or less influenced by restrictions in the lease of the property, which forbade the cutting of trees. Only the open spaces in the groves, therefore, were available. A persistent effort was made to link up the various isolated groups of barracks in one continuous chain by means of walks and corridors. Though this plan met some opposition because of labor and material involved, it was finally consummated, and our experience during the rainy season more than justified the effort. It simplified the transportation problem from group to group.

It early developed that the transportation of the wounded from the trains arriving at the Midi Station, in Bordeaux, to the hospital would present many difficulties when full trains of wounded arrived for debarkation. Early in May strenuous efforts were made to induce the French military authorities to push the completion of the railroad station under construction at La Medoquine. This station was within less than two kilometers from the hospital. Its use would preclude the necessity of transporting the wounded through the city of Bordeaux. Though intended as a permanent railroad

station, its type of construction was happily adapted to our use and permitted the unloading of several cars of wounded simultaneously. The acquirement of this station was one of the outstanding developments of the summer of 1918. It was placed in use before completion, and functioned early enough to permit our handling the larger trains and greater number of wounded there.

Orders from the office of the Chief Surgeon early in August, 1918, required that every effort be made to expand the bed capacity of the hospital. Under these orders an emergency or crisis capacity was established by erecting tents, placing cots in corridors, adding cots to barracks, and utilizing every available space in all buildings. The normal capacity had been increased to 2,850. In response, 1,500 beds were added, thus bringing the total normal and emergency capacity up to 4,350. The prophetic necessity was illustrated by the desperately crowded condition of the hospital on November 12, twenty-four hours after the armistice was declared, when the roster showed 4,319 patients present.

The Château de Beycheville, which was offered by the American Red Cross to the Medical Department (May 1, 1918) for use as a convalescent hospital for officers, was one of the fortunate acquisitions of the army. Presented to the American Red Cross by a public-spirited French woman, it was placed in the hands of Base Hospital No. 6 for administration. Its furnishings, environments, and maintenance offered surroundings that were a boon to convalescents. It supplied a break in the weary monotony of convalescence in a large base hospital. It functioned successfully until several weeks after the armistice, and its occupancy can be pointed to with pride.

Early in July, 1918, the attention of the Chief Surgeon, Base Section No. 2, and of the Commanding Officer of Base Hospital No. 6, was directed to the French Cures Agricoles, established through the wisdom and under the supervision of Lieut. Col. J. Bergonié, of the French Service de Santé. Briefly, this plan contemplated the distribution of convalescing French wounded to country hospitals and their utilization in French vineyards and on French farms for the double purpose of providing occupational therapy and increasing production. Through the kind instrumentality of Colonel Bergonié and with the approval of the Chief Surgeon, A. E. F.,

Base Hospital No. 6, was permitted to avail itself of the accommodations of some of the already established French Cures Agricoles. For the Americans, it was an experiment of doubtful expediency, for reason of the difference in language, diet, and social habits. In July a small group of selected wounded was sent to the French Cure Agricole, at Cerons, and in August, groups were sent to Martillac and Preignac. Their treatment was supervised by Colonel Bergonié with beneficial results. The experiment, which was limited to enlisted men, was continued until the armistice. During these months many happy days were spent in French homes and vineyards by a few American doughboys. As a result of this experiment, it may be stated in brief that the plan was not susceptible of any wide extension in France, because of social divergences and transportation difficulties. It may be said to have been highly successful in the French service, and should be utilized by the American Army in this country if another day of opportunity offers. Between July 28 and December 1, 1918, 169 selected wounded American soldiers were distributed to the three French Cures Agricoles. As to duration of stay, 30 soldiers averaged under 30 days; 57 averaged 34 days, 44 averaged 40 days, and 28 averaged over 40 days. As to results of treatment, 152 soldiers out of 169 were discharged to Class "A" duty ultimately, and the remaining 17 were otherwise classified, or remained in the hospital. In conclusion, it may be said that the discipline of the soldiers under these conditions offers some difficulty, although in our experience it was a negligible feature. Transportation was a considerable problem, especially during the latter weeks of the war.

The most happy relations were always maintained between the hospital and the French military authorities. The French officers, from General Hallouin, Commanding General of the 18th Region, down to the French Sergeants in charge of the French wounded in the hospital, were men of the highest type, who endeavored in every way to assist in meeting the problems that faced the administrative, constructive, and professional work of the hospital. Major de Laigue, liaison officer representing the French Service de Santé, was always a tower of strength, affability, and resourcefulness. Captain Dautet, of the French Engineers in charge of construction, gave to his duties great initiative, forcefulness, and courtesy.



WHAT WE FOUND AT THE LYCÉE



LE MÉDECIN CHEF



ENLISTED PERSONNEL UNDER CANVAS ON THE COLIN ESTATE



U. S. Official
THE DETACHMENT BY THEIR BARRACKS AT TALENCE



U. S. Official
THE LYCÉE FROM THE REAR SHOWING GARDENS

Our relations with both of the above officers are happy memories of deep obligations, unfailing courtesy, and definite accomplishments.

Col. J. Bergonié, Médecin-Chef 1st Classe, l'Hôpital Complémentaire Français No. 4, constantly placed his influence and resources at the disposal of the American officers. His entertainments at his country home, "La Floquette," will always be pleasant memories to the Americans who participated. In this he was seconded by his charming wife. It is a pleasure to record that the Surgeon General's office presented Colonel Bergonié with a letter from the War Department, testifying to the deep obligations we were under for the whole-hearted and practical assistance that he gave the American forces throughout the war, especially the use of the French Cures Agricoles by convalescing American soldiers, as detailed elsewhere. Professional courtesies too numerous to mention were constantly in evidence from the representatives of the French Service de Santé, who were on duty in Bordeaux. Never to be forgotten were the social relations with representative French families in the neighborhood of the hospital. The officers and nurses were frequently entertained in a charming manner by the Marquis and Marquise de Vivier, M. and Mme. de Luze, and M. Marcel Vayssieré. The Franco-American social, literary, and musical entertainments, which Colonel Cabot so splendidly fostered, always had the coöperation and support of these magnificent French families. The officers, nurses, and enlisted men of the unit were received socially into a score or more of the best families of Bordeaux and its environs, thus testifying to the mutual good will and hospitality of our French allies. Social contacts with larger French groups were frequent, especially with the Association of Vineyardists, of the Girondin. The arrangements for these parties were usually consummated, on the part of the Americans, by Lieut. Col. Lloyd Collis, Q. M., whose good fellowship was rewarded by the presentation of a silver medal from the citizens of Bordeaux.

At a time when some of these organizations are under criticism for alleged failures to function in war activities, it is a pleasure to record the deep obligation of officers, nurses, and enlisted personnel of Base Hospital No. 6 to their Bordeaux representatives. The Rev. Mr. Thompson, of the Hospital Y. M. C. A., and Major Mygatt, of the Red Cross,

were untiring in their efforts to promote the recreation, entertainment, and material well-being of the organizations. The former, during an incumbency of several months as a Y. M. C. A. representative at the hospital, frequently worked to a point of physical exhaustion in looking after the multitudinous duties of this position and supplying numerous wants of the patients and personnel. The Red Cross took over the recreational and volunteer relief activities of the hospital on November 1, 1918. Many other representatives of these organizations, the Knights of Columbus and Salvation Army, who were late in the field, worked assiduously to promote the interest of all. It cannot be conceived that the sick and wounded, or the personnel of Base Hospital No. 6, under the circumstances, have any cause for criticism of these organizations.

It is recalled that August, September, and October, 1918, were months of stress and anxiety, throughout which the officers, nurses, and men labored under the highest degree of pressure. It is the duty of the Commanding Officer in charge during these months to record the unselfish sacrifices, hearty coöperation, and the strenuous labors of officers, nurses, and enlisted personnel directed toward the great objective. On November 1, 1918, the Commanding Officer was ordered to take over and prepare the Caserne Carayon-Latour (Pessac), about one and one-half kilometers from the hospital, for the reception of American wounded. With the assistance of a few men from a detachment of American Engineers, but largely through the efforts of the personnel of Base Hospital No. 6, this French Caserne was prepared for the reception of wounded to the number of 1,200. Though a part of the equipment arrived from the Medical Supply Depot, it was never used for patients because of the armistice, and the lease was surrendered on December 3, 1918. It was contemplated, originally, to operate it as a part of Base Hospital No. 6, but late in November these plans were changed. It was numbered Base Hospital No. 220, and Capt. G. A. Leland, Jr., who made a splendid record as Adjutant of Base Hospital No. 6, was made Commanding Officer.

Naturally, viewed in advance with apprehension by the officer personnel, the inspections of the Commander-in-Chief were inspiring and auspicious visits that stimulated endeavor. The second visit of inspection by General Pershing, on July 30,

1918, occurred in the midst of our constructive activities, at a period when the completion of the hospital was assured. His soldierly and felicitous address to several hundred convalescent wounded, from the platform of the Red Cross Hut, will ever be remembered by those who heard it.

The relations between the hospital and Headquarters Base Section No. 2 were always amicable. The Commanding Generals in succession, Brigadier Generals Scott, Connor, and Walsh, and the Surgeons, Base Section No. 2, were ever ready to coöperate and assist in every way possible. Col. Henry A. Shaw as Base Surgeon, especially rendered invaluable assistance during the construction period of the hospital. It is due the officers, nurses, and enlisted personnel, all of whom energetically strove to meet every demand, that the following letter be made a matter of record:

HEADQUARTERS, BASE SECTION NO. 2,
SERVICES OF SUPPLY,
A. E. F., FRANCE.

August 19, 1918.

632.

From: The Adjutant.

To: C. O., Base Hospital No. 6.

Subject: Condition at Base Hospital No. 6.

1. Upon the recent visit of the Base Commander to your hospital he noted with a great deal of satisfaction the excellent condition existing there and of the very efficient work being done.

2. He desires me to express to you his hearty appreciation of the efforts of yourself and of all of your personnel.

CHAS. A. GREEN,
Major F. A.,
Adjutant.

Every effort was made by all organizations to coöperate with the French in the celebration of their national holiday. Perhaps no single feature of the parade and celebration attracted as much attention as did the nurses from Base Hospital No. 6, who paraded to the number of one hundred. Comments on their showing in this parade appeared in many newspapers in France; moving pictures of this feature of the parade were exhibited in many cities of France soon thereafter, and the following letter is appended herewith as a matter of record and just appreciation of the splendid showing made by the nurses:

AMERICAN EXPEDITIONARY FORCES
HEADQUARTERS, BASE SECTION No. 2, S. O. S.
OFFICE OF THE QUARTERMASTER,
FRANCE.

July 15, 1918.

335.2

From: Lieut. Col. Lloyd Collis.

To: Lieutenant Colonel Babcock.

Subject: French National Holiday, July 14, 1918.

1. Gen. W. S. SCOTT, Base Section Commander, desires to express to you his thanks for the superb showing of the detachment of American Hospital Nurses in the parade, held on the morning of July 14 in Bordeaux.

2. The enthusiastic manner in which they were greeted throughout the line of march, and especially before the Tribune on the Quinconces, was well merited, and nothing in the parade gave the General more pleasure than this worthy reception to this most important branch of the service.

(Signed) LLOYD COLLIS,
Lieutenant Colonel Q. M. C.,
Officer in charge.

Few hospital units left the States as well equipped in professional personnel as did the Massachusetts General Hospital Unit. Though numerically submerged later by the addition of other units and casuals, Base Hospital No. 6 maintained throughout its entire history the high ideals and unswerving loyalty of purpose that were characteristic of the original unit. The leavening influence of the highly trained professional groups was constantly apparent. Unit O, which joined the hospital in February, 1918, was composed of the highest type of manhood and womanhood of the South, and brought a high average of professional training and ideals. Their amalgamation with the original unit produced an ensemble that enabled successful absorption and hospitalization of a scattered and untrained stream of casuals who followed. The writer, himself a casual from a military standpoint, feels justified in a few personal references.

The first Commanding Officer was a hospital administrator of well-known ability. He brought to his work a training and military experience acquired as a volunteer officer in the Spanish-American War. Base Hospital No. 6 was the only one of the early base hospitals commanded from the start by a civilian medical reserve officer. Colonel Washburn's dis-

crimination in the selection of officers, nurses, and enlisted men is worthy of record. Other chapters in this history give in detail the results and accomplishments of the medical and nursing services. The well-known versatility of the chief of the medical service had splendid opportunity for expression. In addition to organizing and supervising a large medical service, he found time to do special work for the Red Cross in Paris; visited the British front in Belgium; organized and conducted a choir; directed a number of entertainments; fostered a local orchestra; assisted in the recreational arrangements for patients and enlisted men; delivered regular addresses on current topics; promoted many social contacts with French families in the vicinity of the hospital, and wrote a book or two.

The surgical department, with one chief at the front and the other at the hospital, added luster to its records. It is known that the Surgical Teams headed by Lieutenant Colonel Davis, Major Vincent, Captain Crawford, and Lieutenant Clarke made a splendid record in Evacuation Hospitals. They have a record and history of their own, which can but reflect credit on their original unit. Space will not permit greater elaboration of the work of these and other medical officers. The medical and surgical history will be found in other chapters.

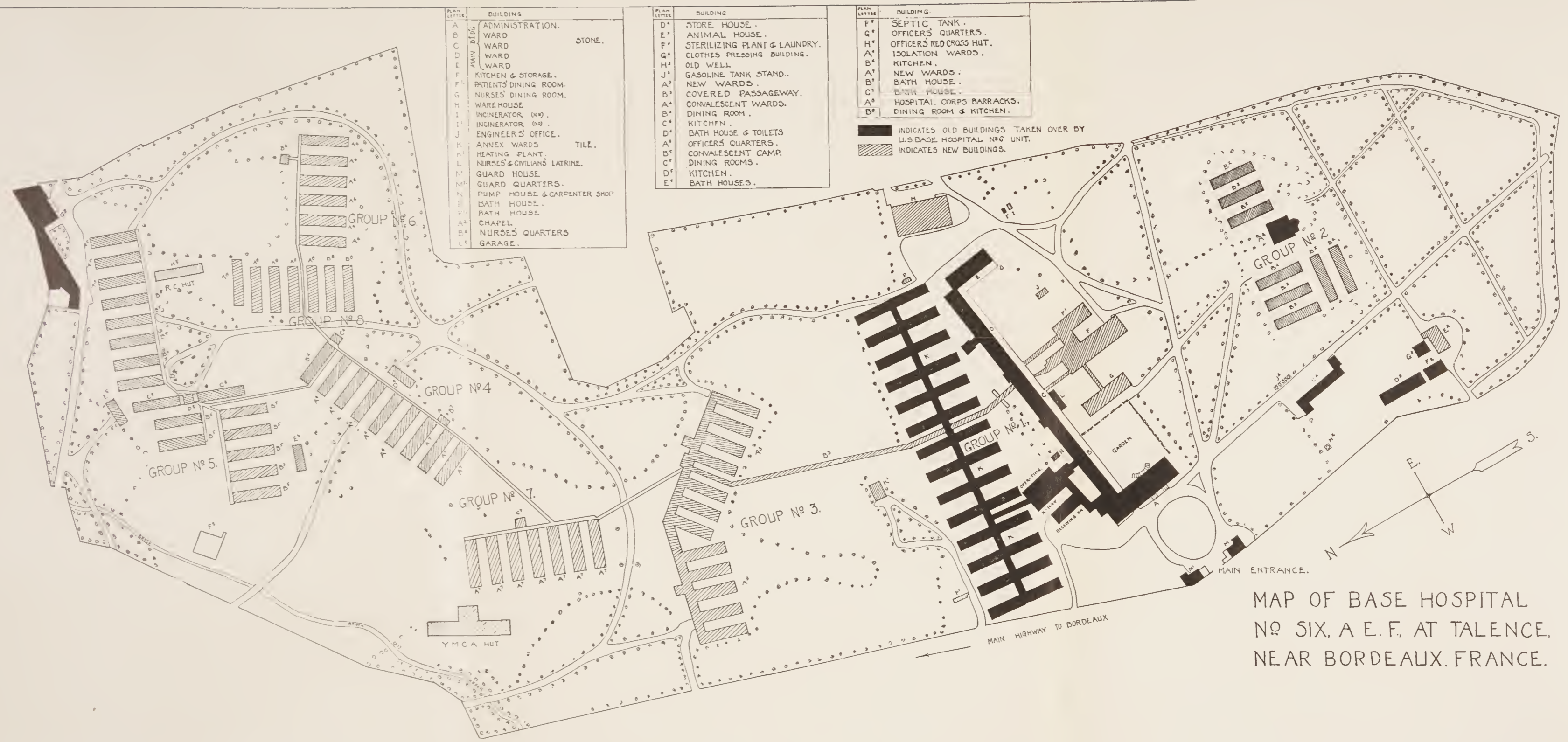
The nursing service of Base Hospital No. 6 was of the highest possible type. Week after week, the nurses devoted themselves, without thought of rest or self, to the care of the sick and wounded. The shortage of nurses, the long hours of duty, the frequent emergency calls, the restrictions of military life, and the condition under which we lived and worked, testify to the endurance and spirit of the nurses. The nurses who were ordered for special duty on surgical teams, Red Cross Service, care of wounded on trains, and other special assignments, acquitted themselves with honor, and added to the reputation of the unit.

The high percentage of well-educated men among the enlisted personnel was of the greatest assistance in the administration of the hospital. It is regretted that the restrictions of military orders prevented a larger number of these splendid men from receiving the promotions and commissions that their service and sacrifice merited. Without them, the history of Base Hospital No. 6 would be differently written.

Early in January orders were received from the Chief Surgeon, A. E. F., to turn over Base Hospital No. 6 to the Commanding Officer of Base Hospital No. 208. On January 14, 1918, the buildings, equipment, and properties were turned over to that organization, and Base Hospital No. 6 ceased to function as a hospital. Directly thereafter the Commanding Officer received an order from the Chief Surgeon, A. E. F., to embark for the States in charge of a transport of wounded, and on January 18, 1918, the command of the personnel and unit was turned over to Lieut. Col. Lincoln Davis, M. C.



MAP OF BASE HOSPITAL
NO. 24, A. E. T. DISTRICT
BEAR BORDERS, FRANCE



PLAN LETTER	BUILDING	MATERIAL
A	ADMINISTRATION.	STONE.
B	WARD	
C	WARD	
D	WARD	
E	WARD	
F	KITCHEN & STORAGE.	
G	PATIENTS' DINING ROOM.	
H	NURSES' DINING ROOM.	
I	WARE HOUSE	
J	INCINERATOR (NEW).	
K	INCINERATOR (OLD).	TILE.
L	ENGINEERS' OFFICE.	
M	ANNEX WARDS	
N	HEATING PLANT.	
O	NURSES' & CIVILIANS' LATRINE.	
P	GUARD HOUSE	
Q	GUARD QUARTERS.	
R	PUMP HOUSE & CARPENTER SHOP	
S	BATH HOUSE.	
T	BATH HOUSE	
U	CHAPEL	
V	NURSES' QUARTERS	
W	GARAGE.	

PLAN LETTER	BUILDING
D ¹	STORE HOUSE.
E ¹	ANIMAL HOUSE.
F ¹	STERILIZING PLANT & LAUNDRY.
G ¹	CLOTHES PRESSING BUILDING.
H ¹	OLD WELL
J ¹	GASOLINE TANK STAND.
A ¹	NEW WARDS.
B ¹	COVERED PASSAGEWAY.
A ²	CONVALESCENT WARDS.
B ²	DINING ROOM.
C ²	KITCHEN.
D ²	BATH HOUSE & TOILETS
A ³	OFFICERS' QUARTERS.
B ³	CONVALESCENT CAMP.
C ³	DINING ROOMS.
D ³	KITCHEN.
E ³	BATH HOUSES.

PLAN LETTER	BUILDING
F ²	SEPTIC TANK.
G ²	OFFICERS' QUARTERS.
H ²	OFFICERS' RED CROSS HUT.
A ⁴	ISOLATION WARDS.
B ⁴	KITCHEN.
A ⁵	NEW WARDS.
B ⁵	BATH HOUSE.
C ⁵	BATH HOUSE.
A ⁶	HOSPITAL CORPS BARRACKS.
B ⁶	DINING ROOM & KITCHEN.

INDICATES OLD BUILDINGS TAKEN OVER BY U.S. BASE HOSPITAL NO. 6 UNIT.
 INDICATES NEW BUILDINGS.

MAP OF BASE HOSPITAL
 NO. SIX, A. E. F., AT TALENCE,
 NEAR BORDEAUX, FRANCE.

HOSPITAL CONSTRUCTION AT TALENCE

RALPH P. HEARD

IN the early part of September, 1917, Base Hospital No. 6 was housed in that group of buildings marked K, Group No. 1, on the map of the hospital.

It was arranged that certain portions of the Group No. 1 should be occupied by the American hospital and the remainder by the French hospital in residence on our arrival.

As I am not familiar with the moves made in the various departments that led up to the need for expansion, it will be understood that after some plan of action was decided upon by the Commanding Officer and his Adjutant, they cast about for greater space, and the first physical changes were contemplated in the kitchen.

Some plans were laid out in a very rough way—in fact, they were not even at any given scale, as I recall—then came the question of permission from the French to make such changes as the Americans needed. Obtaining permission to move, or add in any fashion to that which existed before our arrival, proved a very vexing problem many times in the days that followed the conception of a larger hospital.

One morning it was announced that a set of plans of the entire Group No. 1, which was comprised of buildings A, B, C, D, E, and K, should be made at once. The first five buildings were of stone, three of them three stories in height; D and E, four stories. All but A had wide marble stairways and landings of a cement composition; A, which became the Administration Building, had oak stairways. With the exception of the stair halls these buildings were equipped throughout with hardwood floors. The walls were of a stone similar in appearance and texture to our Indiana limestone, and about 18 inches in thickness, the roofs of tile, and all windows were casements opening into the rooms.

The part of the group marked K was added by the French, having been built for the operating and X-ray department, and to house patients. There were under the French Médecin-Chef, twenty-eight wards of twenty beds each. At one end, near the long passage, were two rooms used for supply rooms, and at the far end were the toilet rooms, with the sinks and lavatories after the approved French type.

This building was built of hollow tile, one story in height, plastered on the inside and painted white. The windows were huge four-paned frames that swung from the bottom into the room, and were opened and closed by means of a cord fastened at the center upper bar of the frame and passed through a pulley fastened on the wall; as to screens, there were none at either doors or windows. All the woodwork in these wards had been given a coat of light blue paint. The floors were of wood and the roofs of a red composition tile.

In the buildings we found cold water and a supply of gas, which was possible to use at certain hours only. There were also electric lights, but heat was a factor that had not entered into the building of these wards, or even into the stone buildings, to any great extent.

With these buildings as a nucleus the plans were given over to the Commanding Officer, and he departed for Paris, where the G. H. Q., A. E. F., was stationed at that time.

Within the week the American Engineers sent us a representative, who said that it would be quite simple to install elevators, ice-making plants—both to be run by electricity—and a proper and adequate heating system; also to build, furnish, and equip a first-class hotel or hospital kitchen to feed five hundred patients, in addition to the officers, nurses, and men of the unit, at the time approximately three hundred people.

Recalling the stone walls of the five buildings and the hallways with their cement floors, I wondered at the Major's optimism, and asked if he had any notion of how we should waive aside these existing conditions; and one still greater question, where should we find the material to accomplish all this? We had only our own hospital corps men and our officers, about thirty in number, to direct and execute this vast program. The Major did not quite know, and he admitted as much to me as he gazed at the stone façade of building B as we stood in the little garden on the eastern side of the Administration Building.

However, we did get the loan of three men with proper equipment to make a survey of the entire property known as the Petit-Lycée. The Engineer Major did help us over this problem, but there he left us, telling our Commanding Officer that the plans must first be put in working form, and his three engineer corps men, added to the hospital corps men, could accomplish this result.

Draughting boards were ordered through the Q. M., material such as paper, pencils, pens, ink, etc., were duly purchased, two men were detailed from the company, and we went to work in earnest to put plans on paper for Base Hospital No. 6.

During the period that passed, between our arrival and the development of this full-fledged draughting room, minor projects had gone forward, such as the estimating and purchasing of wire screening for all the buildings of Group K. The windows had to be changed from the cord method, which was considered dangerous, to that of chains, and window sticks were made to open and close them.

There arose much difficulty with the gas supply, as we needed hot water and the supply was inadequate; also the plumbing arrangements were unequal to our demands for the care of patients; so taken by and large, there were a number of items which demanded immediate attention, aside from the new plan that was growing from day to day.

In the early part of October we were ready to erect our kitchen, dining rooms, and a warehouse that we needed for medical and Q. M. supplies, which were increasing daily, and which we were obliged to store in spaces we wished to paint and set up as wards.

The services of Company C, 18th Engineers, California, were given over to us, and the requisitions for materials were filled, enabling us to commence on actual building operations.

With the plans out of the draughting room and in the hands of the Engineers, we went on to the planning of Group No. 2 barracks for nurses; also at this time barracks were under consideration for officers and enlisted men.

These plans were based upon a barrack built by the French, which came in blocks, as Hodgson houses do, the units of which controlled our buildings, but as we needed certain spaces for definite purposes, it meant a bit of study before we were able to send these plans up for the G. H. Q.'s O. K.

For some reason there had been an agreement that the French Engineers should build us a certain number of barracks. I do not recall the circumstances; however, plans were made and the contracts signed for Groups 4 and 5 to be built of hollow tile walls, concrete floors in kitchen and dining rooms, wooden floors elsewhere, and all to be supplied with stoves. These buildings were to have slate roofs.

Once the lease was signed for the Colin estate, joining the Lycée property to the left on the map and north by the compass, we had an area a little larger than Boston Common under our control, subject, of course, to certain civil laws of the country.

This tract became a small village of Americans, with the standard of the Massachusetts General Hospital to be maintained.

The French began shipping materials in and breaking ground for their various groups of barracks; the American Engineers kept steadily at work on the kitchen and dining rooms, and the changes in the stone buildings in Group 1, such as installing plumbing fixtures, hot and cold water in all service rooms, shower baths and a heating plant. A sterilizer which the unit had brought from America was housed, and at this time we laid about one mile of sewer pipes on the Colin estate.

The Y. M. C. A. gave the contract for their building to their French builders after the Commanding Officer decided upon a location.

Having got everything well under way, it was decided that an isolation group was needed, so plans were made for Group No. 6. These, too, were contracted for, and ground broken for them in short order, as their general plan was not unlike that of our other wards.

Group No. 3 was started shortly after the completion of the kitchen and dining rooms, G., F., and F¹. This was just begun when the 18th Engineers were ordered up the line and Lieut. Samuel A. Graham, on detached duty, came out to take over their work.

Lieutenant Graham gave his whole-hearted assistance from the day of his arrival until he turned the completed buildings over to Base Hospital No. 6. The American Engineers left us, and in their places were sent civilian laborers, so that Lieutenant Graham had much work to accomplish with unskilled labor. Later he encountered labor troubles, which resulted in two strikes, because of dissatisfaction on the part of the civilians when they learned the prices Americans were paying in and about Bordeaux for local labor.

Finally all of our wards were complete, the water mains installed, electric lights, stoves for heating, service rooms fully equipped as originally specified, shower baths, tubs, and wash

basins all set, and a laundry and clothes pressing room added, in order to make the uniforms presentable after being sterilized.

An animal house was built for the housing of animals used in experiments by the base section laboratory, which had its headquarters at Base Hospital No. 6.

When the 11th day of November, 1918, dawned, Base Hospital No. 6 was operating under the title of one of the best base hospitals in France. This praise was earned by the hearty coöperation of officers, nurses, and enlisted personnel under the clear guidance of their Commanding Officer, who had the vision of this completed whole in the early autumn of 1917.

THE NURSES' POINT OF VIEW

SARA E. PARSONS

THE Nurse Corps of U. S. Army Base Hospital No. 6 was enrolled in 1916, and when the call came a year later for immediate preparation, there was hectic activity for a few weeks, filling vacancies and doing business by telegraph between Washington, Boston, and the various parts of the country where nurses were located. Every one had to meet Red Cross requirements, which meant three years of training in an accredited school, state registration, and good standing in her *alumnæ* society. It was also required that she be not under twenty-five years of age.

Each nurse had to be vaccinated and inoculated, examined physically, and her certificate accepted in Washington, before she became an accredited member of the unit.

This preparation was no easy task for nurses living out of Boston or doing private work. Fifty-five of the staff of sixty-four nurses were graduates of the Massachusetts General Hospital. Three were graduates of the Homeopathic Hospital, Boston, and chosen because of their special training in contagious diseases; four were graduates of the Children's Hospital; and the other two were nurses recommended by the Red Cross to fill eleventh hour vacancies, caused by a Massachusetts General Hospital nurse who got married, and one who developed whooping-cough. Among the Massachusetts General Hospital nurses were some who had specialized in eye and ear work, others who had had mental nursing, and some who were experts in anæsthesia, orthopedics, operating, medical, and public health work. All had received good general training.

When the time came to leave Boston captains were chosen from among the nurses to be responsible for squads of eight nurses each, and it was a moment of great relief when all were safely on the train.

When we arrived in New York we reported to the Red Cross, where we received instructions about outfit; after which we reported to Miss Mury, Chief Nurse at Ellis Island. Here began our experiences in real community living and in the exigencies of army paper work.

At this time the Chief Nurse of Base Hospital No. 6 had occasion to appreciate an accomplishment of some of her nurses hitherto unacknowledged, namely, typewriting. If some of them had not come to the rescue at this critical time, the expedition would have been a failure at the very beginning. We lived on the Island from June 30 to July 10, getting equipped, and making the acquaintance of expense accounts and a certain amount of army *régime*. Ours was the ninth unit to be equipped. Great excitement prevailed July 9, when we were told to hand in our passes and be ready for a nine o'clock boat the next morning.

On the tenth we were joined by the rest of our unit and comfortably settled in the good *S. S. Aurania*, in which we sailed out of the harbor July 11, at 4.30 P.M., for "somewhere in France."

Since comparing notes with several other units, it would seem that we enjoyed an exceptionally pleasant passage, with more wholesome enjoyment and less discomfort and anxiety than fell to most of the others. Choir practice, French classes, practical nursing demonstrations, boat drills, and entertainments shared in common with other members of the unit, passed the time very profitably and agreeably until landing in Liverpool.

If any member of the nursing staff felt fear while passing through the danger zone, she concealed the fact perfectly. Considering that everybody hoped to get a glimpse of London *en route* for France, our disappointment was borne nobly.

Our first real feeling of what war had done to England was experienced on our train ride, during which we saw absolutely no able-bodied men. The sight of so many old women and children working in the fields and gardens, who waved and cheered our train as we passed, made lumps rise in our throats and the landscape a blur.

We landed in Havre, where we had a short breathing spell, and on the 28th of July arrived in Bordeaux, after an intensely uncomfortable trip. Not knowing we should be on the train over night, we let our blanket-roles go into the baggage car, so we were very cold at night; and the day, which was said to be the hottest for several years, was suffocating.

We arrived at noon and were met by ambulances, which took us to Talence. I have heard nurses who have been

close to the front under shell fire say, that never will any day stand out as did the first day at what became our Base Hospital No. 6. As we drove into the grounds, large numbers of Senegalese, Chinese, and French soldiers who were strolling about the grounds, surrounded us to watch with curious eyes the new "Americaines." We were immediately installed in the wards from which sixty-four of these patients had just been evacuated. As the hospital had only been notified of our expected arrival at 9 A.M., it is no reflection on them that the beds were not made and no lunch ready.

Many of us were too tired to be over-curious about our accommodations, and these just tumbled on to the mattresses for a needed nap. Another small squad of energetics headed by Dorothy Tarbox brushed and aired their mattresses, washed the beds, and later retired to more reposeful slumber than did those who were too confiding or listless to argue with strange bed-fellows.

Those first six months of settling, who will ever forget them—dirt and smells and rats; scarcity of water and light at first, later cold and dampness going to the marrow; chilblains, intestinal upsets, colds, and coughs. That is one side of the picture that makes the background for lovely fall days, walks, picnics, baseball, concerts, lovely services out of doors, blackberry parties, and French pastries in Bordeaux *pâtisseries*.

The 6th of December, 1917, was a red-letter day, for on that day the last stoves were installed in the wards and nurses' quarters.

Our first surgical team went to Soissons September 26. Groups of nurses were being ordered to Paris and Ris-Orangis to assist at the surgical dressings stations, to supply in hospitals, and to observe war nursing methods. In September patients began to arrive from the camps, and by Christmas we had quite a hospital. The character of the work was much like that in civil hospitals, except that there was a good deal of contagious disease.

Probably the hardest thing for the nurses during this period, aside from lack of warmth, hot water, and cleaning-cloths, was the necessity of making patients do the housework. The patients themselves had to become accustomed to the requirements, and for a time the result left something to be desired.

October 29, Louise Lovejoy was detached for Public Health Work in Paris with Major Cabot; later, Margaret

G. Reilly, Bernadette Cormier, Gertrude Eastman, Leonor Field, and Maude Barton joined them. March 1 four of the six returned to the Base.

March 10, 1918, we received our first reinforcements, consisting of twenty-one nurses of Unit O. from Charlotte, N. C., and very welcome they were, too, for now our hospital was a busy place. Château de Breuil was taken over at this time for extra nurses' living quarters.

March 24, May Coulson arrived as a transfer from the New York Presbyterian Hospital Unit.

April 15 a nurse was detached permanently from the original unit, and on May 6, 1918, the unit lost by death one of its most talented and beloved nurses, Lucy N. Fletcher, who succumbed after a long, painful, but brave struggle with meningitis.

June 11 another casual was attached, transferred from another base, and June 17, fifteen nurses from Base No. 13 (Chicago Presbyterian Hospital) were assigned to us, bringing our nursing staff up to one hundred. Several small groups of the original staff of nurses had been detached for surgical teams, evacuation hospitals, and hospital trains.

June 22, 189 transients arrived, personnel of Bases No. 22 (Milwaukee) and No. 114 (an orthopedic unit). Among them were two of our young Massachusetts General Hospital graduates, who remained with us several weeks. Several groups were soon detached to other stations, but June 8 brought us twenty more casuals.

Our very heavy work began in July, and when another nurse from Base No. 18 (Johns Hopkins Hospital) was added, although our staff then numbered 182, there was plenty of work for all, and more than could easily be carried. In August the Assistant Chief Nurse, Miss Mary F. Emery, was obliged to go home on account of health, to the regret of all. From that time until November 11, when the armistice was signed, our number of patients increased and nurses decreased, for groups were detached for other stations.

September 26 found us with a nursing staff of 109. Up until then our number of sick nurses ranged from two to five at a time; during October there were from 10 to 14 off duty on account of sickness, so that we had about 97 available nurses for our patients, who were now numbered by thousands. For several weeks many of the nurses kept on duty who should

have been in bed, and all were suffering from overwork and nerve strain.

November 11, the day the armistice was signed, we had 4,319 patients in the hospital, hundreds of them badly wounded, and hundreds critically ill with influenza, pneumonia, etc. There were 99 nurses on duty that day. We had one French *infirmière* and six maids to assist.

The orderlies were as scarce as the nurses, and most of them were untrained.

Our best help came from convalescent patients, who were often intelligent about helping, and usually kind and willing.

If at this time we had not been tormented about keeping Class B or C patients on the ward to help, the strain would have been much lighter.

October 21 five nurses from Camp Hospital No. 38 were attached, and December 7 fifteen more nurses were added to our number. From this date until January 14, when Base Hospital No. 6 turned over the hospital to Base No. 208, the number of patients decreased, and the staff of nurses increased, fortunately for the patients and the health of the nurses.

Gradually our detached nurses came back, but all did not return to the United States with us, for Rosa Shayeb elected to go with the Red Cross Commission to Palestine, and Charlotte Pitman, Alice Buchanan, and Helen B. Haines joined a commission for Italy. Our dietitian transferred to the Y. M. C. A. for canteen work, and two of the secretaries were detached. Fifty-four of the original sixty-four nurses, and three secretaries, returned together after their year and a half of service in the A. E. F. in France.

The outstanding features of the nurses' life and work during this period seem to be the following, as observed by the Chief Nurse:

A universal enjoyment of actual bedside nursing in addition to executive responsibilities. Although thirty-eight of the sixty-four had held executive positions before joining the unit, they were always glad to take subordinate positions, where they could work directly with the patients. As all nurses in time had to take charge of wards and nurse the patients at the same time, it was equally pleasing to find that those nurses who had not held executive positions in civil life almost without exception assumed responsibility very well.



FRONT OF THE LYCÉE

U. S. Official



PETIT LYCÉE DE TALENCE



U. S. Official

CENTRAL HEATING PLANT



FRENCH BARRACKS SHOWING IN THE BACKGROUND CORRIDOR OF THE NEW CONSTRUCTION ON THE COLIN ESTATE

There was never a time when the nursing department suffered from too many executives, a complaint of other units.

There seemed never a time when the nurses were too tired or too busy to do extra kindnesses for the patients. The hours off duty that were spent making candy, cakes, pies, and ice-cream, and the personal money spent for eggs, milk (evaporated), fruit, etc., for the sicker patients, when army supplies failed to materialize, could hardly be estimated.

Most gratifying of all was the spirit of motherliness which pervaded the atmosphere, and the respect which the nurses always commanded.

To sum up my impressions: The advantage of knowing one's personnel is tremendous, both from a professional and physical standpoint. Many valuable women who can work in an understanding and sympathetic environment, could never stand the strain in an uncongenial situation, but in this respect we were fortunate, as there was an unusual spirit of coöperation and congeniality among the nurses of our Base Hospital.

THE CHAPLAIN'S STORY

REV. HENRY K. SHERRILL

WAR reminiscences are misleading because memory retains the happy experiences and we forget the painful and monotonous. The old days in time become the good old days. That is how the ancient war "myth" comes to life again. Men who do not know, get the idea that war is glorious, thrilling, even "good fun." It is true that as Chaplain of Base Hospital No. 6, I received many valuable gifts, the opportunity of being of some little service in a time of great need, an experience of human nature which no length of days in a parish at home could have given me, friendships which I know will be life-long, and the memory of a common effort and service. If I dwell on these aspects of our life together, it is not to underestimate the horror of war. As I write in my quiet Brookline study, there is still with me the picture of those long rows of sufferers, over four thousand of them on Armistice Day. I can in imagination be again at the bedside of some boy who is "passing over" so far from home—I can take once more that familiar journey to the cemetery at Talence. Human nature can rise above any situation. We had many good times. Yet there is through the memory of it all, like a nightmare, the consciousness of the utter loss of war. If we bear testimony, as we should, to the heroism of our men at the front in France, we must also testify out of our experience in a hospital that, when war becomes necessary, then it is the tragedy of the Cross. Future generations of all nations must know what war is. Before I reminisce at all, I want that fact to be plain.

One day in July, 1916, I was called on the telephone and asked to be Chaplain of a base hospital. I had never heard of one before, but after a few days' consideration I went down to the Massachusetts General Hospital, signed the roll, and then forgot all about it for a year. In April, rumors began to fly thick and fast that the base hospitals were to be called out. The matter really seemed serious when we were summoned to learn how to take a revolver apart. Somehow I can't remember our learning how to put it together again. Then we were taught "to the rear march," began making preparations, and

we knew that a base hospital on paper was soon to be the real thing. The first time that we all met together, officers, nurses, and men, was at the Farewell Service at Trinity Church, June 3, 1917. It seems to me as I look back the most inspiring service I ever attended. Who of us will ever forget those Hymns, the Prayers, the words of Bishop Lawrence, and the great crowd filling the church and stretching out into Copley Square! That service started us right. Then we thought we were going each week and didn't. At first our friends wished us heartfelt "Good-byes," and then they said, "Haven't you gone yet?" I remember meeting a friend who said: "Oh dear, I thought you had gone. I have been praying for you for two weeks, thinking you were on the water." But finally the delays were over, and we sailed "quietly" down New York Harbor to the accompaniment of ferry-boat whistles. If only the Kaiser had been allowed to know, all might have been over then. On board we had two services on the two Sundays, Holy Communion at an early hour, and then a later service at eleven o'clock with Major Cabot leading a choir and the Purser reading the Lessons. We also had several entertainments to vary life-boat drill, and the watching for and talking about periscopes. From the time that we landed in Liverpool until we reached Talence we were either separated into groups or at least constantly on the move; so there is not much of general interest from my point of view to record.

With our arrival at Talence there commenced the real work of the hospital. The Chaplain was particularly interested in two sides of our life, the religious and the social.

During the eighteen months that I was in Talence we held two and many times three services a Sunday, Holy Communion at eight o'clock, a morning service at eleven, and after the Red Cross Hut was built, an evening service at seven o'clock. The French Roman Catholic Priest celebrated Mass in the chapel on the hospital grounds. He was one of the kindest and most genial of men, and I wish here to state my appreciation of all he did for us. Although we divided in one sense on Sunday mornings, yet in another sense we were united. There was always the most friendly religious feeling and co-operation between all members of the unit. Perhaps the best indication of this is that a union choir helped at both types of services. Our "Church" was everywhere. First we held service in a little grove on the hospital grounds, where a rustic

altar was built. Some of us will always remember those times when we met to praise God in a foreign land amid those beautiful surroundings. Then we worshipped on the long esplanade. Next we moved to one of the wards, then to one of the dining rooms, and finally to the Red Cross Hut. Rev. David Thompson, our Y. M. C. A. Secretary, was always a great support in these services, and gave many of the addresses on Sunday evenings. I do not believe I shall ever have such a congregation again, officers, nurses, men, and patients in dressing gowns, on crutches, in wheeled chairs. The congregation was literally made up of the lame, the halt, and sometimes, the blind.

The religious work of the Chaplain was not confined to Sundays, for the most important part was the visiting through the wards, especially the very sick. It was a real pastoral experience, a coming into contact with all sorts and conditions of men. The patients came from every part of the battle-front, from the service of supplies, or off transports just from home. They were representative of every corner of the United States: New Englanders, Southerners, Westerners. In asking the question, "What were you before you enlisted?" there might come the answer, a student, a plumber, a mechanic, a lawyer, a farmer, or anything else that a man might conceivably be. There were the negro stevedores, who if they were asked by an orderly, "Catholic or Protestant?" might reply, "Ahse a stevedore, Boss." There were men whose ancestors had lived in America for generations, and then there were those who had themselves been born in foreign lands. I recall in this connection going into a ward one night and hearing this conversation. One patient said to another, evidently an Italian, "Where were you born?" "None of your business," came the answer. "What's the matter? Are you ashamed you were born in Italy?" "No, but I'm tired of being called a Wop." "You should worry where you were born; I was born in Berlin." Both were suffering from wounds received in their allegiance to a common cause. Then of course there were in the hospital men of every religious faith as also of no faith. An American base hospital was not only a cross section of the American Expeditionary Force, but of the whole United States as well. Within those hospital walls were all the component parts which go to make American democracy. I have said that they were men of all sorts and conditions,

and yet they were all alike in this particular—all were in need, not only of medical attention, but also of friendship, and whether they knew it or not, of the strength and comfort which only God can give. It was my privilege to spend a part of each day for almost eighteen months in trying to be of some help to these men. With over 4,000 men in the hospital at one time, there was the constant realization of how much had not been accomplished, and of the times when the right word had not been said, or the helpful thing done. Yet there were so many real opportunities that no one could miss them all. Even though we were far from excitement and adventure, and there was great monotony, yet if I were to go through it all again, I should want to be chaplain of a base hospital, because there was so much to be done, a cheering word, some personal interest, a letter written home. During the eighteen months I prayed literally hundreds of prayers by the bedsides of our men, and only once was there lack of appreciation. It made me realize more than ever the old statement that "all men are incurably religious." Then there are the memories of the self-forgetfulness of many men, their utter consecration to a cause. I could write on indefinitely, but there must be some limit.

The social side of life in the unit was most important. Army life away from a front is apt to be monotonous anyway. Hospital life is particularly so, because of the strain of always being with the sick. So it was important that the unit should have amusement. Early in our days at Talence I was able to buy a moving picture machine, with funds given by parishioners of Trinity Church; a ward was fitted up as a Recreation Room, and an Enlisted Men's Club formed. We then established a Baseball League, with games on Sunday afternoons. One great difficulty with these games was to keep the curious French people from watching the game from *behind* the catcher. We had lectures, readings, and musicales on many evenings. Major Cabot did more in these ways for the unit than any one else, with his current events talks, his readings, his chorus, and his violin. Then later on when the Red Cross Hut was built, the Enlisted Men's Club had a room well fitted up for reading, writing, and meetings of their own. The officers and nurses held several dances, and the Y. M. C. A. arranged dances for the men. For the patients much was done. There were constant "movies" in the Red Cross Hut.

The Y. M. C. A. and the Red Cross sent many entertainers and lecturers. The members of the unit gave several entertainments and plays. Notable "good times" were arranged for the two Christmases we were there. During the summer of 1918, neighboring regiments were generous in lending us their bands for periods of a week at a time. We were most fortunate in our Red Cross representatives, Captains Mygatt and Rommel; Mr. Thompson I have already mentioned. The Red Cross, Y. M. C. A., Knights of Columbus, and the Salvation Army all helped greatly, and we were constantly remembered by our Boston friends. The nurses were of invaluable assistance along these lines. I do not believe that one quarter enough has been said of their service abroad. I am not writing now of their efficient medical work, but of what they did to cheer their patients, in the decorating of the wards for holiday time, writing home, making ice-cream, and many other deeds of kindness and cheer, always in addition to their regular work.

When I was asked to write this little article, I was told to write of what interested me. So I am going to make small mention of some of the other duties of the Chaplain of Base Hospital No. 6, such as censor and postmaster. Those duties were as painful to me as to the other members of the unit. They make me feel more than ever that Sherman knew what he was talking about. Inspections? No, I will refrain!

In January, 1919, I was ordered to leave the Base Hospital and report at the Headquarters of the First Army at Bar-sur-Aube. It was indeed with a heavy heart that I left the friends and associations of a year and a half. At Bar-sur-Aube, with two other chaplains, I was assistant to Rev. Herbert Shipman, Senior Chaplain of the First Army. I had the broadening experience of living under the same roof with a Jewish Rabbi and a Roman Catholic Priest. Our task was to cover the units too small to have chaplains of their own. We would motor from place to place, holding services. I added one more to my list of "churches," holding service for a Massachusetts Signal Battalion in an old mill. While with the First Army I had an interesting trip with Chaplain Shipman through the Argonne, and a "leave" during which I visited the old British front and Belgium. In March I spent the two longest weeks of my life at St. Aignan and Brest, finally sailing March 15 on the battleship *Montana*. In April

the unit came together at a Welcome Home Service in Trinity. As I look back, the days that mean the most to me are those early in our stay in France, when our original unit was intact. Major Washburn did everything possible to support the Chaplain, and I do not believe there was a better group of officers, nurses, or men anywhere. I am very grateful that the telephone rang in 1916, and that I was asked to be Chaplain of Base Hospital No. 6.

THE MEDICAL SERVICE

RICHARD C. CABOT

OUR work fell into three periods,—(1) waiting for work and organizing our hospital plant, July, 1917, to January, 1918; (2) running full blast with a competent and not overworked staff, January, 1918, to July, 1918; (3) the terrible rush of work with relatively few of our original staff left, and constant danger of bad mistakes, July, 1918, to November 11, 1918.

During the first period we repined a good deal and thought we had bad luck to be so far from the front and to have so little to do. Looking back now we can see that this long period of waiting, when combined with the energy of our commanding officer, made it possible to develop a hospital plant and organization capable of maintaining the highest medical standards. During this period our x-ray got running and our laboratories settled down to work; we got used to our quarters and to the new type of coöperation with each other and with the nurses and enlisted men,—something a good deal unlike our hospital work at home.

When the patients finally came to us, and we were properly organized and ready to receive them, there came a period during which I believe we furnished as good a quality of medical service as I have ever seen. We were there on the job all day, and could have any amount of consultations at meals and at other times. The subordinates doing the sort of work which at home is done by house officers, were far superior in capability to any house officers to be had in peace times, since they were all trained and picked physicians. Most of the men who came to us from Unit O merged easily with the rest of us, so that there was no break in standards. During a good deal of this period, Maj. W. L. Moss, Medical Chief of Service from November, 1917, to March, 1918, gave an amount and kind of devotion to individual patients, and to the supervision of other men's work, that I have rarely seen equalled and never surpassed. During this period one could honestly say that army work in a foreign country exceeded in quality the best that our hospitals could offer to the general public at home.

When our hospital capacity amounted to 3,000, and finally to more than 4,000 patients, the quality of our work necessarily fell off. We were too much rushed and our personnel had suffered too much,—both in quality and relatively in numbers,—to make it possible for us to maintain the high standard of the previous months. I do not know of any serious mistakes or disasters during that period, but I was in constant fear that such would occur, and in the days leading up to the armistice, it seemed as if the breaking point of fatigue and overwork was almost reached.

Among the special features of our medical work to which I look back with satisfaction were the care of the cases of meningitis, given by Lieutenant Binger, of the cardiac neuroses, by Capt. Paul D. White, and of the acute exanthemata and skin diseases by Major Oliver. The latter's transformation into an internist and general medical man, and his astonishing ability in this position, was surprising to all of us, but his special skill in the field of the diseases above referred to was of still greater assistance to our unit.

Capt. Paul D. White's organization of the baseball team, made up of cardiac patients of the neurotic group, supposedly unable to work or breathe without great difficulty, and his testing out of these same patients in exercises performed while wearing the gas mask, were interesting and original. During the influenza epidemic we all of us learned a good deal about that disease as well as about pneumonia, although in the end we came out knowing as little about its bacteriology and cause as in the beginning.

Taking the experience as a whole, I found it a very profitable one from the point of view of pure medicine. I learned more medicine than in any recent two-year period of my medical life. Like the rest of the medical staff, I felt that I was very fortunate in being so placed that I could use to the best advantage the medical training accumulated in this country, and do a man's work towards helping on the war. In this we were all, as I have said, unusually fortunate. In other units many an able physician found his service in France largely a period of waste and disappointment.

EXPERIENCES WITH FOUR GROUPS OF MEDICAL PATIENTS

PAUL D. WHITE

FROM the winter of 1917-18 until after the armistice, the medical service was frequently swamped with all kinds of infectious diseases, such as pneumonia, influenza, mumps, scarlet fever, measles, diphtheria, and meningitis, with which all the officers on the medical side had to cope sooner or later. There were, however, interspersed among all these, four groups of patients in the study and care of which I was able to take especial interest. These groups were composed of (1) cardiac, (2) effort syndrome, (3) rheumatic fever, and (4) gassed cases.

(1) *Cardiac.* The soldiers with heart disease largely appeared early in the history of the hospital. There were never very many, but among the first American troops in France there were not a few chronic cardiac cases. Later, when the new army began to come over there were extremely few chronic cardiacs; the special examining boards in the camps at home had weeded them out. A few acute cases did develop later, after rheumatic or scarlet fever, but the organic heart problem of the A. E. F., after the turn of the year 1918, was almost nil. It was then, however, that the functional heart disturbances—the cardiac neuroses, effort syndrome—began to appear, but never to the extent that they did in the British Expeditionary Force. Of 24,254 cases at Base Hospital No. 6, from beginning to end, 116 were diagnosed as chronic endocarditis, and 46 as acute endocarditis, a total of 162. Of the former, 13 died, and of the latter, 12. There were 40 cases of acute pericarditis with 29 deaths. Nine cases were diagnosed myocarditis, without doubt too small a number, but the general inelasticity of the army manual prevented more satisfactory nomenclature. There were four cases of aortic aneurysm with one death.

Of 48 cases with rheumatic heart disease which I saw from March to June, 1918, 35 showed involvement of the mitral valve only, 11 showed involvement of both mitral and aortic valves, one involvement of the aortic valve alone, and one involvement of the tricuspid valve. Three cases showed

transient acute partial heart block. Eight had acute pericarditis.

The discovery of a number of arrhythmias in the early winter of 1917-18 stimulated me to procure a Jaquet polygraph in Paris. With this I was able to analyze several interesting irregularities of the heart by taking records of the pulse on strips of smoked paper. Three cases showed absolute irregularity (auricular fibrillation). Two cases showed paroxysms of very rapid but regular pulse. Four cases showed high grade heart block with very slow pulse (35^+), one of which was temporarily complete but entirely relieved by anti-syphilitic treatment.

In the winter and early spring of 1918, a few soldiers with well-marked aortic regurgitation entered the hospital, usually for some incidental trouble. They had no or very few cardiac symptoms, and had been engaged in hard work, in two or three cases combat duty, for months. Because of the severity of the condition, these patients were classified by the Disability Board for light duty in the Service of Supplies, or sent back to the U. S. A. One soldier with congenital pulmonary stenosis was seen. Of a group of 23 cases of acute pericarditis observed by me between January and June, 1918, 15 were due to pneumonia, 7 to rheumatism, and 1 followed trauma. Of one series of autopsied cases of epidemic pneumonia, 11 showed acute pericarditis, usually with very extensive fibrinous exudate.

(2) *Effort Syndrome*. Among the American soldiers who were patients at Base Hospital No. 6 effort syndrome occurred, but not to marked degree. The diagnosis was made primarily in 284 cases, but there were numerous other instances of complicating gassing and acute infectious disease not recorded as effort syndrome. Most of the cases were quite mild. The condition consists of a functional disturbance of the nervous system with cardiac symptoms, usually a fatigue neurosis—the so-called neurasthenia with irritable heart. The patients were young soldiers, most of whom had had in civil life similar symptoms on exertion or excitement, but usually less in degree. Dyspnoea, palpitation, precordial pain and tenderness, nervousness often with tremor, faintness and giddiness on slight to moderate exertion or excitement were the symptoms complained of by the patients who on examination showed hearts that were normal, except for tachy-

cardia. Change of scene and avoidance of extreme physical and emotional strain got rid of most of the symptoms, but in severe cases the Disability Board classified the soldiers for permanent light duty in the Service of Supplies, or for return home to the United States. Many of these effort syndrome cases were trained and tested with the gassed cases in the convalescent wards, which I shall presently describe.

The study of the irritable hearts gave me the opportunity to make a brief investigation of blood pressure. The marked variation in the course of the day in some cases, mainly in the systolic figure, was of interest. One patient with a pressure of 125 mm. in the morning before getting up had a pressure of 160 at bedtime; another with a pressure of 145 in the morning increased to 175 in the evening, and to 250 after a short, rapid walk; and so it went. The opportunity arose for comparing the auscultatory and the oscillometric methods of blood pressure determination through the use of the Pachon oscillometer (Pachon was a professor in the University of Bordeaux); in five-sixths of the cases the systolic reading was higher, and in two-thirds the diastolic reading lower by the oscillometric method, which thus gave a larger pulse pressure. C. R. Tobie, a patient, and later an orderly in the hospital, gave me great assistance in this study.

(3) *Rheumatic Fever*. In the spring of 1918 a group of seventy-three soldiers with rheumatic fever were assigned to my wards. According to expectations, a large number of them had large diseased tonsils, or a history of frequent tonsillitis in the past. Half had had previous attacks of rheumatism; half showed evidence of endocarditis. Nearly all were quickly relieved by large doses of aspirin or sodium salicylate; oil of wintergreen externally and phenacetin failed to have more than slight effect. I was convinced of the practically specific action of the salicylates internally in acute rheumatic fever.¹

(4) *Gassed Cases*. In the late spring of 1918 more and more gassed soldiers came into the hospital, and as a result an important problem shortly arose as to when they would be fit for duty again. Altogether, of the 24,254 cases admitted to Base Hospital No. 6, the diagnosis of gassing was made in 1,966. Should one wait before sending them back to the

¹ A detailed report of the study of this group of seventy-three rheumatic fever patients has been published (*American Journal of Medical Sciences*, 1920, clix, 702).

front until their skin had entirely recovered from the burns and their eyes from photophobia? Should one wait until the cough had entirely disappeared? Or until there was no longer marked dyspnoea or tachycardia on moderate exertion? Maj. Richard C. Cabot asked me to take up this problem and devise a method of training and testing these men. From June until after the armistice I was busily engaged in this work, more and more gassed cases entering the hospital, and more and more convalescents of all kinds being referred to me for training and testing. Satisfactory methods were devised during the summer. With the invaluable assistance of Sgt. John O. Moose, the large convalescent Tent Ward 100, and later Ward 90, were a great success. They formed a kind of convalescent camp in the heart of the base hospital. At the time when the general hospital was running its largest, just before the armistice, with nearly 4,500 patients, I had under my charge at one time over 500 cases. This was far too many for one medical officer, of course, especially when it was necessary, as it was on one occasion, to discharge 150 cases and admit 100 new ones on the same day. The paper work alone took a great deal of valuable time—that of one day's discharges and admissions and miscellaneous duties alone requiring my signature about 500 times.

In the study of the gassed cases the first problem was to establish a satisfactory organization and method of training or other aid to convalescence. The second problem was to determine the most satisfactory test of physical fitness under the circumstances. On admission of the patient to the convalescent wards, he was examined and classified 1, 2, or 3 (*i.e.*, no exercise, light exercise, moderate exercise), according to his general appearance, physical findings, and the length of time he could hold his breath. The breath-holding test proved a useful adjunct, inasmuch as it expressed not only the pulmonary irritability, but more often the stability of the nervous system. An important feature of fitness is the condition of the nervous system; if a patient with normal lungs could hold his breath only ten seconds he was nervously bad, and therefore unfit. A normal man should be able to hold his breath more than half a minute, usually much more nearly a whole minute. Malingering was rare, and with a little experience easily detected by careful observation of the individual. Encouragement was always given during the test, and helped to give

more uniform results. Taken with other data, the breath-holding test was useful for preliminary classification. Once a man was classified, he was taken in hand by the sergeant. Light setting-up drill in the morning was followed by light duty (C) in the hospital; moderate setting-up drill was followed by B duty; when a patient was ready for A or full duty, he was discharged back to his organization. The setting-up exercises were conducted by the sergeant, and I watched the patients closely during them. In this way I graduated the patients from one group to the next, and selected those who seemed ready for the final tests for full duty. The exercises were a combination of the American setting-up drill and of the British, described by Lewis in his work with the soldier's heart. During the summer we carried on baseball games as additional training and tests. We staged some interesting contests between the wards usually twice a week, sometimes double-headers, and used as many substitutes as possible, so that we might "get a line on" as many of the men as possible. I sat on the side lines keeping score, and thus followed the activity and capacity of each player closely. These games added much zest and interest to convalescence and proved very useful as extra tests. Occasionally professional or other expert ball players would startle the camp by their appearance in the ranks of the gassed victims; they, of course, added much interest to the contests. The hospital duty A, B, and C was made up of all manner of chores, from digging graves to folding sponges in the operating building. At times the supply of workmen was much greater than the demand, in spite of all the work to be done about the huge hospital enclosure and on the farm. When there were over four thousand patients in the hospital, there were more than a thousand assigned to duty on the grounds; for several hundred of these it was hard to assign any jobs at all.

Testing the patients for duty proved very interesting. When I began the investigation, I tried out various methods on several different groups—on five normal soldiers, five gassed, five with the "irritable heart," and five with "shell shock." Those I tried out were five respiratory tests and three exercise tests. The respiratory were (1) the length of time the breath could be held (normal about three-quarters to one minute); (2) the vital capacity, *i.e.*, the amount of air that can be expelled from the chest after a full inspiration

(normal, 4,000 to 5,000 c.c.); (3) the height to which a mercury column could be blown (normal average = 15 cm.); (4) the length of time a mercury column could be maintained at a given height by the breath; and (5) the amount of liquid (paraffin oil) that could be blown over from one bottle into another (normal average = 150 c.c.). The exercise tests were (1) the effect on the pulse, blood pressure, and respiration of climbing two flights of stairs in one minute of time; (2) the effect on the general condition, pulse rate, and respiration of a slow run of 100 meters with the gas mask on; and (3) the effect of a 5 kilometer march.¹

An interesting result of this brief study was the finding that those showing by far the greatest reduction in all the tests were the "shell shock" group, with normal hearts and lungs. These men, for example, might be able to hold their breath only five or ten seconds and yield only one or two liters vital capacity.

Of all these tests, none proved all-sufficient. However, after several weeks we settled down to the breath-holding test as an aid in the original classification of the patients, and to the 100 meter run with the gas mask on as the most satisfactory final test of physical fitness. Daily we staged the run on one of the board walks; sometimes as many as thirty or forty were tested in an afternoon. A few weeks before the armistice we gave the soldier on discharge a printed card to fill out and return to us, telling of his condition two weeks after return to duty. Replies from this inquiry indicated that our methods were fairly satisfactory.

The exercises and tests were used not only for gassed cases, but also later for all kinds of convalescents, even those with chest wounds. If, after several weeks of training, tests showed the individual incapable of active duty, he was classified for light duty, or sent back to the United States by the Disability Board.

¹ A detailed report of our observations on these tests of physical fitness was published in the *American Journal of Medical Sciences* in June, 1920, clix, 866.

THE LABORATORY

ROGER KINNICUTT

THE laboratory of Base Hospital No. 6, A. E. F., began to function, in a primitive way, about the first of September, 1917. Captains W. L. Moss and Roger Kinnicutt were the officers in charge, but Captain Moss, because of his versatility, was used in almost every position except in the laboratory. The original laboratory was in one of the medium-sized rooms in the old school building. This room was converted into a comfortable, practical laboratory, according to plans drawn up by Captains Moss and Kinnicutt, and with the equipment brought over by the unit from the United States, together with other equipment of English and French make obtained from the Director of Laboratories, A. E. F., Colonel Siler, afforded the means of doing all the required routine, and many of the special laboratory examinations.

The hospital laboratory for some time was the only fully equipped laboratory in Base Section No. 2, and so naturally soon became, to all intents and purposes, the laboratory for that section, and until a separate one was established by the water department of the A. E. F., all the bacteriological examinations of water from the wells and various water supplies used by the United States troops for drinking purposes were done at the Base Hospital. Specimens of water from Lyster bags in use in many of the outlying camps; water that had been treated with hyperchlorite, were sent in for examination and were found, in many instances, to contain large numbers of colon bacilli. This led to an investigation of the chlorine content of the hyperchlorite issued to the army, and experiments with Lyster bags filled with uncontaminated water, sown with cultures of *B. coli*, and treated with hyperchlorite. It was found that different tubes of the salt from the same lots varied greatly in the amount of salt contained, many being as much as fifty per cent short in weight, and different samples of the salt varied greatly in the chlorine content. Bacteriologically it was found that in many instances Lyster bags of water, artificially contaminated with *B. coli*, were not sterilized by the hyperchlorite issued to the



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THE LARGE KITCHEN AND MESS HALLS BUILT BY THE 18TH ENGINEERS



INTERIOR OF THE GREAT KITCHEN

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troops when following the directions as given with it. This work was first done by Captain Kinnicutt, and later continued by the special water department.

In the fall of 1917, there was a certain amount of diphtheria among the troops around Bordeaux, which involved the laboratory in wholesale culturing for diphtheria carriers. Captain Moss eventually convinced those in authority that this was a useless procedure and a waste of time and material, much to the relief of the laboratory staff. Also in the fall of 1917, there were a number of cases of epidemic cerebrospinal meningitis admitted to the hospital which also required wholesale culturing for carriers. The impracticability of this method for controlling the spread of the disease was also eventually recognized and allowed the laboratory time for other more important work. The first few cases of meningitis admitted to the hospital reacted quickly and favorably to the administration of the Massachusetts Department of Health anti-meningococcus serum brought over by the unit, but when this serum was exhausted many of the cases treated with a commercial serum, issued by the Medical Department of the army, did not react favorably, and several died. An investigation of the new serum was undertaken by Captain Kinnicutt, and, by the use of agglutination reactions as a test, was found to be practically inert against the type of meningococcus which was found in a majority of the cases. Later it was learned that the horses, from which this serum was obtained, had not been injected with this particular group of meningococcus, the type B of the French classification. Other lots of serum were obtained from the French and British and tested in the same way. Some of them were good, by the laboratory tests as well as clinically, and some were apparently inert. From the results obtained in this work it became routine in the laboratory, if a patient with meningitis did not respond immediately to treatment, to test the meningococcus from the patient's spinal fluid against the particular lot of serum with which he was being treated.

In March, 1918, the laboratory of Base Hospital No. 6, as such, theoretically ceased to exist, being officially made the Base Laboratory for Base Section No. 2. Captains Moss and Kinnicutt were relieved from duty at Base Hospital No. 6 and placed directly under the command of the Base Surgeon, Base Section No. 2. Captain Moss was made Director of

Laboratories and Epidemiologist for Base Section No. 2, and Captain Kinnicutt officer in charge of the Base Laboratory. Practically the character of the original laboratory did not change, except that it was greatly enlarged, and the personnel, both commissioned and enlisted, was increased. The laboratory still did all the required work for the rapidly growing hospital as well as for those parts of the Base Section where no branch laboratories had been established. The character of the work done was approximately the same, except that it also became the distributing center for all therapeutic and prophylactic sera, vaccines, etc., and laboratory equipment for the small outlying laboratories which were eventually established.

During the summer of 1918, there were many bacteriological examinations of dysentery stools done, as there were many cases of dysentery among the troops in the lumber camps in the Landes district to the south of Bordeaux, and of course in the fall and winter of 1918 the influenza epidemic kept everybody busy.

In October, 1918, Captain Kinnicutt and First Lieutenant Binger, who, although attached to the medical service of the hospital, had been doing much valuable work in the laboratory, were sent to the camp hospital attached to one of the big artillery camps to study influenza pneumonia bacteriologically. The work and some of the results obtained were interesting, but they merely showed that the pneumonia secondary to influenza was probably due to different types of bacteria, even the rare group C meningococcus.

During the winter of 1918-19, one important work of the laboratory was the examination of cultures from wounds being prepared for secondary suture. Because of the number of cultures to be examined, at times over one hundred a day, the results obtained were of no particular value from a scientific standpoint. No attempt was made to classify, except roughly, the different bacteria encountered, but a quick, apparently clinically satisfactory, method for deciding whether or not wounds should be closed was worked out.

At the beginning of the year 1919, the original unit, Base Hospital No. 6, was relieved from duty, and shortly after Majors Moss and Kinnicutt were retransferred to the Base Hospital, severing their connection with the Base Laboratory. At this time, besides the original small laboratory, there was

a large general laboratory for Wassermann reactions, stool examinations, dark field work, etc.; a small laboratory for water analysis; and a medium-sized room fitted up as a kitchen for media making, adjoining which was a small room for storing extra equipment, sera, etc. There was also one other room being fitted up as a pathological laboratory, which, because of the ending of the war, was never completed.

THE X-RAY DEPARTMENT

ADELBERT S. MERRILL

WHEN the organization from the Massachusetts General Hospital, which was to be known as Base Hospital No. 6, was formed, it included in its personnel a roentgenologist of the first magnitude, a man whose ability and experience placed him on a plane with the best professional talent in the unit.

Unfortunately, his ability being in greater demand in other fields, he was detached from the unit and in his place was accepted another man, a pupil of his, who endeavored to fill his place as best he could.

From the beginning of the organization until the active participation of American troops in the war, the X-Ray Department had little history as a department.

The personnel consisted of one commissioned officer, a sergeant, and a corporal. The latter was detached before actual work began, and was sent with a surgical team to the Italian front. Later, he was badly missed in the department. This left us with but one man as assistant to the roentgenologist. He did the work of two or three conscientiously and uncomplainingly. Later, after the subsidence of activity at the front had released a number of surgical officers, an assistant roentgenologist was assigned to our unit.

From the arrival of the unit at its destination in July, 1917, until well into the fall, the work consisted largely of remodeling and enlarging the French hospital. In this work the roentgenologist participated principally by submitting to the Commanding Officer plans for the X-Ray Department and revising them at his order.

The x-ray apparatus originally destined for our unit met with some mishap and was lost *en route*. Steps were immediately taken to replace it, but it was not until the last week in October that the first examination was made and the first plate taken. The first apparatus received was of an inferior type, doubtless on account of the urgency, and was always more or less of a handicap to good work. Later additions, a U. S. Army bedside transformer, and a small French portable

machine, greatly facilitated and added to the quality of the work.

In the work were encountered no radically new x-ray problems, although the proportions of different classes of work were naturally very different from those found in civil practice. In the beginning, much of the material came from the labor organizations and other departments of Service of Supply, and from the large camps in our section, and especially during the prevalence of influenza and pneumonia was largely medical. Much interesting work was done, and we regret that a scarcity of large size plates at that time greatly limited the number of permanent x-ray records of these cases. A little later, after our boys got busy at the front, a large proportion of the work was the localization of foreign bodies. Much invaluable assistance and advice was gratefully received from our French colleagues, among whom Colonel Bergonié, Captain DesPlats, and Lieutenant Wickam were especially kind.

The roentgenologist remembers with pleasure his association with the various officers in the medical and surgical departments of the hospital, and thanks them for their coöperation and courtesy, and their good-natured forbearance when the work went badly. They were a good crowd to work with.

The work of the X-Ray Department terminated with the advent of Base Hospital No. 208 which relieved the older unit, the new roentgenologist taking over the work late in December, 1918.

NEURO-PSYCHIATRIC WORK

GEORGE CLYMER

AS Neurologist of the unit, I was apparently considered at first rather in the light of a supernumerary, from the medical point of view, for before we were mobilized I was informed that I should probably be made mess officer, and was instructed to familiarize myself with his duties.

When the officers were mobilized, I was one of a few who remained at Fort Strong from the beginning, and spent two days trudging about the down-town streets of Boston, paying bills that had accumulated since the enlisted men went into camp.

My first difficulties were with the vouchers, two of which were lost at the last moment and at once balled up the accounts of the hospital fund.

At sea I had no special duties, but on arrival at Bordeaux they began again, and, as we took the hospital over from the French, consisted in no small part in getting the old kitchen readjusted to our new requirements. These months were among the hardest I had in the army; but in November, after the patients began to arrive, our master hospital sergeant was commissioned and appointed mess officer, and I was relieved.

I then went, for a short time, on the general medical service, but soon was ordered on a team for observation and instruction to British C. C. S. No. 3, near Bapaume. Here Tobey and I spent two weeks, alternating night and day duty, filling in where we could and attending especially to the walking wounded.

I was once called on, during this period, for a neurological opinion, which was given but not acted upon—autopsy later showing that my opinion had been correct.

We got back to Bordeaux the night before Christmas, 1917, and for the rest of that winter I was on the medical service, taking care chiefly of pneumonia, and seeing such neurological cases as were in the hospital.

Towards spring, as the hospital grew, and the pneumonia decreased, I began gathering up the nerve cases in one end of my large medical ward, with the idea of gradually converting it into a neurological service. Plans were also being drawn

up for a special building for psychotic cases. These plans were never fulfilled, as our change in commanding officers came at about that time.

Following this change, the office was reorganized, Leland became Adjutant, and I succeeded him as Company Commander, in addition to my other duties. Up to this time it had been considered that the duties of Company Commander constituted a full time job and, as a matter of fact, they took up so much time that my ward work was rather superficially done. Fortunately Lieut. P. C. Robertson, who had recently come to us as a casual officer, was a trained psychiatrist, and gradually took over the neuro-psychiatric work of the hospital.

The latter part of June a few of us went to Paris for the monthly Red Cross medical meeting, which this time was devoted largely to neurological subjects. There I met Col. Thomas L. Salmon, who told me something of his plans for developing a neuro-psychiatric service in Bordeaux, and said he was coming down within ten days to go over the situation. He never got there, but the end of July orders came sending me for a period of observation and instruction to French Ambulance 5-8, a neurological mobile hospital at Nubecourt, just back of Verdun. I was one of four neurologists from different base hospitals who were gathered there for instruction in French methods.

Unfortunately, the French had got an impression that the Germans were likely to come through in that region, and the hospital had been evacuated just before we got there so that our two weeks were spent in seeing only a few cases that straggled in, and in seeing something of the country. We also spent two days in Verdun. This was during the French occupancy before any American troops had moved in.

Colonel Salmon soon found that the trip was not turning out to be what he had hoped, and sent us, at the end of our two weeks, to Base Hospital No. 117—the only American hospital planned exclusively for functional neurological cases. There we reported for temporary duty on August 17.

This unit, organized in America for overseas work with neurological cases, landed in Liverpool on May 9, 1918, at that time consisting of twelve officers, one hundred and sixty-five enlisted men, and sixty-five nurses. At Savenay, where they arrived on June 11, they were split and a neurological center was formed as a part of Base Hospital No. 8, to which

at that time all psychiatric cases from the A. E. F. were supposed to be sent.

On June 16, 1918, the rest of the unit, consisting of six officers, ninety-six enlisted men, and twenty-four nurses, arrived at La Fauche and took over Camp Hospital No. 4, a group of barracks with a capacity of about three hundred beds. This hospital had, for a short time, been occupied by one or two officers with a few enlisted men who were sent there to take care of such neurological cases as arrived before the unit. It had been built early for the use of troops and was most primitive in its construction and arrangement. It was very soon evident that it was much too small, and in July and August, by the addition of tents in the rear of the barracks, the capacity was considerably increased. Later it was planned to have barracks to accommodate a thousand beds, and at the time of the armistice this was being put into effect, but was never quite completed.

Within half a mile of the hospital proper, there were some French barracks which were taken over for use as a convalescent camp for such patients as needed no further medical or psychiatric supervision, but who required a certain amount of training before being sent back to duty. This camp was under the immediate direction of Lieut. Harry K. Durkin, a recent graduate of the Massachusetts General Hospital, who was one of the most energetic and able of the officers at the hospital. It was proposed to increase the capacity of this camp to a thousand beds, also, and with the addition of tents, the whole hospital could probably have been enlarged to twenty-five hundred or three thousand beds.

The Commanding Officer at Base Hospital No. 117 was Lieut. Col. C. R. Bell, M. C., to whom we reported on arrival. Harry Durkin was the only man whom I knew there, and I was assigned to his ward as his assistant for instruction, though I had previously been his teacher in neurology at the medical school. Capt. Sidney I. Schwab, who was chief of service, took us to his quarters, on the evening of our arrival, and gave us the first of a series of very interesting talks on his ideas of the mechanism of the war neuroses. It was interesting to see how closely his conceptions followed the Freudian mechanisms in everything except their dependence upon the sex element.

Within a comparatively short time, as the hospital was growing fairly fast, I was given a ward of my own, consisting of a barrack of thirty-five beds, and two tents of twenty beds each, and here I settled down to what was probably my most satisfactory period in the army.

Our instructions from Captain Schwab were to spend as much time on each case as was necessary to get results, regardless of how many others were kept waiting. He felt that in this type of work it was not possible to rush through the routine of the ordinary hospital work. He left the entire responsibility of handling the patients to the individual ward physicians, but made daily rounds when he was ready to take up any problems that might be presented to him. In this way he developed a very good medical atmosphere and all the officers worked hard and conscientiously. The results, of course, varied according to the training, attitude, and personality of the individual man in charge, and as time went on, some of the original members of the staff were detached, either to be sent to other hospitals or to combat divisions. Work was increasing and more doctors were needed, so that before our two weeks were up our time was extended for an additional five or six weeks.

During this time, Colonel Salmon changed his plans for developing a neurological center in Bordeaux, and I was told that I was to be transferred to the staff of Base 117. These orders, however, were delayed, and on October 2 I started back to Base Hospital No. 6, just as the "Flu" epidemic was reaching its height in Bordeaux, and for the next three weeks I was back on the medical service trying to take care of four wards of "Flu" patients.

Finally my transfer orders came through and I went back to No. 117, reporting for duty on October 29, and again took up the service that I had dropped. Maj. Frederick W. Parsons had succeeded to the command of this hospital, during my temporary stay there, and Captain Schwab had become Major. On October 15, I was promoted to Captain.

I think it was Colonel Salmon's intention to have all the officers in the neuro-psychiatric section at least pass through, and spend some time at Base 117 in order to become familiar with the type of cases we were having, and the way in which they were being handled. While desirable from the point

of view of giving these men experience, it rather broke up the standard of work being done at the hospital, for, as the work increased, more responsibility had to be given to men who had had comparatively little training. In spite of this, I can remember now only two officers, having any special responsibility, who were conspicuously inefficient and whose work with the patients showed no insight and was of no value. On the whole, they took hold well, and were more or less deeply interested in the work that they were doing.

A special classification, devised by Major Schwab, for use in the hospital simply for the convenience of the medical officers, was as follows:

Psychasthenia	Psychoneurosis
Concussion Neurosis	(Not classified)
Hypochondriasis	Hysteria
Concussion Syndrome	Neurasthenia
Effort Syndrome	Exhaustion
Timorousness	Anxiety Neurosis
(State of anxiety)	Gas Neurosis
	Anticipation Neurosis

On admission, all patients were diagnosed psychoneurosis. The final diagnosis, according to the special hospital classification, was not made until they were boarded for discharge.

The disability board, together with the whole medical staff, sat every afternoon at one o'clock. Every patient prior to discharge was presented by his medical officer before the board, where his diagnosis was discussed by the staff and either accepted or corrected by the board. In this way there was what amounted to a general clinic every afternoon. We also had meetings once a week in the evening, at which subjects of special interest were brought up and discussed in more detail.

The diagnoses of cases varied from frank hysteria with motor and sensory paralyses, blindness, mutism, deafness, and tremors, to all phases of phobias, anxieties, and ordinary neurasthenic breakdowns. Many of them had never been in combat at all. Some showed typical anticipation neuroses, in which they had characteristic signs of what they had understood to be shell shock, merely as a result of their fear of what might happen to them. Others had breakdowns purely as a result of the strain of military life to which they were

unable to adapt themselves; others as a result of their tremendous responsibilities.

It was said that the anxiety states were characteristic of officers, and the hysterias, characteristic of the enlisted men. This, however, did not work out practically, as many privates and non-commissioned officers had profound anxiety states, and some of the officers, typical hysterias. The way in which the cases were handled was, as much as possible, similar to the way in which they would be handled at home. We tried in each case to get the confidence of the patient, and as far as possible, to learn what really was back of his breakdown.

One man, who had previously had a good record and was carrying a good deal of responsibility, went to pieces shortly after a visit to Paris. It took some time to work his case out, but eventually it developed that before going into the army, he had planned to go into the ministry. During his trip to Paris he succumbed to temptation which was not in keeping with his previous ambitions and standards of life. The worry which followed his experience was the cause of his "shell shock."

Many other men had worries about home. Some, because they knew there was sickness at home and they had no mail; others, because they got mail giving bad news, but could get no communications home. Some men, who had always been efficient in civil life, and had never given any indication of being emotionally unstable, went to pieces apparently, simply as a result of the hardship, exposure, and at times, hunger and thirst to which they were subjected. It is not fair to say that these men were cowards. Many of them performed deeds of conspicuous heroism for which they had been decorated.

It has been stated that when the armistice was signed, all these patients got well at once. I did not see this happen. I did not see any hysterias get well spontaneously at this time. The tension, in some of the anxiety cases, undoubtedly was lessened a good deal, and shortly after, some of the men, who would not have been fit for combat duty, asked to be returned to their organizations, as they had a pride in being sent home with them rather than as casuals. We tried as far as possible to encourage this, in order to get the men back to a self-respecting basis before they went home. In this we had rather an unfortunate experience, for a stop-order on transportation

of patients came through fairly soon, and for a number of weeks we were not allowed to evacuate any of them.

By this time a large proportion of men were cured, or at least, they became well enough to return to their organizations under non-combat conditions.

Of course, it must be realized that in an army gathered together as ours was, even with the attempt that was made at eliminating the nervously unfit, there was bound to be a certain proportion who never would have been of any value, either as combat material, or for any other position requiring responsibility.

After the armistice we began to get an influx of mental defectives who had been kept on while the press for men existed, but, when this pressure let up, their commanding officers were glad to take any excuse to get rid of them. In this way, the character of the patients in hospital after the armistice began to change, and with the addition of this element, for whom we could not expect to do anything, as they never had been any good, the general atmosphere of the hospital began to deteriorate. Officers, as well as patients, began to get restless, and when orders finally came for me to return to my own unit, for transfer to the United States, they were very welcome.

As a matter of interest, the following data and tables, which I obtained from the official record of Base Hospital No. 117 in the Surgeon General's office in Washington, are inserted.

From the time that the hospital opened, on June 16, 1918, until it was finally closed, on January 31, 1919, the total number of admissions was 3,268, of whom one hundred and sixty-two were admitted twice, and four three times. Of these, two hundred and ninety-five were ordinary illnesses developed at the post, not cases of psychoneurosis.

On October 31, 1918, which was close to the height of the activities of the hospital, the count showed six hundred and eighty-five enlisted men, sixty officers, one nurse, and one reconstruction aid, sick in hospital.

The staff at that time consisted of twenty-four officers, one dentist, one chaplain, thirty nurses, one hundred and eight enlisted men, and nine reconstruction aids.

By December 31, the number of patients had fallen to ninety-one. The staff on duty had hardly changed, except

that we had sixty nurses instead of thirty. The following table shows an analysis of the diagnoses and disposition of 2,590 of the total number of patients.

ANALYSIS OF DISPOSITION OF 2,590 CASES

	Total Admitted	Discharged				Transferred *
		Class A	B	C	D	
Hysteria	717	123	211	306	68	9
Concussion Neurosis	573	129	315	102	17	10
Neurasthenia	314	29	87	151	37	10
Hypochondriasis	97	6	11	59	21	0
Exhaustion	139	41	79	16	1	2
Concussion Syndrome	258	79	142	18	1	18
Anxiety Neurosis	174	18	79	70	5	2
Effort Syndrome	57	6	25	19	3	4
Gas Neurosis	51	13	24	11	3	0
Timorousness	52	12	9	25	3	3
Psychasthenia	40	5	6	20	8	1
Anticipation Neurosis	29	1	4	20	2	2
Not Classified	89	46	20	7	2	14
	2,590	508	1,012	824	171	75

$\underbrace{20\% \quad 39\%}_{59\%}$ 33% 6% 3%
 $\underbrace{\hspace{10em}}_{91\%}$

* On account of medical condition.

I got back to Bordeaux the early part of January, but just before sailing orders for the unit came through, new orders arrived, sending me to Savenay. There at Base Hospital No. 214 I spent about three weeks, working up a group of patients for transfer to the United States.

This hospital, under the command of Maj. Sanger Brown, was practically the neuro-psychiatric clearing house of the A. E. F., developed from the psychiatric department of Base Hospital No. 8, formed originally by that part of Base Hospital No. 117 which had been left at Savenay in June, 1918, and through it passed most of the nervous and mental patients that still remained in France. Maj. Arthur H. Ruggles, now head of Butler Hospital, Providence, was Chief of Service

during most of the time I was there, and proved a valiant leader.

Toward the end of February an order for a convoy of three hundred and fifty patients came, and I was sent with them, in company with my former commanding officer, now Lieut. Col. Frederick W. Parsons, and Lieut. Col. Charles W. Stone. We went to St. Nazaire on a hospital train, where we boarded the transport *Aeolus*, formerly a German liner.

After we got on board it looked as if our troubles had only just begun, for the ship's surgeon told us that they expected only twenty-five nervous and mental patients, as that was all the ship was supposed to take, and owing to the fact that they had recently had two unfortunate accidents with mental patients, the ship's captain was unwilling to take any more. In order to appease him we made up a schedule whereby each of us was to stand watch with the patients for four hours in every twelve, and we agreed to take full responsibility in order to prevent any accident which might reflect on the captain.

We were delayed in sailing on account of not having enough coal, and until we actually got away we did not know whether or not we were to be put off. We finally did get away and came home via the Azores, where we put in for three days to coal, eventually landing with all our patients, without accident, at Newport News on March 13, 1919.

We were held up there for three days by the red tape of getting our fifty medical corps men paid off, and then departed for Camp Dix, where we hoped to get our discharges. There our hopes disappeared, as we were told that neurologists were not being discharged.

Colonel Stone and I got a forty-eight hour pass and went to Washington, where he was told that he had too much rank to be of any more use in the army; but I was not so fortunate, and was sent for duty to U. S. A. General Hospital No. 10, Parker Hill, Boston.

Here I reported for duty on March 19, and for the next three months worked with the peripheral nerve injuries, on which Major Cotton was operating; finally getting my discharge when the hospital closed on June 19, 1919.

OPHTHALMOLOGICAL WORK

RALPH A. HATCH

FOR several months at the beginning of our service in France our Eye Department was the only one in our section of the country and covered a large territory.

The patients, like those coming to the other departments of the hospital, were from the engineering, forestry, and dock construction outfits which were preparing the way for the growing A. E. F.

Even from this large field the amount of work was not great. So the Eye Surgeon, in order that he might earn his pay, was given other duties and titles, including those of Post Exchange Officer, Physician to Nurses, Physician to French Employees, and the care of several medical wards, including eighty-five cases isolated for mumps during an epidemic.

We took on and continued throughout our service the care of the Canadian and British troops in the district, and bi-weekly visits were made to Factice, the headquarters of the Canadian Forestry Corps. A large percentage of the men in this work had been transferred to it because of eye defects.

In March, 1918, Captain Matheson, of Unit O, came to our department, but he was soon afterward sent to Camp Souge.

When Base Hospital No. 3 came into the section, their Eye Surgeon was detached much of the time, so bad cases were sent to us during his absence.

Later, as other base and camp hospitals gradually came into the section, they took over the work of their own localities, but we continued to look after the "Bordeaux sector" and numerous camps, including the American forestry camps at Dax and vicinity, to which visits were made as required.

In the summer of 1918 the influx of battle casualties began in earnest. With the hospital growing to 4,300 beds, a large out-patient clinic and the incidental duties of a military organization, the work soon reached a point where it could not be handled satisfactorily by one man.

An eye ward of fifty-five beds, for the worst cases, was

established. Ordinary gas cases, surgical and medical cases with eye complications were treated in their own wards.

The routine treatment of gassed eyes consisted of irrigation with sodium bicarbonate solution, followed by oil—liquid petrolatum or olive oil. This gave the most relief, the oil probably tending to protect the cornea. The later cases were given cold douches and encouraged to overcome the photophobia. Probably ten to twenty per cent showed corneal involvement, with various degrees of opacity. In some the opacity persisted as long as they were under observation.

One gas case was totally blinded. He probably received a splash from a shell close by. One eye was enucleated because of sloughing of the cornea; the vision of the other was reduced to imperfect light perception, because of dense corneal opacity and probable deeper lesions.

The wounded cases were, of course, of great variety. Some of them stand out in memory now, after more than a year. There were several through and through wounds of both orbits, with one eye gone and more or less damage to the other. Two had had both eyes enucleated at evacuation hospitals. In one a shell fragment, perhaps 4 x 8 mm., lying well back in the orbit, against the optic nerve, was removed and a normal appearing eye, with a little vision, preserved.

A lieutenant of the Dental Corps, wounded while doing battalion surgery, may well be mentioned, though not wholly an eye case. A bullet had entered the right mastoid region and emerged through the left orbit, taking the eye with it. A mastoid infection developed, and he had other wounds. He came serenely through these afflictions and in a few weeks was one of the liveliest men in the hospital. He went home with an artificial eye and a right facial paralysis, but otherwise in good health and wonderful spirits.

It is a matter of record that there were fewer than one hundred men totally blinded in the whole A. E. F. Of these, eight passed through our hands. These included the gas case and the two orbit cases above mentioned, and others with multiple penetrating injuries, detached retinae, etc.

There were at one time, in the ward, sixteen men with one or both eyes enucleated, and others came in as these were boarded or sent home.

Artificial eyes were received from time to time from the American base at Paris. It was always a great event when



THANKSGIVING DAY, 1917
Officers' Dinner in French Pavilion Ward, Talence



U. S. Official

ENLISTED MEN'S QUARTERS



THE BARRACKS BUILT BY THE FRENCH

a new squad was fitted out with them. The assortment was not all that could be desired. Sometimes an exchange of eyes after trial resulted in mutual satisfaction.

In the fall of 1918 an instructor for the blind was sent to us, who did excellent work in teaching and entertaining the men.

One might think that refraction would not be a large part of the eye work in an expeditionary force in war time, but this is far from the fact. In the rush of the draft many serious eye defects were overlooked. Also large numbers of men requiring glasses came over with one pair of rimless spectacles or a delicate *pince-nez*, perhaps from a prescription several years old. These soon got into trouble.

At first, prescription work had to be sent to local French opticians. This was most unsatisfactory. In July, 1918, an Optical Detachment arrived in France, set up a shop in Paris, and sent out eight "optical units" to different centers. One of these was assigned to us, and it was a great blessing. It consisted of two enlisted men, trained opticians, with a good assortment of lenses, a supply of excellent frames and tools for repairing.

In the busy time our own refraction cases reached 250 a month. Our optical unit also filled prescriptions from many other hospitals in the district. Their stock was soon depleted and, though the shop in Paris was running night and day, it could not be kept up.

After the armistice much of the time was spent in receiving patients for transportation home.

The first of February, Captain Lesser came to relieve the Eye Surgeon, who then began to pack his trunk for the United States.

EAR, NOSE, AND THROAT SERVICE

HAROLD G. TOBEY

THE ear, nose, and throat service of the hospital had a very varied career, as is true of the members of the other services. For some strange reason the service was suspected of being able to make itself understood in French, and therefore must interview the Mayor of Talence as to where gravel was to be obtained. This began the intimate acquaintance of the service with the word "*grave*," which was to stand it in good stead during long, monotonous days. The word "*grave*," with the suffix "*supérieur*," served to pass many happy hours. Thus was the monotony of the service broken by many odd jobs, such as admitting officer and detrainning officer, to say nothing of censoring letters.

The service soon established an out-patient department in the rear wing of the old Lycée building together with the eye department. It may be significant that this room was next to the morgue. The first ward beds were established on one side of old Ward 10 in the French annex. This served during the winter and into the spring, when the demand for more beds and readjustment of the hospital resulted in a move to Ward 20, which was just over the O. P. D.

Up to the time of the active participation of the American troops in the fighting, Base Hospital No. 6 was the only one in Base Section No. 2 which boasted special services. Therefore, we drew a large civil practice from the rapidly increasing number of troops which were being stationed in this area. The O. P. D. was growing rapidly, and this work consumed a large part of the morning. Ward work was also increasing, which, together with a growing number of consultations all over a widespread hospital, kept the service on the jump.

At about this time we were fortunate in having Miss Romani, a graduate of the Massachusetts Charitable Eye and Ear Infirmary, assigned to the service. Her faithful and very efficient work lightened the burden of the daily dressings. Miss Townsend, formerly head nurse in the throat department at the Massachusetts General Hospital, was also assigned to the service as operating room nurse, and gave all the anæsthetics with great skill. She deserves great credit, as

anæsthesia for nose and throat operating is an extremely specialized work.

Dare we confess that, as members of the Massachusetts General Hospital—the home of the discovery of ether—we used chloroform freely to induce anæsthesia? This was due to untold delays in obtaining orderlies to be present at the time of beginning anæsthesia, and the lack of nitrous oxide. Perhaps we were fortunate that in over two hundred anæsthesias induced in this way, there was not a single accident or any incident to cause us uneasiness.

In June of 1918, Lieut. Horace G. Tangeman was attached to the service and took over the O. P. D. Shortly after this the ward was transferred to the new building which had been completed, and we were finally settled in Ward 30 for the remainder of our stay.

During October, November, and December of 1918, the special work was largely turned over to Lieutenant Tangeman, and we took over three general surgical wards of ambulatory patients, at the same time maintaining a supervision of the special work. This situation was maintained until we were relieved early in January.

Large numbers of patients were cared for in the O. P. D. These were chiefly ordinary civil practice types of cases. Toward the end, a great many were sent from other services for minor ailments. The only unusual cases were those of gassed men who came for treatment of the larynx and trachea.

In the wards about seven hundred cases were treated. These, also, were largely the same types as are treated in civil practice. This was probably due to the fact that most of the wounds of the head were sent to the special hospitals which were established for that purpose near the front.

One radical and fifty simple mastoid operations were performed. In these fifty cases there were an unusual number of complications due to the advanced stages of the suppurative process upon admission. There were seven cases of septic meningitis, of which five died and two recovered. There were five cases of septic sinus thrombosis, all of which recovered. One of particular interest was that in which both lateral sinuses were incised and blocked, and one jugular was tied. There have been only four other such cases reported in the literature.

Three cases of peri-sinus abscesses occurred and two of

extra-dural abscess. In connection with this large number of complications of acute otitis media, it is of interest to note that of the numerous cases which occurred in the hospital, only one went on to mastoid infection.

One hundred and sixty-three tonsillectomies were performed, with one death. This death followed operation for a peritonsillar abscess. No untoward accident occurred during the operation. The patient did not recover consciousness after the operation, and died five hours later. Autopsy did not reveal the cause. The average stay in the hospital for all cases of tonsillectomy was twelve days.

Forty-one submucous resections of the nasal septum were done with no complications.

Fifty-one operations on the nasal accessory sinuses were performed without complications.

The average stay in hospital for 163 cases of acute tonsillitis was 9.1 days.

Three tracheotomies were performed; one for laryngeal diphtheria and two for gunshot wounds of the larynx.

Although a very complete set of œsophageal and bronchoscopic instruments were at hand, no occasion arose for their use. One foreign body in a bronchus was coughed up the evening before operation with much damage to our records.

We should like to add that in the experience of this service, malingering was almost unknown, up to the signing of the armistice. After this time almost any complaint of which nothing had been heard before was brought out and aired as a possible excuse for sending its victim home. In fact, it became almost a game, and no animosity was shown when it was found that the game was up.

ORTHOPEDIC SERVICE

HENRY C. MARBLE

WHEN Base Hospital No. 6 was organized, sailed for France, and first took up its work at Bordeaux, the Orthopedic Service was under the immediate direction of Capt. Z. B. Adams.

During the first months of the establishment of the hospital in Bordeaux, Captain Adams busied himself, not only with the organization of the Orthopedic Service, but with establishing and getting together the mass of the equipment for the proper carrying on of the work. Balkan frames, Thomas splints, weights, pulleys, and all the various appurtenances that go with the care of bone and joint injuries were made, and stored in rooms provided for the purpose.

During the fall and winter of 1917 the orthopedic wards were small and contained only a small number of patients, entirely under the care of Captain Adams. In January, 1918, he was detached from Base 6, and sent with the Reconstruction Division of the 26th Division; and in April the writer was detailed to duty with the 20th Engineers, Dax, for two months. During this time the orthopedic cases were for a while under the care of Lieut. (later Capt.) George A. Leland, Jr., and later under the care of Capt. Henry G. Turner, of Unit O, who had had an intensive, short orthopedic course before sailing overseas.

When the more serious cases began to arrive in the hospital, little by little the bone cases were segregated in Wards 6, 7, and 8, or thereabouts, and it was decided at once that it was necessary to have more adequate accommodations for these cases. They were then moved to a set of wards in Group 3, and placed under my care. These were wooden buildings beginning with Ward 24, and extending to Ward 31. They had been built by Colonel Washburn and were of the monitor type of building, of ample width, moderate height, and although designed to hold thirty patients, it soon became necessary to put forty, and later in the war as many as fifty in each ward. They were lighted by electricity, and heated by two large stoves. They had a dressing room on one side and a diet kitchen on the other.

As the summer of 1918 wore on, these wards became filled with bone and joint cases, and it was at this time that orders were issued designating them as the Orthopedic Department, with the writer as head of the service. All the appliances which had been prepared by Captain Adams were now put in use, and here in this small group of wards could be found between three and four hundred cases of bone injury. There was a nurse in charge of each ward, and under her were orderlies. In view of the large amount of work, it became necessary for the nurses to do practically all the dressings, and the load they were called upon to bear was tremendous, mainly because of the scarcity of medical officers. In some wards there were as many as fourteen or fifteen compound fractures of the femur, all in balkan frames with weights, pulleys, and splints, and with septic wounds to dress.

Being held responsible for the care of this great number of patients, it was necessary to obtain help from various hospital corps men, and during this strenuous period there were assigned to the Orthopedic Service several, who although not medically trained, aided in caring for the wounded. These men became quite expert in the care of fractures, and equally expert in the making and application of fracture appliances. With these diligent young soldiers it was possible to keep this large group of patients moving along smoothly.

During the latter part of the summer, two groups of Reconstruction Aides were attached to our organization. The first group had to do with massage and physiotherapy. They massaged the wounded limbs, gave the soldiers exercises, and by these means started the injured members back to normal function. The work was hard and the hours were long, but they were interested in the work and the results were most gratifying.

The second group were the Occupational Aides. Their work was the establishing of bedside occupations, and in a small way vocational training. Some of the wards were literally bee-hives of industry, and the wounded men who had been lying in bed, some of them for months without occupation, or any way of filling in the long hours, now had work to do. They made toys, baskets, and paintings. Distinctly the whole tone of the ward was changed, and these idle hours became most profitable.

Patients usually arrived direct from a field hospital or from a hospital in the advanced field zone. They came on hospital trains, and were transported from the trains in ambulances to the hospital receiving room. Here they were sorted by the Receiving Officer, and the bone and joint injuries were assigned to the Orthopedic Service. Usually when the patients arrived in the wards all dressings were taken down, and records of the case, which usually came in a small envelope around the patient's neck, read and studied. The dressings were reapplied, and the patients were sent at once to the x-ray department for pictures. The splints were readjusted and the patients generally suspended in balkan frames. The usual routine was to treat the open wounds by the Carrell-Dakin method, and the subsequent dressings were as a rule carried on by the nurse in charge of the ward. The splinting and the care of the balkan frames and the other apparatus on the patient was detailed to the men of the hospital corps. In many of these cases major surgical operations had to be done, cleaning up infected areas, removing shell fragments, and loose pieces of bone. Following these operations the after care consisted in reestablishing the Carrell-Dakin routine and the resplinting of the members. The wounds being healed, and the alignment of the fractures being satisfactory, the patients were then loaded into litters and sent directly to hospital ships in Bordeaux Harbor for their transportation to the United States.

It was not until February 1, 1919, that Base Hospital No. 6 was relieved, and the Orthopedic Service turned over to the relief organization, Base Hospital No. 208.

EPIDEMIOLOGICAL ACTIVITIES IN BASE

SECTION NO. 2

WILLIAM L. MOSS

“**H**OW I won the War” might serve as a common title to most of the accounts of personal experiences in the World War, and Unit Histories might equally well be written under the distinguishing title, “History of the Best Base Hospital Unit in the A. E. F.” The definitive number might follow in parenthesis for the information of such individuals as were not fortunate enough to be members of the unit in question.

Of course everybody knows that Base Hospital No. 6 was really the best base hospital, and contributed more to the winning of the war than any other unit; that is, everybody who was a member of Base Hospital No. 6 knows it, and writing (as well as reading) the history of the unit becomes much simpler if we merely take that fact for granted.

The organization of Base Hospital No. 6 was complete as an independent unit. It had its medical and surgical services, x-ray department, laboratory, quartermaster stores, medical and surgical supplies, commissioned, nursing, and enlisted personnel, all under the command of one of the most experienced hospital superintendents in the United States, who combined with his hospital experience a knowledge of the war game acquired in Cuba and the Philippines during the Spanish-American War.

The differences between a civil and a military hospital are perhaps not at once apparent to a layman, as they were not at once apparent to the medical officers who went into the service from civil life. The attitude which prevailed among these officers in the beginning was that they were physicians, not soldiers, and that if they had professional skill (about which none of them seemed to have any doubt) the rest was of no consequence. We soon changed our attitude on that point, at least those did who found their niche and fitted themselves into it. Some may still question whether the military organization is the best or the wisest one, but it was soon apparent that for every one to constitute himself a reformer in the army would quickly spell chaos, failure, and

ruin; also that it was up to us to play the game according to the rules. Probably the doctors needed to learn the lessons of discipline and respect for authority just as much as anybody else in the army.

The chief difference between running a large civil hospital and a military hospital of corresponding size is the comparative uniformity of the rate of admissions and discharges in a civil hospital as contrasted with the periodic accession of large numbers of patients coming in convoys to a military hospital, and the consequent necessity of having an adequate number of beds ready for these rapidly recurring emergencies. How this situation was met and solved, the development of crisis expansion, the establishment of convalescent camps, etc., will doubtless be described elsewhere in this history.

The writer's story has to do with the establishment of the Base Laboratory, and the Department of Epidemiology.

BASE HOSPITAL NO. 6 LABORATORY

The laboratory under the direction of Capt. Roger Kinnicutt, M. C. (later Major Kinnicutt), was thoroughly organized and equipped to do all the laboratory work for the intelligent diagnosis and treatment of all the patients that the hospital might receive.

The routine chemical, microscopical, and bacteriological examination of urine, sputum, feces, blood, spinal fluid, and other tissues was provided for, as was also serological diagnosis, including Wassermann, agglutination tests for typhoid, paratyphoids, and the typing of dysentery bacilli, pneumococci and meningococci.

A large, well-lighted room was fitted up with the necessary desks, shelving, tables, refrigerators, gas, electricity, running water, and other conveniences, so that we had practically all the facilities that are provided in a well-appointed laboratory anywhere. Thus were the laboratory needs of the hospital supplied; but meanwhile troops were pouring into the Base Section, camps were being established, the work of constructing docks, railroads, warehouses, etc., going forward. Base Section No. 2 comprised about a sixth of France, and organizations consisting of a few hundred to twenty or thirty thousand men were widely scattered over a large area. Of course each organization had its medical officers, and most of them had camp hospitals or infirmaries, but few organiza-

tions except base hospitals were provided with experienced laboratory officers, and practically none with laboratory facilities. Thus it might happen that in a camp of twenty thousand men there would be no means of making a bacteriological diagnosis of typhoid fever, meningitis, diphtheria, etc. In order to meet this situation, it was decided to establish in each base section a base laboratory, which would be equipped to do all the more highly specialized laboratory work for the entire base section. The writer was appointed Director of the Base Laboratory, Base Section No. 2, and after consultation with Colonel Siler, Director of Laboratories for the A. E. F., Colonel Shaw, Chief Surgeon, Base Section No. 2, Colonel Washburn and Major Kinnicutt, of Base Hospital No. 6, it was decided that Base Hospital No. 6 Laboratory should be expanded and become the laboratory for the Base Section, but at the same time, in addition to its other duties, should continue to function as the laboratory for Base Hospital No. 6.

The decision to make Base Hospital No. 6 Laboratory the laboratory for the Base Section was reached because of its central location with reference to the activities of the Base Section, the admirable rooms, equipment, and other facilities which Colonel Washburn placed at our disposal, and the nucleus of a competent laboratory staff. The laboratory rapidly expanded from a single room with two medical officers and two enlisted men to a fully equipped plant, consisting of a storeroom, office, media kitchen, pathological laboratory, bacteriological laboratory, clinical laboratory, water laboratory, autopsy room and morgue, and an animal house large enough to provide space for more than a thousand laboratory animals. The staff consisted of about ten officers and ten enlisted men. In spite of its admirable equipment and staff, it soon became apparent that the Base Laboratory was not fulfilling the function for which it was established. This was not due to the large number of troops which it was supposed to serve—over 200,000—but to the great area over which they were scattered, and the difficulties of transportation. Limoges was eighty miles to the north, Perigueux, ninety miles to the east, Biarritz, one hundred miles to the south; Mont Morillon, La Courtine, Lyons, were more than a hundred miles away. The transportation difficulties even from such places as Camp de Souge, St. Sulpice, St. André de Cubsac, Bassens, Lormont, and Grange Neuve, all within a radius of fifteen or twenty

miles, were so great as to make our service to these places unsatisfactory. Nevertheless this elaborate plant was kept busy from morning till night, day in and day out, and fully justified its existence (with the exception of the pathological laboratory), as will appear from a description of its activities.

Specimens from the operating and autopsy rooms were cut with a freezing microtome in the bacteriological laboratory. The pathological laboratory was added to receive and prepare museum specimens for shipment to the States in accordance with a plan which came to us from Dijon; but as we never received any specimens from other organizations and collected none from our own material, the room which had been fitted up as a pathological laboratory was turned over to the Reconstruction Aids and was used as a work shop by the crippled soldiers.

At the time the writer was made Director of the Base Laboratory, his station was changed from Base Hospital No. 6 to the Base Surgeon's office. While he continued to hold the title of Director of the Base Laboratory, Major Kinnicutt was actually in charge of the work, and to him and his loyal assistants is due the credit of the excellent work done by the laboratory.

It has frankly been admitted that the Base Laboratory failed to fulfill the purpose for which it was originally established, but it is appropriate to indicate what it did accomplish.

It performed the manifold routine laboratory examinations for Base Hospital No. 6 from the time it began to function as a thousand bed hospital throughout its growth and after it had reached its maximum expansion of 4,300 beds. As an example of the thoroughness of this work, it may be stated that practically all serum therapy was administered under bacteriological control. Wassermanns were done for all the organizations within the Base Section which lacked facilities for doing them. Throat cultures, sputum examinations, blood cultures, and bacteriological examination of feces were made on all specimens sent to the laboratory from other organizations. The stock of therapeutic sera for the Base Section was distributed through the Base Laboratory. Especial mention should be made of the work of the Water Division of the Laboratory under the charge of Captain Mohler (later Major Mohler).

Major Mohler and his assistants made routine bacterio-

logical and chemical examinations of all the sources of water supply in the Base Section at stated intervals. Those which were safe and those which were dangerous were labelled. The chlorination of water in Lister bags was supervised, and samples from the bags were tested from time to time to see that the chlorination was effective. Water in the railroad stations along the main routes of travel was tested and labelled as safe or unsafe for drinking purposes, and at important points, if the water was contaminated, an adequate safe supply was provided. Automatic chlorinating machines were installed at the Beau Desert Hospital Center, Mont Pont, Perigueux, Limoges, and other important centers.

When it was found that it was not feasible for the Base Laboratory to serve the entire Section, as had been at first intended, it was decided to establish a central laboratory at each hospital center, and plans for those at Beau Desert and at Limoges were prepared in the Base Laboratory. Furthermore, it seemed desirable to provide laboratories for some of the large camps, and accordingly these were built at St. Sulpice, Grange Neuve, and other places in accordance with plans furnished by the Base Laboratory. These and other laboratories were equipped from the Base Laboratory, and, in the case of some of them, officers from the Base Laboratory were detailed to run them. A central control was maintained over all the laboratory work of the Base Section with the exception of the central laboratories of the hospital centers, which were under the control of Headquarters, S. O. S. Nevertheless, close coöperation and pleasant relations were always maintained with their laboratories. This decentralization of the laboratory work met in a large measure the needs of the Base Section.

Other important activities of the Base Laboratory will be described when we consider the work of the Epidemiological Department of the Base Section, but it is of interest here to note that as early as January, 1918, Major Kinnicutt and Lieutenant Binger discovered that some of the anti-meningitis serum which had been issued was without potency. This was first suggested by clinical observations and confirmed by laboratory tests. Steps were promptly taken and this worthless serum was replaced by potent sera obtained from various sources. The Central Laboratory at Dijon was notified of the maker's name and the lot numbers of all the specimens

of anti-meningitis serum which were found to be without potency, and subsequently telegraphic orders were issued from the office of the Chief Surgeon, A. E. F., withdrawing this and certain other useless sera from use.

EPIDEMIOLOGICAL WORK IN BASE SECTION NO. 2

The writer, after being transferred to the Base Surgeon's office, had the opportunity of visiting most of the organizations in the Base Section. Among these were the large artillery camps at Souge, Le Courneau, and Libourne, the divisional training areas of the 34th, 84th, and 86th Divisions, each with a strength of more than twenty thousand men, the labor camps at Lormont and Bassens, the great Q. M. warehouses at St. Sulpice with their thousands of men, the rest camps, the forestry organizations south of Bordeaux, the various Remount Stations, the Naval Base at Pauillac, hospitals, convalescent camps, etc.

A study of the conditions in these various organizations showed that there were many health and disease problems to be considered. These included water supply, proper balance of rations, bathing facilities for men, facilities for washing and drying clothes, means for delousing infected troops, combating the fly nuisance, garbage disposal, construction of proper latrines, providing suitable sleeping quarters, especially with reference to preventing overcrowding which resulted from lack of tentage, insufficient building materials for barracks, and inadequate billeting space.

The Y. M. C. A., Red Cross, and other similar organizations were meeting the recreational needs of the men in an admirable way. The drinking water supply was being satisfactorily taken care of by the Water Laboratory. Shower baths, with hot or cold water, were installed wherever possible, and an effort was made to provide facilities for washing clothes, though in many instances crude makeshifts had to be resorted to for drying them. That the delousing equipment was nonexistent, or a failure, was evidenced by the fact that we had the cootie with us until he received his death blow in the embarkation camp just prior to returning the troops to the U. S. A.

Much was accomplished in combating the fly nuisance and menace by screening kitchens, mess halls, and latrines; building incinerators for the disposal of garbage; issuing and enforcing orders for the prompt removal of stable manure to a safe distance from the camp.

The overcrowding in the sleeping quarters was a difficult problem to solve for the reasons enumerated above, but we never relaxed our efforts to combat this evil, and consistently fought for a modification of G. O. 46, which allowed a minimum of twenty square feet floor space per man. Bulletin No. 94, which was issued in 1918, provided a minimum of forty square feet, but was emasculated by the words "where possible."

It was a laborious task and not accomplished until late in 1918, but practically all of the billets in the chief billeting areas were finally measured so that the billeting officer could know the square feet of floor space in each billet. After these data were obtained, the medical inspectors could at least enforce the twenty square foot requirement which previously had been violated in many instances.

Having become convinced that the Adrian Barrack, twenty feet wide by one hundred feet long, with its quad bunks, was ill adapted for the housing of one hundred men, an open-air sleeping shed divided into four sections, with cubicles separating the men into groups of four and provided with a drying room in the center, was designed and forwarded through channels to the Commanding General, S. O. S. This plan received his approval, and authorization was granted for the construction of ten of these sheds, in order that they might have practical test. This was not accomplished, however, until October, 1918, and with the signing of the armistice practically all construction ceased.

The epidemic of influenza seemed a tragic demonstration of the danger of overcrowding and of the quad bunk sleeping arrangement. It is questionable if any precautions we might have taken would have proved sufficient to prevent the spread of this disease, but we remain convinced that the spread of the respiratory diseases in general was favored by the close proximity in which the men slept, and it was with some satisfaction that we succeeded in getting through a G. O. in Base Section No. 2, requiring a solid partition between the lateral halves of all quad bunks before a similar though less stringent G. O. was issued from Headquarters, S. O. S.

A study of the conditions in the Base Section revealed many problems for the medical department. Many of these had already been definitely formulated and were being satisfactorily handled, but there was one field which seemed

scarcely charted, although its great importance was clearly apparent. In the organization tables of our army, Epidemiologist does not occur. The histories of all wars show that the losses from disease are much greater than from "killed in action." Furthermore, of the losses from disease, the majority are caused by epidemic diseases; therefore it seemed time to establish the office of Epidemiologist.

The first step in the epidemiological work was to get a complete census of all the organizations in the Base Section, with their station. This was done and a card index was prepared, using the company or equivalent organization as the unit. This index was kept up to date by obtaining the daily troop movement sheets. Additional cards were made out for troops entering the Base Section and placed in the current file. The cards for troops leaving the Base Section were removed from the current file and the destination of the troops noted on the cards, if this information was available.

The next step was to establish an effective system of reporting and recording every case of communicable disease that occurred in the Base Section. The list of reportable diseases was revised, and responsibility for reporting by telegraph or telephone, as required, was fixed on the proper officers. If all reports were not in by noon of the day following the twenty-four hour period to be covered by the report, the delinquents were called by long distance telephone and asked for their reports. Daily entries of all cases of reportable disease were made in the card index. By this system we were able, at a moment's notice, to give the station of any organization in the Base Section, and the daily incidence of each of the reportable diseases by companies or equivalent unit, while the Base Surgeon could sit in his office and keep his finger on the pulse of the Base Section.

By means of the information which we thus had at our disposal, we were able to give valuable advice with reference to troop movements. At first we hesitated to offer advice concerning troop movements, but made a practice of looking up the health (or disease) record of all troops in the Base Section involved in the troop movement orders, copies of which reached us every morning. A memorandum of the various reportable diseases showing the number of cases of each disease occurring in each company or equivalent unit for the previous two weeks was prepared and immediately sent to G. I.

The value of this information was so apparent that in a short time it became an established practice to get the O. K. of the Base Surgeon's office on all troop movement orders. The above example illustrates but one of the uses of reporting and recording the communicable diseases. It also furnished us information concerning epidemics in their incipiency, and made it possible to institute precautionary and preventive measures at a time when they might be effective in stopping further spread of the disease.

The appearance of a single case of meningitis or diphtheria was looked upon with concern. The diagnosis would be verified, if possible, by the Base Laboratory, the proper care of the patient provided for, and the actual contacts determined and isolated. If other cases occurred, an investigation would be immediately made and, if the conditions warranted, some form of quarantine would be instituted.

In all quarantine measures two aims had to be borne in mind: first, to protect the health of the troops; and second, to interfere as little as possible with their work. To accomplish these ends three forms of quarantine were adopted. The first was a partial working quarantine under which no effort was made to prevent the usual contacts with others while performing customary duties out-of-doors, but the men were isolated at all other times from outside contacts.

Under a second form of partial quarantine the affected organization might only perform duties which did not bring them in contact with other organizations.

Finally, there was an absolute quarantine which was only applied in rare instances where the conditions seemed to demand drastic measures.

The success of quarantine depends in a large measure upon the degree of coöperation which can be secured in carrying it out. In the army it depends largely upon the coöperation of the line officers. If they can be made to feel that the measures taken are reasonable and necessary and are calculated to conserve man power and not to increase needlessly the number of days of ineffectiveness, they are your best allies. Otherwise, success is not assured, even though the necessary quarantine orders are issued.

In addition to formulating general quarantine rules, a set of directions were prepared and published for dealing with each of the more important communicable diseases. These



WARDS ON THE COLIN ESTATE

U. S. Official



WARD CONSTRUCTION



Q. M. C. TRUCK AT HOSPITAL WAREHOUSE



THE GARAGE

directions prescribed the rules for isolating the patients, the means for determining contacts, the length of time they should be held in isolation, and the criteria on which they should be discharged. The wholesale taking of cultures was unnecessary as well as impracticable. When a focus of infection occurred, our effort was to discover it as early as possible, draw the smallest circle around it that would be reasonably sure to include all who might have been exposed and be in the incubation period of the disease, to make our circle impenetrable by appropriate quarantine measures, and then to fight tooth and nail inside the ring until the focus was eradicated. Daily, or twice daily, inspection of all suspects was usually substituted for wholesale culturing, and in cases where cultures seemed indicated, the number was reduced to practicable limits.

Early diagnosis, prompt isolation, and proper treatment of the sick, determination of the actual contacts, their isolation and daily examination, were the measures that were relied upon in combating epidemics, and it is felt that the results justified this policy.

Among other measures which were probably important in lessening the incidence of the infectious diseases were the more frequent use of the thermometer at sick call, and discouraging the pernicious practice of marking men "Quarters" who had any elevation of temperature. Fever means an infection more often than not, and holding a man in quarters until his rash comes out, or other distinctive signs appear of the disease with which he is suffering, exposes his "Bunkies" and squad mates to the contagion at a time when, as a rule, it is most readily communicable.

Believing that there is considerable truth in the familiar adage, "Forewarned is forearmed," the seasonal appearance of the various communicable diseases was anticipated, and bulletins were prepared in the Base Surgeon's office and sent out to all the medical officers in the Base Section, with the exception of those in the base hospitals. These bulletins called attention to the early diagnostic signs and symptoms, described the laboratory tests which might aid in or confirm the diagnosis, indicated the proper treatment, and outlined the measures which should be taken to prevent spread of the disease. Among the diseases which were considered in these bulletins were meningitis, diphtheria, influenza, pneumonia, the respiratory diseases in general, dysentery, etc. Bulletins were also issued

on Quarantine Regulations, Sanitation of Billeting Areas, and various other subjects.

The coöperation of the Base Laboratory with the Epidemiologist in studying and combating epidemics deserves especial mention. During the summer of 1918 many cases of "diarrhœa" were reported from all over the Base Section. It was impossible to make a bacteriological diagnosis in each case, but Major Kinnicutt sent out to all the organizations reporting any unusual number of cases of "diarrhœa," collected specimens of feces from ten to twenty average cases, and was able to demonstrate that in practically every outbreak we were dealing with a mild form of bacillary dysentery. This at once corrected the erroneous impression which prevailed that the disease was due to dietary factors, and directed our preventive measures along proper lines.

The first outbreak of influenza which was attended with any mortality in Base Section No. 2, occurred during July, 1918, in the Mimizan District, comprising five camps of Forestry Troops. Lieutenant Binger investigated this outbreak, and within twenty-four hours made a report covering the salient features of the situation. He was immediately put in charge, and within another twenty-four hours he had established a temporary camp hospital of a hundred beds, instituted adequate quarantine measures, and succeeded in keeping the disease out of the two camps which had not already become infected. He later established a convalescent camp of approximately one hundred beds, and remained in charge until the situation was well in hand.

During the month of August, 1918, there was a serious outbreak of influenza in Camp Hunt at Le Courneau, where approximately 20,000 men were concentrated. Major Kinnicutt and Lieutenant Binger proceeded to Camp Hunt with the necessary laboratory equipment, and made valuable bacteriological studies of this outbreak. The disease was already too wide spread to speak with accuracy of its control, and it is doubtful if it would have been possible to control it, but they gave valuable aid in organizing and directing the care of the cases in the 1,000 bed camp hospital which was located at Le Courneau, and by early diagnosis and segregation of the pneumonia cases probably did much to prevent the spread of this most serious complication. Among their most interesting observations with this outbreak was the finding of the

meningococcus as a not infrequent complicating organism. The first observations were made at this time, which led to an original contribution by Lieutenant Binger on the inhibitive action of certain of the anilin dyes on the meningococcus.

It was about this time that we had a rather unique opportunity of being of service and of winning the good will, and to a certain degree, the confidence of the Commanding General of the Base Section, and the recognition of G. H. Q. A serious epidemic had prevailed for some time among the horses at Camp de Souge. For three months the average loss had been about twenty-five horses a day. At a conservative estimate this meant a monetary loss of about \$12,500 daily, but was much more serious in the delay that it was causing in furnishing the artillery brigades their complement of horses and enabling them to get to the front, where they were urgently needed. It was reported that the situation was causing General Pershing and Secretary of War Baker grave concern, and caused them to make more than one tour of inspection to Camp de Souge.

The army has one peculiar advantage over most organizations in that, if they wish a specialist they create one by official order. Though none of us held diplomas from any school of Veterinary Medicine, Colonel Shaw was asked to take charge of the epidemic among the horses at Souge. At the time there were between 7,000 and 8,000 horses in the camp, one-third of which were evidently infected.

A plan of campaign was made which consisted in holding all horses coming to the camp in quarantine for a period of ten days, and admitting only those which were free from infection, segregating all the sick animals in the camp from those which were uninfected, thoroughly cleaning and disinfecting all the stables, corrals, watering troughs, harness, wagon poles, etc., white-washing all stables and corrals, and immediate condemnation and disposal of all hopelessly ill animals.

Over a thousand of the infected animals were transferred to the veterinary hospital at Carbon Blanc. New corrals were built to accommodate another thousand animals within the camp, the hopelessly ill horses were shot and removed from the camp, and so well was the clean-up program carried out that within three weeks the epidemic was controlled, and Lieutenant Binger, who was placed in charge of this work, received a citation from G. H. Q. in recognition.

Another piece of work, in which we can take satisfaction in feeling that we were of some service, was in connection with the selection of replacements from the 84th and 86th Divisions at the time of the great German Offensive, which had Paris as its objective. Urgent priority orders were received for 9,100 replacements from each of the two divisions above mentioned. These divisions had but recently come from the United States and were heavily infected with influenza. There seemed grave danger of spreading the disease at the front by sending such a large number of men from infected organizations, but the need was urgent and some risk was justified, although it was the part of prudence to reduce this risk to a minimum. Lieutenant Binger was sent to the 84th, and the writer to the 86th Division. In three days these two divisions had been combed through, the requisite number of replacements selected, and put on troop trains headed for the front. We were afterward told that there was no outbreak of influenza among these troops, and a congratulatory telegram was received by General Connor on the way in which the matter was handled.

It is disappointing that the Epidemiologist was helpless before the great epidemic of influenza. Such barriers as we tried to throw in the way of its spread were swept away as chaff before a mighty tempest. This frightful epidemic seemed to know no bounds, and before its advance we stood helpless. That this was true over the rest of the world is but poor consolation.

The first outbreak in Base Section No. 2 occurred during the latter part of April, 1918, at St. Sulpice. Two weeks later there was a small outbreak among the enlisted men of Base Hospital No. 6. Castels, Dax, and Ponteux were successively attacked, then it spread rapidly over the Base Section. At first we did not recognize the disease as influenza. It was called three-day fever, from the average duration of the febrile disturbance. The outstanding characteristics of the disease were sudden onset in a man previously feeling perfectly well, complete prostration with headache, backache, and deep-seated pains in the bones and joints of the extremities, a sharp febrile reaction lasting one, two, or three days, and leucopenia; otherwise the physical examination was negative. The suddenness of the onset was so acute that patients could, as a rule, tell the hour they were taken sick. In these early cases convalescence was rapid and complete, and the patients would be back on duty in from three to five days.

That the disease was highly contagious was indicated by its rapid spread and the large numbers of individuals in a community that would be attacked; an incidence of 40 to 50 per cent was not unusual.

The Mimizan epidemic previously mentioned, which occurred during the latter part of July, 1918, was the first in Base Section No. 2 which was complicated by pneumonia, and the first attended by any mortality. To continue the story of the epidemic through the succeeding months would be to write a chapter of horrors which would serve no useful purpose in this place, and with which we are all, already familiar. Through this dark story there is one ray of comfort which may be recorded. Soon after we entered on this second phase of the epidemic, in which the complicating pneumonia wrought such destruction, we became convinced that influenza cases stood transportation very poorly, and that pneumonia occurred with much greater frequency in patients that were transported even comparatively short distances. We therefore obtained two hundred and eighty-five hospital tents at a time when it was said there were no tents to be had. These, together with cots, blankets, and other medical supplies, were distributed to organizations that were without hospital facilities, and temporary hospitals were established so that cases could be taken care of in the places where they arose. Later General Noble issued an order forbidding the evacuation of any influenza or pneumonia patients without consent from the Base Surgeon's office. Many medical officers complained bitterly against this order, urging that their pneumonia cases should be evacuated to base hospitals where they could have skilled nursing and surgical care in case empyema developed, and that their influenza cases should also be sent to base hospitals because they were liable to develop empyema and pneumonia. The order was never modified, however, because we in the Base Surgeon's office believed that if the patient was put to bed as soon as he was taken ill, and kept absolutely at rest in bed, kept warm and fed, he had a better chance for his life than if he was transported even a few miles to a base hospital. Another reason for not changing this order was that the base hospitals were already full to overflowing.

It is the writer's belief that this policy in regard to influenza contributed more than anything else to the comparatively

low mortality rate in Base Section No. 2, the lowest, so far as I know, of any of the base sections in the A. E. F.

After the signing of the armistice, and with the subsidence of the influenza epidemic, the duties of the Epidemiologist began to grow lighter. He was, therefore, assigned to organize the medical work in the Embarkation Camp. According to the earlier plans only 20 per cent of the returning troops were to embark from Bordeaux; subsequently we were directed to prepare to handle 60 per cent of all the troops.

Before embarkation every soldier was to have his service record, War Risk Insurance papers, and qualification card verified and corrected if necessary, was to turn in all equipment, receive a receipt for same, be bathed, deloused if necessary, medically examined, and be issued new equipment before going aboard ship. Rest Camp No. 1 at Grange Neuve was converted into an embarkation camp and prepared to take care of 20,000 men at a time. The various billeting areas within a day's march of Bordeaux were prepared again for the reception of troops. A large building, several hundred feet in length, was erected in the Embarkation Camp, which was known as "the mill," into one end of which the men might enter in any state of dilapidation and pass out at the other end, clean and sweet and pure, even to a hair cut and a shave, with every article of equipment in perfect condition, ready to return to the U. S. A. a joy and a pride to his family and his nation.

The plans for this transformation were admirably laid, and the mill was exactly constructed for the performance of the manifold operations which were required. Too much space would be required for a detailed description of the building and its uses. Only a brief account of the medical work will be given. Two teams of five medical examiners each worked simultaneously, the men passing through the mill in two lines. It will be sufficient to describe in detail the work of only one team. The first examiner was stationed at the entrance to the shower baths, and made a venereal examination and inspection for pediculosis. If a man passed this examination he proceeded to have a bath, and on emerging from the shower room met the next examiner, who made an inspection of his ears, nose, and mouth, including teeth and throat. Next in line were two examiners who went over the heart and lungs. The last place in the line of examiners was held by a dermatologist, who looked especially for skin rashes.

The examination of the heart and lungs was not duplicated, but two examiners were assigned to this work because it required more time than any of the other examinations.

If any one of the examiners found any abnormal or suspicious condition, he noted it on a slip of paper with request for whatever special examination might be necessary for a diagnosis. The soldier was then convoyed by an orderly to each of the remaining examiners in the line, and when he had passed the last one he was shunted out of the line into a quiet examining room, where he received a more careful examination. Adjoining this room was a laboratory where throat cultures, urethral smears, and other simple laboratory procedures were carried out.

Any soldier who was found to be suffering from a communicable disease was immediately sent to the Camp Hospital. Cases of pediculosis were shunted out of the line into a large room specially designed for delousing, and when this object was attained, if they were otherwise normal, they were allowed to continue through the mill. A staff of dentists gave immediate care to any men needing dental attention.

The work of examining thousands of men, the great majority of whom are normal, is very fatiguing. The more so, because it requires great concentration of attention. Each examiner has about sixty men pass before him in an hour, the great majority of whom are normal, but each one must be regarded as possibly presenting some sign or symptom of disease. Constant alertness is required not to let the hundredth or the thousandth man, who actually is diseased, escape detection.

We were prepared to keep the mill running twenty-four hours a day if necessary. For this purpose four teams of five medical officers each were kept constantly on hand. In addition to these there was a consultant for each two teams and the necessary laboratory officers. We tried to work the teams on two-hour shifts, but frequently they would actually have a tour of duty of four hours or more.

It is true that the examiners gained proficiency and facility with experience, but on account of the monotonous character of the work, the teams were changed every two weeks.

The teams for this very routine but exacting work were made up from the various base hospital units in the Base Section. Letters were sent out to the commanding officers

of the various base hospitals outlining the plan and requesting that each hospital make up one or more teams, according to the number of medical officers available, and place them at our disposal. On our part we promised not to keep any team for a longer period than two weeks, and, if possible, not to call on any team for more than one two-week period. It is a pleasure to acknowledge the hearty coöperation on the part of the commanding officers of the base hospitals, and the cheerful and very efficient service rendered by the medical officers composing the various teams.

It would be easy to go on reminiscing through many more pages of the battle of Bordeaux, but this narrative has perhaps already been drawn out at too great length. I think no one came out of the war as he went into it. The experiences which we passed through left their mark on all of us, and what that mark is depended on what we put into our work.

For my own part, I have never had a more interesting or more valuable medical experience. I count myself most fortunate to have been a member of Base Hospital No. 6, and shall always be thankful for the way in which I, an outsider, was taken in and made to feel one of the unit. I could not have felt more at home with the men from the medical school and hospital from which I graduated, and I count the enduring friendships I formed in Base Hospital No. 6 the most valuable thing that I brought out of the war.

THE AGRICULTURAL UNIT AT BASE HOSPITAL NO. 6

HAROLD L. FROST, CAPTAIN A. R. C.

Chief of Hospital Farm and Garden Service

THESE farms were established primarily to furnish outdoor occupation for convalescent soldiers. In addition, fresh and appetizing vegetables were produced for the patients, most of whom had been living on a diet of canned goods for many months, a diet which was entirely lacking in vitamins. All of these vegetables were consumed by the patients in an absolutely fresh condition; amount of same recorded by weight and valued at the wholesale market price at time of consumption. Weekly records of production from all of the farms were kept and forwarded to Army and Red Cross headquarters.

That the agricultural work at the hospital in France was justified may best be shown by using the report of the farm at Base Hospital No. 6 as taken from the "History of the Hospital Farm and Garden Service of the American Red Cross."

BASE HOSPITAL No. 6

Working days of convalescent soldiers	2,220
Total amount of vegetables produced	34,353 kilos (75,766 lbs.)
Total value of vegetables produced	51,334 francs
Total operating expense	8,766 francs

The Massachusetts General Hospital unit, through its Commanding Officers, Maj. F. A. Washburn and Maj. Warren L. Babcock, and its Garden Officer, Capt. E. L. Oliver, played a far more important part in determining the final organization of the overseas hospital agricultural work than mere statistics can possibly show or recorded histories be able to relate. Under this unit the first all-American farm was started on April 14, 1918, and so successful was it as to warrant the recruiting, in August and September of the same year, of twenty-five more American farm superintendents for work in France. In fact, it became the model for all of the overseas farm work contemplated at the base hospitals.

This farm, located in Talence, consisted of about five acres of poor, run-out land, built up by heavy manuring under

the skillful management of the first farm superintendent, Capt. C. F. Jenness, A. R. C., of Newton, Mass. Due to lack of fertility, the only asset of this farm was its close proximity to an old French remount camp with an immense accumulation of well-rotted manure which was immediately transported to the Base Hospital farm. Liberally fertilized, thoroughly worked, and well operated with tools donated by Joseph Breck & Sons, of Boston, financed by Mr. James Jackson, of Boston, and by the town of Arlington, and enthusiastically supported by Boston medical men, is it any wonder that vegetables were growing within less than thirty days, even on an unprolific soil?

Exactly two months after our enrollment with the Base Hospital No. 6 staff, Monsieur Lafforgue, of Bordeaux, French Director of Agriculture, with two French experts, awarding agricultural prizes, visited this farm, and expressed the opinion that it equalled any of the army farms they had visited. They were profuse in their praise of the general condition of the vegetables and the work being done by the personnel of the hospital. This visit was made June 14, 1918.

The benefit of this work in other than actual food values is most difficult to estimate, but a very decided improvement in the condition of the convalescent soldiers working on the farms was noted. At Base Hospital No. 6 a number of convalescent soldiers applied to Captain Jenness for permission to work with him, and learn market gardening or truck farming as a profession. In addition, this farm supplied several thousand lettuce, cabbage, and tomato plants to the various farms and gardens in Base Section No. 2, serving as the source of supply for the American units in southwestern France.

Early in May a request for guinea-pigs and rabbits was received by the farm unit, and after much searching, the first animals were purchased May 18. These pigs, for the hospital laboratory, were secured only through the good will of Professor Ferret, Director of the Pasteur Institute, as it was found that they were completely out of the market, the statement being made that the Germans, through the Swiss, had bought up every guinea-pig in the country in order to cripple the allied work. With this French stock as a nucleus, animals were soon bred and made available for research work.

To utilize the hospital refuse, a small piggery was started, and ten young pigs were purchased May 22.

Owing to the limited area available within the hospital grounds this project was not enlarged, although there was an abundant supply of food going to waste. The plan was later developed most successfully at a farm operated by Captain Jenness, resulting from this preliminary work at Base Hospital No. 6.

July 3, Captain Jenness was transferred to Beau Desert, and Lieut. F. Howard Brown, of Marlboro, Mass., a graduate of the Massachusetts Agricultural College, took his place, continuing until after the armistice. This farm made possible the immediate operation of the Beau Desert farm on a much larger scale, through supplying it with plants, seed, and tools. In fact, the experience gained here, seedlings propagated, and American tools loaned, meant much to the success of a number of the army farms in Base Section No. 2.

The effect of this work on the farms, especially as it applied to shell-shocked men, is best expressed in a report from a high official who visited many of the hospitals.

“At one of our own hospitals where shell-shock cases are numerous, it has been found of the greatest benefit to get the men out on the farm at once, as they sleep better, eat more heartily, and forget their troubles far more quickly than if they are allowed to stay around where all the others are.”

ACTIVITIES OF MEMBERS OF BASE HOSPITAL NO. 6, IN ENGLAND

J. H. MEANS

IN the spring of 1918 Base Hospital No. 6 was saddened by the news that it was to lose its commanding officer. So efficient had he been in preparing a far larger hospital at Bordeaux than had been originally planned, that the powers that were decided to transfer him to take charge of a still more important work in Base Section No. 3, the British Isles. Until that spring it had not been contemplated to evacuate American sick and wounded to England, but with the decision to put American Divisions in the British line, came the necessity for quickly preparing adequate hospital facilities for them in England, for the lines of communication from the British front were such that it was not feasible to evacuate American patients from that front to American hospitals in France. Major Washburn was ordered to England to assist the Base Surgeon in the work of hospitalization.

On April 24 a farewell dinner was given to the Major at the officers' mess in the Château Crespy at Talence. Col. Henry A. Shaw, of the regular army Medical Corps, the Surgeon of Base Section No. 2, also a Massachusetts General Hospital graduate, was present and spoke in glowing terms of Major Washburn's construction work in Talence. The occasion was a memorable one. A cigarette case was given Major Washburn by his officers as a slight tribute of their esteem. The same day an enthusiastic meeting was held by the nurses, who put their sentiments in the form of a very handsome cigar case. Thus equipped, he said farewell to Base Hospital No. 6, and departed for Albion.

Arriving there, he found a situation somewhat as follows: The Base Section was essentially a line of communication. Its organization existed for the sole purpose of expediting troops landed in British ports to France. Headquarters were in London. Rest camps which had been turned over by the British were in operation at Liverpool, Winchester, Romsey, and Southampton. Troops arriving at Liverpool either spent a night at the Liverpool camp or were directly entrained and transported to one of the three camps in the Winchester dis-

tract, from whence, after a night or two, they proceeded to France via Southampton and Havre. The only hospitalization that existed in April, 1918, was the camp hospitals at these camps, and an American Red Cross Hospital at Mossley Hill, Liverpool—a total of not more than seven hundred beds. This camp hospital accommodation was obviously not intended for wounded. It was barely enough to care for the sick left in England by troops in transit for France.

Major (later Colonel) Washburn's job was to provide base hospital accommodation for the wounded from at least two divisions. Authority was obtained from the Chief Surgeon, A. E. F., to stop a certain number of base hospital organizations as they arrived from the States (four were actually so stopped). Hospital buildings for them had to be either constructed or obtained from the British. Colonel Washburn, under the Base Surgeon, was in charge of this work. From the time of his arrival in England until the middle of June, he was stationed in Winchester with the title, "Surgeon to American Troops, Winchester District." This area included the rest camps of Southampton, Romsey, and Winchester and, geographically, practically all territory lying south of the latitude of London. In June he was transferred to headquarters in London, and continued the hospitalization work from there. In the middle of May, 1918, two other officers of Base Hospital No. 6, Mixer and Means, were detailed and ordered to England to assist Colonel Washburn. They arrived at Winchester on May 20, taking station there in the District Surgeon's office. When Colonel Washburn was transferred to London, Mixer became Surgeon of the Winchester District and later Commanding Officer of Base Hospital No. 204, at Hursley Park, Hampshire. Means was transferred to London with Colonel Washburn and remained at that headquarters, except for certain short periods of temporary duty at various points in England, until January, 1919, when he was ordered back to Base Hospital No. 6 at Bordeaux.

The problem of hospitalization divided itself into two phases. The first was the improvement in the existing camp hospitals, which was an important matter, though less important than that of the second phase, which was the providing of adequate base hospital accommodation to take care of the wounded from France. The general scheme for hospitalization which was adopted in June, 1918, provided for

a total of 25,000 beds. To secure these beds it was necessary either to get buildings from the British which could be converted into hospitals or to secure them through new construction. The British Army made two offers. One of these was the conversion of a camp at Fort Efford, near Plymouth, into a hospital. The other, the expansion of an existing hospital at Hursley Park which had been, to all intents and purposes, a camp hospital, by converting a group of camp buildings close to it into wards. Both of these offers were accepted. No base hospital organization was ever secured for Hursley Park, but the personnel of Hospital Unit I, which had been there since the spring of 1918, was gradually increased by the addition of casual personnel, and the hospital was finally designated as Base Hospital No. 204, on September 24. Major Mixer was commanding officer of this organization during the period of its expansion, and his account of its activities appear elsewhere in this volume. The Efford proposition never functioned as a hospital, although at the time the armistice was signed the reconstruction was progressing favorably.

The personnel of Base Hospital No. 37 (King's County Hospital, Brooklyn) occupied the buildings at Fort Efford from the time of their arrival in England, June 4, 1918, until July 18, 1918, and it was originally planned to keep them there; but the reconstruction was progressing very slowly, and so they were moved to Dartford, in Kent, where buildings were available for the immediate reception of patients.

Civilian British bodies were of the greatest service to the American Medical Department. Through Maj.-Gen. F. G. Bond, the Chief Quartering Officer of the British Service, relations were established with Sir Marriott Cooke, and Dr. Bond of the Board of Control. Through them the splendid Portsmouth Borough Asylum was handed over, rent free, for use as an American war hospital. This was taken over and operated by the personnel of Base Hospital No. 33 from Albany, N. Y. In a similar way, the Metropolitan Asylums Board, through Sir Duncombe Mann, gave the use of two contagious disease hospitals, near London, also rent free, to the United States. The first of these, the Upper Southern Hospital, at Dartford, Kent, was operated by Base Hospital No. 37 of Brooklyn, as noted above, and the second, the Northeastern Fever Hospital, at Tottenham, by Base Hospital No. 29 from Denver, Colo.

Another base hospital project was at Sarisbury Court, Hants, an estate of about 170 acres, which was purchased outright by the American Red Cross, and the construction of a 3,000 bed hospital was undertaken by them to be turned over to the army for operation. The project was not completed at the time of the signing of the armistice, but the personnel of Base Hospital No. 40 from Lexington, Ky., was stationed there and received patients from September 4, 1918.

In addition to these four base hospital projects, two Military Red Cross Hospitals, No. 4 at Mossley Hill, Liverpool, and No. 21 at Paignton, Devonshire, fulfilled the functions of base hospitals. Two small Red Cross Officers' Hospitals in London, one at Lancaster Gate and the other in St. Catherine's Lodge, Regents Park, were taken over by the American service and run as wards of Base Hospital No. 29 at Tottenham. The American service should be very grateful to Lady Harcourt for her management of the Lancaster Gate Hospital. This duty she performed both under the British and later under the Americans. She had also done similar work at Paignton in the days before that hospital came under American military supervision.

A hospital project was also under way, under the auspices of the British Red Cross at Richmond Park, where they were constructing a 500 bed hospital which was to be given to the American Red Cross upon completion. It had not progressed very far on December 1, 1918, and had not been turned over to the Americans on that date.

In the matter of convalescent hospitals and camps, nothing very much was ever accomplished. The Casual Camp at Winchester was used as a convalescent camp to a certain extent, and a portion of the Rest Camp at Standon, near Hursley, was used as a camp for contagious disease contacts, through the summer of 1918. An excellent officers' convalescent hospital was run by Mrs. Spender-Clay, under the auspices of the American Red Cross, at her estate at Lingfield, Surrey, and a convalescent home for nurses was run by the American Red Cross at Putney. A small and most excellent convalescent home for soldiers was provided by Mrs. Gordon Selfridge at her home at High Cliff.

The total capacity of the existing buildings in the various hospital projects outlined above was approximately 7,000. As we have said, the general scheme adopted in June provided for a

total of 25,000 beds. It later was reduced to 20,000, which left approximately 13,000 to be provided for by new construction. New construction was planned for each base hospital sufficient to bring them up to a capacity of 3,000 beds for Nos. 33, 37, and 40; 2,400 for No. 29; and 2,000 for No. 204. New construction was also planned to enlarge the camp hospitals so that they would alternately have an average capacity of about 500 beds. This new construction was accomplished through various channels. At Camp Efford, at Knotty Ash, Liverpool, the construction was in the hands of the Royal Engineers. At Mossley Hill, Liverpool, Red Cross Hospital No. 4 at Romsey and at Sarisbury, it was handled by the American Red Cross and at Dartford, Tottenham, Portsmouth, and Hursley Park, at each of which blocks all new pavilion wards were contemplated, the construction was in the hands of the Engineers Corps of the United States Army. For the new blocks at the five base hospitals a uniform type of ward building, containing sixty to one hundred beds, was adopted.

At the time the armistice was signed the new construction, taken as a whole, was about fifty per cent completed. The total number of base hospital beds on that date ready for occupancy was only 6,600, but two months' time would have seen the whole 20,000 ready for occupancy. The Menston Asylum in Yorkshire had been offered by the trustees, through the Board of Control, as a war hospital, and had not hostilities ceased, would have been taken over.

In other words, though less than half of the authorized beds were actually ready for occupancy on November 11, the balance were in sight and would have been ready in a few weeks' time. All construction was stopped with the signing of the armistice, and the Menston project was dropped.

Such in brief was the general scope of the hospitalization work in England, which was Colonel Washburn's main contribution during his tour of duty in England and which occupied his entire time until October 18, 1918, at which time he was appointed Chief Surgeon of Base Section No. 3, relieving Brig.-Gen. F. A. Winter.

It is a pleasure to record in connection with these hospitalization activities of the American Army in England the very valuable coöperation of one of our own Massachusetts General Hospital Trustees, Mr. William Endicott, who in his capacity as American Red Cross Commissioner for Great



MAJ. LARRY B. MCAFEE



LIEUT. F. C. IRVING



LIEUT. COL. LINCOLN DAVIS

Britain was often able to render the Medical Corps most timely and valuable assistance.

Following the armistice, the activities of the Medical Department were largely those of closing up hospitals and of evacuating troops and sick and wounded to the United States. As very few hospital ships were available, patients had to be sent on transports as opportunity for their proper care arose. The majority embarked from Liverpool. Most of the transports could accommodate few patients. The largest shipments were as follows:

On December 4, the *Leviathan* embarked from Liverpool with 1,425 patients, of whom 106 were litter cases.

On December 15, the *Saxonia* was fitted as a temporary hospital ship and embarked 1,345 cases, of whom 160 were litter cases, from Tilbury.

On December 23, the *Mauretania* received 327 patients, including 156 litter cases, in Southampton.

On January 3, a real hospital ship became available for the first time. The U. S. S. *Comfort* embarked 245 of the worst litter cases fit at all for transportation at Plymouth. Major Means was appointed Embarkation Medical Officer, after the armistice, for all ports other than Liverpool. He had medical charge of the embarkation of the *Saxonia* from Tilbury, the *Mauretania* and *Louisville* from Southampton, and the U. S. S. *Comfort* from Plymouth.

Tables of statistics are hardly desirable for the purpose of the present history, but a bird's-eye view of the number of patients in hospitals in the British Isles will give some idea of the organization of the hospitalization and of the rate of evacuation after the armistice. The total number of American patients cared for in England was between 40,000 and 41,000. Of these, 11,000 were wounded or injured. The remainder were sick. From February, 1918, until July, 1918, the total number of Americans in hospitals averaged between 1,000 and 1,500. Through July and until the middle of November, there was a rapid increase until a maximum of between 13,000 and 14,000 was reached. The greatest number in American hospitals at any one time was about 18,000; the balance were in British hospitals. On November 19 there were 12,950 American patients in England. On December 16 this had dropped to 3,650, and on January 26 to 500.

From the point of view of communicable diseases one of

the most important events was an epidemic of typhoid fever, which appeared in the 4th Company of Casuals from Camp Cody. A description of this epidemic has already been published¹ and further reference to it will be found in this volume.

The greatest event was the influenza epidemic, which afflicted the people all over England just as it did almost the entire civilized globe. From the point of view of the American Medical Department, the epidemic presented a singularly distressing problem, because of the enormous numbers of men sick with influenza arriving at various ports on transports. Some of these transports were veritable plague ships. The *Olympic*, for example, which was the first of these, arrived at Southampton on September 21 with 5,951 troops, out of which number, during the succeeding three weeks, 1,668 cases of influenza developed, and among these there were 317 deaths. The epidemic on the *Olympic* only made its appearance two days before she reached Southampton, and unquestionably would have been much worse had it appeared earlier. Although it was estimated that there were about 10,000 cases of influenza among American troops in England, and of these about 3,000 developed pneumonia, by far the larger proportion of them developed the disease while on transports or soon after debarkation.

The American quarters and mess which was established at 31 Half Moon Street, around the nucleus from Base Hospital No. 6, is perhaps worthy of a word or two. The nucleus consisted in Colonel Washburn and Captain Means. These two Yankees, having been transferred to London in the middle of June, decided that they had best take lodgings, as they felt this to be a custom of the natives. They therefore wandered aimlessly about one afternoon in search of such and chanced into Half Moon Street. On reaching the door of No. 31, which seemed to be a decent appearing domicile, they were greeted by an elderly party who styled himself, "Hedward," who later became the faithful servant of the mess. The house belonged to Miss Christina McDonald, a most estimable lady, who provided a home for a number of Americans for several months. She showed Colonel Washburn and Major Means very comfortable quarters at a moderate price, and they moved in that very day. So reasonable was the price that a sitting

¹ Outbreak of Typhoid Fever Among American Troops. By C. B. Hawn, J. D. Hopkins, and F. M. Meader. *Journal of the American Medical Association*. Vol. 72. p. 402.

room which was used as a dining room was also engaged, and a number of American friends soon moved into either the same building or into the houses on either side. Dr. J. Lewis Bremer, for example, was a member of the mess from June to September. Dr. Bremer was attached to the American Red Cross headquarters. Capt. George P. Denney, of Boston, who had been transferred from Base Hospital No. 5 at Boulogne to London, to study aviation medicine, also spent the summer in the mess at Half Moon Street. Maj. F. R. Jouett, a Massachusetts General Hospital graduate, was discharged from the British Service early in the summer of 1918 and entered the U. S. Army. He was assigned to duty at headquarters in London and, naturally enough, joined the Half Moon Street gathering, much to their joy. In a similar way, Maj. F. Clinton Kidner, who had been stationed at St. Catherine's Lodge, doing Orthopedic Surgery in the summer of 1918, was made consultant in Orthopedic Surgery for the Base Section, and at that time joined the Half Moon Street mess. Mr. Stuart Smith, of Philadelphia, who was a Red Cross Official, and Maj. Charles H. Young were also there for several months each. It was altogether a most congenial bit of the United States; Medical United States, too, right down in the very middle of London.

Several social occasions, to which all participants looked back with the greatest pleasure, occurred in the mess, especially the Thanksgiving and Christmas dinners of 1918, when we had various visiting officers with us and when Miss McDonald endeavored successfully to make us feel at home and provide us with the very best of food and drink that could be obtained.

None of the American medical officers whose good fortune led them through England will forget the kindness and hospitality of Sir William Osler. His home at Oxford was always wide open for their entertainment whenever their duty would let them go there; and on many occasions he came to meetings of one kind or another at London. The one which particularly gladdened the hearts of the Massachusetts General Hospital men was the Ether Day Dinner held at the American Officers' Club on October 16, 1918. We succeeded in finding twelve men who were either graduates or staff members, or who were in some way connected with the Old Hospital. As guests we had General Winter and Sir William. General Winter, one of the most delightful after-dinner speakers,

gave a very interesting outline of the growth and development of the Medical Department of the American Expeditionary Forces. Sir William spoke in memory of the day we were celebrating. He brought with him from Oxford some of the treasures of his library; original copies of articles by Morton, Warren, and Bigelow. These he demonstrated as the treasures they were; his kindly eyes sparkling with enthusiasm. It was altogether a never-to-be-forgotten occasion.

Sir William's telegram to Dr. Warren now hangs framed in the Treadwell Library, a suitable monument of this Ether Day in Foreign Parts.

ACTIVITIES AS SURGEON OF BASE SECTION NO. 2, BORDEAUX, AND THE PARIS SECTION

LARRY B. MCAFEE

MAJ. LARRY B. MCAFEE, Adjutant, Base Hospital No. 6, was ordered from the unit on September 1, 1917, and directed to report to the Commanding Officer, Base Section No. 2, which office had just been designated, as Base Surgeon. The Base Section comprised the southwestern portion of France, with Bordeaux, the Headquarters, destined to become one of the largest freight ports of the American Expeditionary Forces. He reported to Major Gibbs, of the 15th Engineers, who with one company of that organization was making a preliminary survey for the Bassens dock project across the river from Bordeaux. These two officers were the nucleus of the staff of Base Section No. 2.

The immediate concern of the Medical Department was the installation of sanitary construction at the rest camps then under construction by the French for American troops, and the completion and organization of camp infirmaries by the time of arrival of American troops. These camps combined had a capacity of 12,000 men. The infirmaries provided for a total bed capacity of 240 patients, two per cent of the camp population. By additional buildings this capacity was doubled within a short time after the camps were occupied. This additional capacity made it possible to relieve Base Hospital No. 6 of the care of many trivial cases, that hospital being the only one in the Base Section where definitive treatment, for over a period of five months, could be given. Upon recommendation of the Base Surgeon, the method for the disposal of excreta was changed. The latrines were altered to make them more nearly conform to our standards of field sanitation, and ventilating cupolas were installed in all Adrian barracks to compensate in part for the crowding of troops in quarters. Permission was obtained from the French authorities to dump excreta into the Gironde River on an outgoing tide. This was accomplished by building a pier out into the river with a crib at the end. A sanitary department was organized which hauled all soiled cans to the pier, where the contents was

dumped into the crib. The cans were then washed with water under pressure, following which they were oiled. The crib was opened on an outgoing tide, and the contents was carried down the river by the current.

The following duties and projects were undertaken by this officer during the time he was base surgeon, September 1, 1917, to March, 1918.

1. Organization and expansion of the office of surgeon, Base Section No. 2.

2. Supervision of construction and organization of infirmaries at Bassens, Bassens Docks, Genicart, Grange Neuve, Ponteux, La Pallice, San Sulpice, and the camp hospitals at Camp de Souge and Le Courneau. Arrangement for medical care and hospitalization of sick of the camps engaged in forestry work in southwestern France.

3. Establishment of Prophylactic Stations in and around Bordeaux, instruction of troops in disease prevention and moral hygiene.

4. Provision for ship inspection and quarantine at the American docks at Bassens.

5. Sanitary member of the board making preliminary surveys of billeting areas in southwestern France.

6. Liaison Officer for the 18th French Region and inspection of properties in southwestern France proposed by the Service de Santé as locations for American hospitals.

7. Preliminary work in water survey for the Base Section and through the laboratory, Base Hospital No. 6, investigation into the method of water chlorination as practised by the troops, and the lack of standardization of the hypochlorite furnished.

In March, 1918, Col. Henry A. Shaw, M. C., a graduate of the Massachusetts General Hospital, was ordered to duty with the Headquarters, Base Section No. 2, and became Base Surgeon. Major McAfee continued in that office as first assistant.

On May 16, 1918, Major McAfee reported to the Chief Surgeon, A. E. F., at the S. O. S. Headquarters at Tours for duty as assistant to the Chief of the Medical Property Division. This work had to do with the procurement, storage, and issue of property used by the Medical Department. While on this duty Major McAfee was promoted to the grade of Lieutenant Colonel, M. C., National Army.

On September 19, 1918, this officer reported to the Commanding General, District of Paris, for duty as assistant to the District Surgeon. On September 21, 1918, the District Surgeon was ordered to General Headquarters, Chaumont, for duty and Lieutenant Colonel McAfee became District Surgeon by reason of seniority. He continued in that capacity until July 31, 1919, ten days after the Headquarters, District of Paris, had terminated.

Paris was the location of the original Headquarters of the American Expeditionary Forces upon the arrival of the first troops in France. When the General Staff was organized, it moved to Chaumont. The Headquarters of the Lines of Communication, which became the Service of the Rear and then the Service of Supply, remained in Paris until January, 1918, and was then transferred to Tours. The supply branches under the Purchasing Board and the technical services, however, continued to maintain offices in Paris on account of the scientific and market advantages. The several small detachments were cared for in a medical way by the attending surgeon's office, which was organized in the summer of 1917 and commanded by Major Howard Beale, a graduate of the Massachusetts General Hospital, during the fall of that year. The American Red Cross Hospitals Nos. 1, 2, and 3, which were in existence before the arrival of American troops in France, were militarized under the Medical Department of the United States Army and were the nucleus of the Medical Department activities in Paris.

At this time it was not the policy to extend American hospitalization in Paris on account of the insecurity of the city against invasion by the enemy. However, during the March offensive and notably the offensive of May 27, the American wounded filtered through to Paris in large numbers, many coming with the French wounded on their hospital trains. It was necessary for the Americans to increase their hospital facilities. This was done through the American Red Cross, which arranged for the rental of properties, the equipment of the same as hospitals, and the operation of the messes. The Medical Department installed the necessary personnel and administered the hospitals. These hospitals were designated Red Cross Military Hospitals, and eventually totalled seven in number, exclusive of convalescent homes for both officers and soldiers.

In July, 1918, it was apparent that the program for the construction of Class "A" hospitals, that is, the temporary pavilion type hospitals of a thousand bed capacity, and arranged in groups of from five to twenty thousand each, could not keep pace with the bed requirement. A policy was therefore determined upon to establish additional hospitals in permanent buildings, such as educational institutions, large châteaux, and French barracks, for the purpose of rapidly increasing our hospitalization. A total bed capacity of 20,000 was allotted to the District of Paris. Through the most efficient service of Lieut. Col. Joseph D. Weis, M. C., a graduate of the Massachusetts General Hospital, 1899, in liaison with Médecin Major Monier and Major Mortier of the French Service de Santé, suitable properties were obtained within the district before the armistice to have given in excess of 20,000 beds. Hospitalization of these properties was not completed on account of the shortage of the necessary personnel. The sanitary material for the most part had been secured and was on hand ready to equip the buildings.

During the latter part of September, 1918, the epidemic of influenza broke out among the troops, which at this time numbered about 15,000. Maj. Robert W. Holmes, M. C., one of the original officers of the unit, did most effective work as Sanitary Inspector, and the epidemic was of short duration and completely under control by the time it had reached the civil population.

During the expansion period preceding the armistice an attempt was made to form a hospital group of all the hospitals in the District of Paris, and to this end a convalescent camp was organized; the Emergency Medical Supply Depot was placed in larger quarters and expanded to meet the property demands of all hospitals, and a classification board was under organization that would have acted upon all cases of convalescents from all hospitals before the final disposition. Throughout this work the District Surgeon acted in the capacity of a Hospital Group Commander, as well as a staff officer on the Staff of the Commanding General, District of Paris.

After the declaration of the armistice the following problems presented themselves: policy for salvage of hospitals; evacuation of the wounded in hospitals under treatment; maintenance of sanitary conditions for troops on duty in the dis-

trict and for those in the city on leave; control of venereal disease.

The Chief Surgeon, A. E. F., approved of a policy to the effect that the sick and wounded would no longer be evacuated from points outside of the District of Paris to hospitals within the district. This allowed of an immediate cut in the bed capacity, following the evacuation of the sick and wounded, as it was then necessary to carry sufficient hospitalization only for the need of troops within the district. The evacuation of the sick and wounded progressed steadily and, with concentration of the non-transportable by rail in Base Hospital No. 57, the salvage of hospitals progressed with the evacuation of patients. The number of patients at the time of the armistice was approximately 11,000. This number was reduced to about seventy-five at the time the District of Paris went out of existence, July 21, 1919. These were quartered at Camp Hospital No. 112, which at one time had been an annex of American Red Cross Military Hospital No. 3.

When the Cascerne Cligancourt was evacuated by Base Hospital No. 85, it was taken over for the troops on duty in the district. This relieved the congestion in quarters that had prevailed, and did much toward keeping the men under control.

With the relaxation following the armistice an increase in the venereal disease rate was anticipated, and the Division of Urology became one of the most important branches in the office. There was an acute rise in the rate during November and December, 1918, but through the excellent coöperation of the Commanding General this rate was gradually reduced from January to May, 1919, when on the latter month it reached 49.6 cases per thousand per year, which is comparable to the peace time rate in the United States.

There were twenty Medical Department units in the District of Paris. The greatest number of patients in hospitals at any one time was slightly over 12,000, which occurred during the latter part of October, 1918. The medical personnel approximated 3,800. Of this number, 600 were nurses and approximately 500 were medical officers.

Lieutenant Colonel McAfee was promoted to the grade of Colonel, M. C., National Army, May 5, 1919.

SURGICAL TEAM NO. 1

LINCOLN DAVIS

PURSUANT to Special Orders No. 60, G. H. Q., March 1, 1918, amended by subsequent telegraphic orders, Surgical Team No. 1 left Base Hospital No. 6 on March 3, 1918. The team was composed of Maj. Lincoln Davis, Capt. Frederick C. Irving, officers; Glee Marshall, Helen T. Nivison, Margaret Matheson, reserve nurses; Corp. William Wilkinson; Privates 1st Cl. Harry L. Park and Nicholas L. Marks, orderlies.

The order read, "to proceed to Headquarters, 42d Division, A. E. F., reporting upon arrival to the commanding general, for temporary duty."

After two nights and a day of travel, with a stop over in Paris and Nancy, the surgical team arrived at Luneville on the afternoon of March 5, and reported. The officers and nurses were comfortably billeted in private houses in Luneville. The team was assigned to work at French Military Hospital No. 102 in Luneville, which had been partially taken over by U. S. Field Hospital No. 166, under Major Spealman.

The first casualties for which the team was called on occurred on March 7, when ten men and a horse were killed and two men wounded at Gerberviller as the result of fooling with a dud shell which was picked up in a field, where it had been lying since the German advance and retreat in the summer of 1914. The first case treated was one of severe multiple wounds with marked shock. Operative interference was out of the question, and only an intravenous saline infusion was given, the soldier dying within a few hours. The second case, also with severe multiple shell wounds, was treated for shock for twenty-four hours, at the end of which time, having rallied slightly, an amputation below the knee was performed. Gas gangrene later developed, requiring amputation above the knee. The boy survived, and was later evacuated to a base hospital in what I believe was the first American hospital train in operation at the front, and a very fine one it was.

The French authorities at Hospital No. 102 held gas gangrene in such holy horror that we were obliged to operate in the dispensary, and the entire team was quarantined from

entering the operating room for a number of days. Such a prudent policy could only be pursued in a restful sector in times of comparative quiet, and it seems somewhat grotesque in view of some later experiences. Such was the rather inauspicious start of Team No. 1 in war surgery.

On March 23, Luneville was shelled by the Germans; our first experience of shell fire. The municipal bath house was struck by a shell and partly demolished, shortly after Privates Marks and Park had bathed in it. Fortunately there were no casualties; but the episode illustrates some of the difficulties and dangers of cleanliness in the A. E. F. In the late afternoon of the same day, at a time when the big shells were dropping in at regular intervals, and the streets were quite deserted, most of the war-wise inhabitants of Luneville having retired to their *caves*, it was a strange and heartening sight, though perhaps not one in accord with the strictest sense of military prudence, to see a considerable group of American doughboys in the Place Leopold enjoying a few leisure moments with bat and ball knocking up flies.

After a very light service in Luneville our team was transferred to Baccarat on March 30, the Rainbow Division having settled in the trenches in that sector. We went on duty with Field Hospital No. 165, under the command of Captain Sawtelle, a most capable officer, who was handicapped at the time by lack of much needed supplies and equipment. Very shortly afterwards, Evacuation Hospital No. 2, Major (later Colonel) H. M. Lyle, commanding, arrived on the scene, and took over the buildings occupied by Field Hospital No. 165. Our team was assigned to duty with the former hospital, although still technically attached to the 42d Division. Evacuation Hospital No. 2 had a very complete equipment, and great energy and much skill were shown in getting it set up and in working order.

Here we worked for the next three months under unusually favorable conditions. Supplies were now abundant and of excellent quality. There were three other surgical teams besides our own on duty, and a healthy and friendly rivalry stimulated all efforts. Major (later Colonel) George E. Brewer was Division Consultant in surgery; he supervised the work, and held weekly conferences at which the teams reported fatal cases, and results of wound healing. Colonel Brewer's distinction as a surgeon, and his enthusiasm, energy, and

personal magnetism, could not fail to impress all who were brought into contact with him, and to inspire their best efforts.

Owing to the fact that this was a relatively quiet sector, with stabilized trench warfare, we were at no time overwhelmed with work, and usually could retain our cases for at least ten days, so that wound healing could be observed. We evacuated by ambulance to base hospitals fifty miles distant, and were thus enabled to get reports through the consultant on cases in which we were particularly interested: a rare privilege in war surgery.

The x-ray department, bacteriological and pathological laboratories were in skilled hands, and permitted of scientific study of cases so necessary in the surgery of war.

The superintendent of nurses, Miss MacDonald, was a woman of unusual tact, ability, and character, who had been decorated for bravery in the British service, where she had been wounded while in the operating room of a casualty clearing station, resulting in the loss of an eye. It was a great privilege to have been associated with this brave and devoted American nurse, who is an honor to her profession.

I think it can fairly be said that the team acquitted itself with credit at this hospital. The nurses and orderlies rendered most cheerful, skillful, and devoted service, and no team in the A. E. F. could have been better equipped in this respect.

We were never worked under the severe pressure which became necessary later in the summer, but even in this quiet sector we had a few strenuous times. One night our team operated continuously from 8 P.M. to 8 A.M., and we had many eight hour stretches. We were visited almost nightly by Boche planes dropping bombs in the vicinity of Baccarat, some of which struck quite near the hospital, though I do not think the hospital was ever their objective. We were about nine kilometers from the lines, and occasionally an enemy shell came our way, though we were never under direct or severe fire.

During May there were a number of fairly severe gas attacks by the Germans; 180 cases, mostly due to phosgene gas, came in one night with twenty-two fatalities, among them two Y. M. C. A. secretaries. Evacuation Hospital No. 2 received a citation from General Pershing for its handling of gassed cases, which to the surgeon are far more terrible and distress-

ing than the wounded. This work was done by the Medical Staff, but members of the team, especially nurses and orderlies, assisted in it when not busy in the operating room.

By June 21 the Rainbow Division had moved out of the sector, and was replaced by the 77th. Our team was then attached to Evacuation Hospital No. 2 by specific orders; we had until this time expected and hoped to follow the Rainbow Division, with which we had been closely associated for three months, and it was a wrench to be parted from them. We had seen these boys coming in a continuous stream to the hospital, gassed and wounded, in pain and distress, bleeding and dying, and had grown to love and admire them. Such patients we had never had before; so brave, cheerful, and appreciative. Their stoicism and jokes under painful dressings, their unfailing courtesy and respect for the women nurses, made an impression on all of us which we can never forget. There were soldiers in other divisions doubtless of the same stuff; in fact, this was the type of the American doughboy, and to have been of service to such men when wounded was a rare privilege, and sufficient reward for any effort. The memory of what these boys suffered, and what they did, will always make America mean more to those of us who saw them. We were with the 42d only in their early baptism of fire; they were later given the acid test of open warfare in full measure, and with what credit they acquitted themselves on the Marne, the Meuse, and in the Argonne, are matters of history.

On July 19, 1918, our team was split up; the officers and men, with the addition of Lieut. Paul H. Lippold and Private Chester Gardner from Base Hospital No. 6, were ordered to report to Field Hospital No. 331 at Martigny le Roi for duty with the A. E. F. in Italy. The nurses were detached and later put on a shock team, and served for several months in this arduous and soul-trying work in several evacuation hospitals at the front, returning to Base Hospital No. 6 in the autumn.

The new team reported to Maj. Philip Van Ingen, commanding officer of Field Hospital No. 331 at Martigny le Roi, and on July 25 entrained for Italy, accompanying the 332d Regiment of Infantry under the command of Col. William Wallace. We arrived at Villafranca on July 27, receiving a most enthusiastic welcome from the Italians all along our route.

The Field Hospital was at first set up in a small schoolhouse in the little hamlet of St. Lucia, later moving to a more commodious villa at Custoza, close to the historic battlefield. This villa was superbly situated on the hills north of Villafranca, fronting a beautiful garden. Modern plumbing was conspicuously absent, but a very adequate hospital was nevertheless established.

The regiment, which had been reviewed by the King on August 1, went into camp at Valeggio near by, and settled down to a period of intensive training.

The surgical team had little professional activity for a time, attending merely to the routine surgery incidental to camp life.

Major Van Ingen, an officer of great energy and resourcefulness, was faced with the difficult problem of adapting his Field Hospital personnel and equipment, to the requirements of providing advanced hospital facilities for three battalions which were expected to go into widely separated sectors of the line, as well as maintaining a small base hospital to which cases could be evacuated from the front. Fortunately, the problem was soon simplified by the arrival of U. S. Base Hospital No. 102 at Vicenza, under command of Lieutenant Colonel Hume. Although technically assigned to the Italian service, this hospital arranged to care for American soldiers evacuated from Field Hospital No. 331.

In the matter of supplies and equipment the American Red Cross in Italy responded with the greatest zeal to all our requests, and from first to last was of inestimable value to the Medical Service of the Army. The head of the surgical team, being also surgical consultant to the American forces in Italy, was vitally interested in all the arrangements which concerned the care of the wounded. The Red Cross ordered from the Italian Government an *Ambulanza Chirurgica*, which was to be put at the disposal of our Medical Department. This mobile unit, one of the most complete and perfect that could be imagined, was not finished until after the armistice, and unfortunately never came into use.

On September 13 a portion of the Field Hospital was sent over the road to Limbraga, near Treviso, to establish an advanced hospital to serve one battalion of the regiment which had gone into the line on the Piave. Two battalions remained in training at Valeggio. The greater part of the surgical team

accompanied the advanced section. On the same day a serious accident occurred at Valeggio; a trench mortar exploded, killing five men and wounding fifty, among them many officers, some very seriously. Lieutenant Lippold and Private Gardner of the team, who had remained at Custoza, did valiant service this day, together with the officers and men of the Field Hospital. Help was sent back from Limbraga, a distance of 100 miles, as soon as news of the accident reached us. The severity of the wounds is shown by the fact that it was found necessary to ligate the common carotid artery in one case, the femoral in another, and the subclavian in a third case that day.

Most of the cases did extremely well, there being very little sepsis. For the next month Field Hospital No. 331 maintained two units, one at Custoza, and one at Limbraga, 100 miles apart, the only practical communication being over the road by automobile. By October 9, all cases had been evacuated from Custoza to Genoa or Vicenza, and the two Field Hospital units were reunited at Limbraga, the remaining battalions having gone up to the Piave.

At Limbraga the hospital was housed in well-equipped modern buildings which before the war were used as a hospital for the insane. Two Italian Field Hospitals occupied adjoining buildings under the direction of Major Morelli, of the Italian Army. One of these was devoted exclusively to wounds of the chest. Most cordial relations were established between the Italian and American medical officers, a joint mess was formed, and many lasting friendships made. We especially appreciated the opportunity of studying the ingenious and original method of treating wounds of the lung by artificial pneumothorax, as practised by Morelli.

A few miles north of us, at Carita, was a splendidly equipped advanced operating center of the British Expeditionary Force. This hospital worked under great pressure during the crossing of the Piave by the 10th Army. There was a British Aviation Field within half a mile of our hospital, and later several Austrian prisoner camps were established in our immediate vicinity. The ancient and picturesque city of Treviso was within easy walking distance, and was a center of supplies. This city was persistently bombed by Austrian aviators, and much of it was badly wrecked, rather more so than Nancy, though it differed strikingly from the latter in

that it had been practically deserted by the civilian inhabitants, though swarming with soldiers.

On the night of October 24 we were aware that the long-awaited big offensive was on. A heavy barrage which made the doors and windows of the *Manicomio* rattle continuously all night, and a bright glow in the eastern sky which lighted up the vicinity of the Piave and the jagged Alps beyond with vivid flashes, told very plainly what was happening. Occasionally a big Austrian shell whistled overhead like an express train.

Our battle casualties at Limbraga were comparatively light. The American regiment formed part of an Italian Division, which in turn was a part of the 10th Army under command of the British General, Earl Cavan. This army played a conspicuous part in the battle of Vittorio-Veneto, but the Americans were not actively engaged in its early stages. They took part in the advance into Austrian territory, and came into action on the Tagliamento on the final day of hostilities. On November 12, the day after the armistice, we received eight soldiers who had been wounded early on the previous day. These men showed a most striking similarity in the location and nature of their wounds; all perforating wounds of the hip, received while crossing the Tagliamento on bridge stringers under machine-gun fire. All did well. The regiment pushed on to Udine and beyond, and a section of the Field Hospital was established in that city. A small number of wounded were picked up here, but from this time on our war surgery was about over. Soon after, the resources of the Field Hospital were taxed to the limit with cases of influenza and pneumonia, but in this work the surgical team played no part.

By December 9, our surgical cases were reduced to fourteen convalescents, who were being held for return to duty with the regiment. Lieutenant Colonel Davis and Major Irving were granted a seven days' leave in Italy, and on this, the first leave for either of them in the A. E. F., they explored Florence, Rome, and Naples. It was a memorable trip. The glories of Italian art and landscape made an appeal to the mind which was only second to the more corporeal enjoyments of soft beds, clean sheets, menus, and personal independence. Sergeant Wilkinson was later granted leave to England.

On Christmas Day we enjoyed a fine dinner at Limbraga,



CHATEAU DE BREIUL
The Nurses' Quarters



READY FOR NURSES' THANKSGIVING DINNER AT BORDEAUX, 1917



THE RED CROSS HUT

U. S. Official



CHURCH SERVICE ON THE VERANDA OF THE LYCÉE

superintended by our unequaled linguist, cook, and poet, Captain Sargentish. We were now merely marking time in Italy, eagerly awaiting orders to return to our Base in France. It was evident that there was no further need of our team with the Field Hospital. We had but five operations on three patients during the entire month of December.

The American expedition to Italy, though of insignificant importance from a military standpoint, had undoubtedly accomplished the purpose for which it had been sent. It was a visible example to the Italians of sympathy and coöperation in their cause and aspirations, and of allied unity of aims. The participation of American troops in the Italian campaign was magnified for purposes of propaganda both at home and among the enemy, and doubtless had some effect on the Austrians. Members of our surgical team may at times have felt that they were accomplishing very little in Italy, but that they performed well the work set out for them to do, we have been assured by those competent to judge.

To Major (later Lieutenant Colonel) Van Ingen the team is very grateful for a most cordial reception, and ever ready and generous coöperation.

While in Italy the head of the team was promoted to the grade of Lieutenant Colonel on November 11, Corporal Wilkinson was promoted to Sergeant, and Private Gardner to Corporal. Captain Irving was later promoted to Major.

The experience in Italy was a most valuable one for the higher medical officers, as unusual opportunities were extended for observing the workings of the Medical Department of the Italian Army from front line to base, also for observing the medical organizations of the French and British Expeditionary Forces.

Early in January orders began to come for the return of individual members of the team to France. By the middle of the month all were back at Talence after an absence of more than ten momentous months, glad to greet again their comrades of Base Hospital No. 6.

SURGICAL TEAM NO. 2

ANNIE M. ROBERTSON AND MAUDE G. BARTON

ENTHUSIASTIC Surgical Team No. 2 started out on its varied career one cold morning in compliance with telegraphic instructions from the Adjutant General, S. O. S., and during the entire period from April 10 to November 18, 1918, did not once return to its Alma Mater, Base Hospital No. 6, at Bordeaux.

Capt. Beth Vincent was in charge of the team, assisted by 1st Lieut. DeWitt Scoville Clark. Catharine A. Conrick was the anæsthetist, and Annie M. Robertson and Maude Barton were the nurses. The orderlies were Privates 1st cl. Joseph E. Coleman and Martin L. Sullivan. Their equipment, besides individual bedding rolls and hand baggage, consisted of a box of surgical supplies, smaller than a steamer trunk, containing army instruments, gloves, and operating gowns.

With no further knowledge than that they were to present themselves and their orders at Creil, Oise, "without delay," they proceeded by way of Paris to their destination. This, however, proved to be a mere junction in their travels. Further instructions to continue on to Royalieu being received by telephone, they left this battered military city of Creil by troop train, crowding out from one compartment a group of tired French soldiers going again to the front after an all too brief "*repos*" back of the lines. Even at this distance could be heard the steady booming of guns, growing louder as the train drew into Compiègne, the nearest station to Royalieu. Again, after telephoning for transportation and a long wait, an energetic American V. A. D. who was attached to Mrs. Daley's "*équipe*," who in turn was in charge of the nursing personnel of this hospital at Royalieu, dashed up in a Ford ambulance and conveyed the weary but still enthusiastic Team No. 2 to Ambulance Chirurgical Automobile No. 7; in brief, Auto-Chir. No. 7. This proved to be a French evacuation hospital attached to the 3d French Army. Its sixteen buildings, formerly artillery barracks, were long, one-story brick pavilions, with cement floors and a capacity for about sixty patients each. This group of wards was dismally located on a low, treeless field, just off the dusty flint

road, a continuously used highway between Paris and Compiègne.

The médecin-chef, Monsieur Lardenois, was most courteous, but had not expected this American Team, nor, consequently, had he made arrangements to house them. As the barracks at the hospital were all filled, an attractive home was finally allotted them in a neighboring château one mile away, the country home of the Mayor of Compiègne, and but recently employed as a hospital by the French Red Cross, who had been forced to evacuate three weeks previously.

In this large, modern French mansion, Team No. 2 made itself thoroughly at home. Being the first arrivals and having an unquestioned prerogative in a well-equipped establishment, it was easy to furnish rooms attractively and comfortably. The doctors took possession of the third floor, trying to decide which was the best room, while the nurses chose a corner room on the second floor. In front of the château was a wooden barrack which had been used by the previous possessors, and here the soldiers founded their headquarters.

The surroundings were beautiful and the housing conditions ideal. Other American surgical teams began to arrive from Base Hospitals Nos. 17, 28, 31, 32, and also an orthopedic team. There was ample room for everybody, and soon all were settled and seemed like one large family. For meals, two refugees living in the conciergerie prepared breakfast in the large basement kitchen, where each partook at his leisure of coffee, toast, jam, and even eggs and bacon, if supplies were plentiful; for luncheon and dinner it was necessary to walk down to the hospital, where all the Americans ate at a table supervised by Mrs. Daley, and served in the corridor of the nurses' pavilion. These were perilous meals, as quarters were narrow and the flurried French maid, nicknamed "*Tout de suite*," was ever in a hurry—hence soup did not always stay in its shallow tin dish, but often ruined some poor unfortunate's uniform.

Although there were not many wounded the first month, Team No. 2 was put on a regular schedule when they were required to be in the operating room. The hours as arranged were 7 A.M. to 12 M.; then 8 P.M. to 1 A.M.; 12 noon to 4 P.M.; 1 A.M. to 7 A.M.; 4 P.M. to 8, and so back to the beginning of the schedule, *ad infinitum*. When there was nothing to do it was rather awkward for the whole team to

wait in the operating room. Since there appeared to be no other place conveniently adapted to this purpose, a scheme was devised, namely, that one of the soldiers be left on duty within call of the operating room, enabling the rest of the team to remain at the château until summoned for duty. In order to test the American surgeon's skill in operating, a few patients were allotted Captain Vincent, during this initial period with the French, prior to the expected activity. A ward was granted him for his post-operative cases, that he might attend to their dressings more conveniently, and the use of a surgical dressing cart was graciously conceded. The French differed in their method of dressing the wounded in that they took every case to a local *salle des pansements*, thereby causing added pain to the patient in transporting.

During these days of quiet before the storm, it was possible to visit many picturesque and historic places in and about Compiègne; as, for example, the Château at Pierrefonds, Napoleon's Palace and its grounds, the Compiègne forest, besides the attractive city of Compiègne itself, which was within a ten-minute walk of the American headquarters. At the Hotel Palace, opposite Napoleon's Palace, were living American Red Cross men and women who ran a canteen for the French soldiers and a dispensary for the deserted civilians, Miss Leonor A. Field, of Base Hospital No. 6, being in charge of the dispensary. There it was possible to buy a fairly respectable meal when food was scarce at the hospital and famine imminent.

The native population gradually increased up to the middle of May until times were almost normal in the city. Stores were crowded, restaurants flourished, the open market once more vended its wares. But again with increased hostilities the already intimidated civilian packed his household goods in any available vehicle and trudged the weary road to safety, while his deserted home served as a target for the deadly shell and became a yawning hole.

On May 28, Team No. 2 began to work in earnest, as did everybody else, according to schedule, until June 8. During this time 10,600 wounded were passed through the "*triage*" of the hospital; in one forty-eight hours 5,400 went through, being evacuated as soon as treated. Only severely wounded were operated; and the number of operations averaged 200 a day. Even when there were long lines of ambulances

waiting to be relieved of their wounded, the teams kept absolutely to their schedule, and thus, having an even number of alternating teams, the operating room was kept at its maximum efficiency, as well as the working ability of the personnel.

The French system of operating was admirably adapted to just such an emergency. At no time did supplies fail, although economy was constantly urged. The stretcher-bearer and priest (combined as he frequently was) had the greatest burden to bear, both physically and mentally. The ambulance drivers were also going on sheer nerve for days.

During these days it seemed as though Compiègne were almost surrounded by battle. Fires from the continuous barrage at night lighted the sky in more than a sinister semi-circle, and by day there hung a foreboding observation balloon almost over the château. With a five-minute regularity the city was shelled almost every night, for hours at a time, with frequent bombs dropped here and there for variation from the menacing Boche planes overhead. Matters became so bad that all the Americans sent their bedding rolls to Paris, knowing well that when orders came to leave it would have to be done hastily, without regard for baggage. Finally, the road from Soissons being too badly shelled to transport wounded, operations at the hospital ceased, and all possible effort was made to evacuate the patients with expedition, by boat down the Oise to Creil, as well as by ambulance. Hence it was with slight surprise that the Americans received orders at 4.30, the afternoon of June 10, to proceed to Litz, near Clermont, at once. As shells were then landing in the fields on either side of the château and as there were no remaining wounded at the hospital, no one was unwilling to leave. However, only two camions were furnished for transportation, and all could not get in with hand baggage; therefore, two officers and a soldier were left behind to take their chances with *Auto-Chir. No. 7*. At eight that night the Germans deliberately bombed the hospital, but no one was wounded, although two pavilions were demolished. The Boche planes swooped down over the departing boats on the Oise River and peppered the last boat with *mitrailleuse*, knowing well it was full of wounded soldiers.

At Litz, the next stopping place, there proved to be a newly set up tent hospital including a hundred bed hospital supervised by Dr. Carrell, who was most cordial to Captain

Vincent and his team; there was also a gas hospital, with its specially trained personnel besides a general hospital. Each was a separate organization in a group under one *médecin-chef*, Monsieur le Médecin Inspecteur Bassères, Chef Supérieur du Service de Santé de l'Armée. Being literally refugees and neither expected nor needed, billets were obtained in the neighboring small village of La Neuville en Hez from the military commandant, who housed the doctors and nurses along the main street in French homes. The soldiers, after some difficulty, were allotted a tent at the hospital. There they remained *en repos* until ordered, June 30, to rejoin Auto-Chir. No. 7. Meanwhile this hospital had been reestablished at Agincourt, between Clermont and Creil, a former tuberculosis sanatorium, which proved to be a large, beautifully situated building on the edge of a bluff overlooking a fertile valley. Here again there was no work to do as a team, but the nurses did voluntary service on an orthopedic ward.

It can be truly said that the French evinced an affectionate regret at the departure of Team No. 2, July 11. They had proved their regard in many ways, one being by an elaborate banquet, July 4, with a band concert in the afternoon for the Americans. They had prophesied a still more grandiose affair on their own national holiday, the 14th of July; but all Americans were ordered away before this to join their own busy front. The entire French personnel accompanied them to the station, and mutually vowed eternal gratitude and friendship.

From now on all operative experiences were with American evacuation or mobile hospitals.

After a brief interlude in Paris, Team No. 2 reported for temporary duty, July 15, to Base Hospital No. 15, the strategic headquarters for all surgical teams, situated at Chaumont, and there awaited further orders. The following day, while operating, orders came to report to Evacuation Hospital No. 7 at Coulommiers, which they succeeded in doing at about four that afternoon. This hospital, with Mobile No. 1 attached, consisted of a group of tents around an old three-story stone house, the salon of which served for one of the operating rooms. With hardly time for each to find his dwelling place, the personnel was ordered to report on duty, and subsequently operated all night.

The difference between the French and American system of operating was marked, and the nurses were busy trying

to learn the American methods, which proved to differ in each hospital. This American system required the teams to furnish everything they used from their own supply, namely, gloves, instruments, gowns, suture material; but they did consent under protest to make good anything lacking that was absolutely necessary for the exigencies of war surgery. One nurse was scrubbed up and remained sterile during the entire period of operating, keeping the surgeons supplied from a sterile stock table; while the other nurse washed and sterilized the instruments and gloves and kept supplies up, besides assisting with the bandaging of the patient. She was called the "dirty nurse," in contrast to the sterile nurse.

On the other hand, with the French the box of supplies brought from the base was not used or needed. Instruments were furnished, being supplied from a central sterilizing room in charge of a *poilu*, who on demand would put up a set of "*mou*" or "*dure*" instruments, according to whether the case was one of simple *débridement* or a bone operation. The surgeon helped himself from the platter of instruments placed conveniently near, and took his sterile sponges from a drum. The nurses were not scrubbed up. Ether was used for irrigation of the wounds during operation. Miss Conrick taught the French the technic of the Gwathmey machine, a mixture of oxygen and nitrous oxide being used as anæsthesia in cases of severe abdominal wounds.

It was a great contrast in style and comfort from the grand Château at Compiègne to an army cot in a busy "Y" tent for the doctors, a leaky, muddy tent back of the incinerator for the nurses, and pup tents for the soldiers. Also, for pure comfort, the mud and bees were in altogether too great abundance. There was no regular schedule of hours, all teams being put on duty whenever there was an oversupply of wounded, regardless of the fact that they had just completed fourteen hours of steady operating or were in sad need of sleep and rest. Efficiency was not considered. With a team to a table, there was great confusion, constant interference and unnecessary delay in getting the operated patient off the table and the next man under ether. For twenty-two hours Team No. 2 operated at one time steadily, with half an hour off for each meal. After thirteen days of such irregular long hours, orders came to proceed with Mobile No. 1 to join Evacuation No. 6 at Château-Thierry.

This hospital was situated at Thierry, near Château-Thierry, by the side of the road parallel to the Marne, in a field where there was no mud, but plenty of long, wet grass. Evacuation No. 6 was in the process of being erected, and it did not seem possible that at 7 P.M. thoroughly fatigued Team No. 2 would be operating again all night—but they were. At midnight a meal was most amusing, as somewhere in an unfamiliar field, under the dark open sky, was a table spread with supper; but *en route* the hazards of tent ropes and ditches were extremely perilous, and when finally achieved it was impossible to ascertain whether the utensils had been used before, or of what supper consisted. However, in spite of high hopes, hard tack and “corn willey” was all that could be found. Another difficulty was the frequency with which the electric lights went out on the mere approach of a Boche plane, making operating as well as etherizing most difficult when carried on by the dim light of a carefully shaded candle or flash light. This period of activity extended from August first to the thirteenth, at the end of which time Evacuation Hospital No. 6 ceased to function, pending a change of location to another sector of the front. On two occasions Surgical Team No. 2 was sent to U. S. Evacuation Hospital No. 3 for temporary duty of one night to relieve pressure at that point. They packed themselves and their box of instruments into an ambulance and drove about five miles down the road toward Dormans. During this period of inactivity, all had a chance to visit Belleau Wood, now called Woods of the Brigade de Marine, also the trenches on Hill 204, and the citadel of Château-Thierry itself, which was within half an hour’s walk of the hospital.

On August 19, the whole Evacuation Hospital pulled up stakes and embarked for La Ferté, by ambulance, where they were entrained that night for Châtenois (Vosges), near Neufchâteau. On arriving, the doctors and nurses were billeted throughout the French homes of the small town, while the enlisted personnel pitched tents beside the track, guarding the equipment and baggage left there. After resting here three days, another move was made by ambulance to Bazoilles, leaving the men with the equipment. Here, in a valley, had verily sprung up an American city consisting of hundreds of long wooden barracks, being an integral made up of many base hospitals.

At Base Hospital No. 46 from Portland, Ore., Evacuation Hospital No. 6, together with its satellitic teams, was royally entertained. After three days' rest at Bazoilles, ambulances were resumed early in the morning for an all-day journey to Souilly, about sixty miles northwest. *En route* a brief visit was made to the birthplace and memorial church of Jeanne d'Arc at Domremy. After a hasty luncheon at Bar le Duc the long, dusty ambulance train pulled into Souilly at five o'clock in the afternoon. On the side of a hill at a rail-head was an extensive French evacuation hospital of wooden barracks, most attractively decorated with flower beds and rustic walks between the pavilions. It had been used by the French since 1914.

Living quarters improved from tents to barracks, the officers had partitions marking off rooms, while the nurses were crowded, with thirty others, into a former warehouse of the French, and the soldiers had barracks with double bunks. The operating room facilities were excellent, about equal to those of a base or civilian hospital. There was steam heat, running water (shut off occasionally), electric lighting, and the usual adequate furnishings of an operating room, as well as convenient sterilizing, supply, splint, and X-ray rooms. The system of operating differed, in that all teams pooled their instruments, and from these a standard set was devised which was ever ready to be sterilized, after checking up to note any missing instruments at the beginning and end of the period of operating. This set was kept in circulation by the unsterile nurse, who washed and gave to the soldier in the sterilizing room the used instruments, so that when again sterile they could be added to the supply on the sterile nurse's stock table. Extra instruments could be had on demand from the nurse in charge of the supply room. The hours were a little different, and less wearing except after a continuous stretch of operating. They were 7 A.M. to 12 M., 7 P.M. to 7 A.M., 12 M. to 7 P.M., a night of sleep, then the same program repeated. With these hours it was impossible to really sleep more than every other night, as the doctors were occupied in visiting their post-operative cases, while the nurses were obliged to do all their own laundry, and moreover found it required almost super-human concentration even to attempt sleep during the day in their overpopulated quarters.

While at Souilly, the personnel of the team changed, as

Lieutenant Clark was placed in charge of a team of his own—No. 558. His position was filled by Lieut. Augustus C. Gray, M. C., of Maryland, who had been wounded while serving with the British. Captain Vincent was promoted to the rank of Major. There was a brief interim before the installation of Lieutenant Gray as a permanent fixture of Team No. 2, when Majors Patterson, Greenwood, and Edmunds served in the capacity of surgical assistants to Major Vincent, to be instructed by him in the surgery of the recently wounded.

Between periods of activity were opportunities for various forms of recreation. There were beautiful surrounding woods in which to walk. Verdun, ten miles north, was an historic place to explore: some walked there, while others took their chances on the passing traffic. Shopping expeditions to Bar le Duc, twenty-eight miles south, and the nearest town of any size, were necessary as well as interesting. There were numerous "Y" entertainments and dances in the large receiving room of the hospital, until the advent of an over supply of influenza patients, who usurped all available places.

October found the general health of the personnel of Team No. 2 considerably impaired, but they managed to struggle along in spite of this handicap. Miss Conrick, becoming quite ill with bronchopneumonia, was in the hospital for many weeks. The two soldiers were both unfortunate enough to become victims of influenza, Coleman being confined longer than Sullivan. With a steady inrush of wounded, necessitating continuous operating according to schedule, the remaining healthy members began to weaken and might have succumbed if a change had not appeared in the form of orders to proceed at once to Mobile Hospital No. 1, at Fromerville. Leaving Miss Conrick and Coleman in the hospital, and Lieutenant Clark with his own special team, the weary remainder of Team No. 2 reported October 22, at 5 o'clock in the afternoon, to Mobile No. 1 and were put at once on night duty, as had ever been the custom. The nurses, immediately on arrival, were outfitted with a huge pair of overshoes, with which to combat the mud, and a warm leather vest in order to forestall the then rampant pneumococcus.

Because of the steady advance of the army it was necessary to move still further north, for the object and duty of Mobile No. 1 was to receive non-transportable cases only, and so it must constantly be as near the seat of action as

possible. It was incredible that in so short a space of time an active hospital, in full operation, could be evacuated, packed up, moved north ten miles, set up, and ready for wounded all in a little more than a day. Each individual was responsible for the packing and unpacking of his own belongings, including bed and bedding, as well as that particular section of the hospital under his charge. Mobile No. 1 was equipped with large *basseneau* tents, sheltering, in all, 300 patients, with folding iron beds set up on the ground. There was one automobile sterilizing room with a large steel drum four feet in diameter; three tanks, one for hot water, one for cold sterile water, and one for distilled water; one autoclave to sterilize ointments; laboratory equipment; and two boilers for instruments. This mobile room was attached to a collapsible operating hut consisting of a steam heated operating room, an x-ray room, and a supply room. The power and electric light were furnished from another automobile with adequate engines to supply the demand. This Mobile Unit, chiefly from Council Bluffs, Iowa, was most efficiently commanded by Col. Donald MacCrae, Jr., and was awarded a *croix de guerre* by the French Government and also cited for its activities behind the Château-Thierry, St. Mihiel, and Argonne-Meuse fronts. In fact, all of the organizations, Auto-Chir. No. 7, Evacuation Hospitals Nos. 6 and 7, as well as Mobile No. 1, to which Surgical Team No. 2 was attached during its seven months of services in the Zone of Advance, received citations for their work during these same activities.

For three days Team No. 2, but minus two members, operated at Esnes in the Argonne, truly situated in No Man's Land, surrounded by low rolling hillocks as far as the eye could reach, with Dead Man's Hill in front and Hill 304 nearby, where over 35,000 French gave up their lives in 1916 in defence of Verdun. The ground was unmercifully pitted with shell holes and burrowed with dug-outs. It was a dreary reminder of all that had occurred there. Added to this naturally gloomy situation was the prospect that the hospital was a bright and shining target on an otherwise carefully camouflaged landscape. It was moreover set up next to a large supply of American gas bombs—the coveted goal of the nightly Boche planes. Halloween was a veritable night of horrors, weird enough to satisfy the most mischievous of youths. During these air raids it was only with the greatest caution that a light could be used to continue an operation,

and then only in case of absolute necessity. At these times there was double danger, not only of being hit by a bomb, but also of being severely gassed by American gas, because if by chance the Germans succeeded in their plans of destroying this station of bombs, it would take only seven seconds for the deadly fumes to reach the hospital. Work, however, never ceased nor was the routine interrupted. A few of the officers established their sleeping quarters in neighboring dug-outs, preferring greater safety to the flimsy, conspicuous comfort of the marquis tent.

The wounded, not able to endure further journey, were frequently in shock and had severe multiple wounds. Because of the great extent of operation necessary, two or more teams would work over one patient at the same time, thus minimizing the time spent under ether as well as on the operating table. There was an excellent spirit of coöperation.

Orders arrived, November 3, for Team No. 2 to return to Evacuation No. 6, and after a midnight ride of about twenty miles through the rain and mud, in the pitch dark, with no lights, the former destination was achieved. Once more the ranks were complete, as Miss Conrick and Coleman resumed their places, and work continued in spite of growing rumors of peace.

It was hard to believe the report true that an armistice had been signed on the eleventh, but there were no more sounds of battle and there was a cessation of the former steady flow of wounded, so the actual facts upheld the report. Accordingly there was great rejoicing and a natural curiosity—What next?

Orders promptly came to proceed to Base Hospital No. 15, at Chaumont, without delay (the unavoidable delay of French travel being legitimate). There was great speculation as to just what sort of a future awaited them there. Of course, it was the ambition of all Americans to get into Germany, to go to Coblenz with the Army of Occupation. Also they knew there was need of surgical teams in Italy with the American Army. However, no such romantic adventures lay before Team No. 2. Battle worn and weary with a total of 759 operated cases to their credit, they were sent back, November 16, to the Base at Bordeaux intact as they had left it, on this tour of duty, April 10, 1918, only to be there scattered and absorbed into the busy activities of a greatly enlarged Base Hospital—their mission accomplished.

THE SCHEME OF THE SPECIAL TRAINING
BATTALION AS WORKED OUT AT
HARCHÉCHAMP, VOSGES, FRANCE

Z. B. ADAMS

THE camp was organized at the suggestion of Col. Joel E. Goldthwait for the treatment of men with impaired function; the men who had become physically incapacitated. They had broken down in one way or another and had been unable to perform their work as soldiers in the 26th Division, and physical defects had developed or had been accentuated since entering the army, although perhaps many of them had been able to conduct their work in civil life without much or any annoyance.

In some instances the cause of the man's breakdown was not definite, in others, it was a combination of different elements, such as mechanical strain, accident, change of living conditions, carrying heavy burdens, fatigue, mental depression, discouragement, loneliness, and homesickness. Each man was a problem. The malingerer and slacker were among those sent to the camp, but a large number of them represented men of insufficient muscular development.

About seven miles northeast of Neufchâteau, in the Department of the Vosges, in the valley of the Vair River, surrounded by abrupt hills, are two small villages, Harchéchamp and Basville. One of the truly lovely restful parts of France, although but a short distance from the Nancy road, and so near the front that the distant thunder of the guns could be heard on a still night, yet the little villages with their mediæval châteaux lay undisturbed. Here the special Training Battalion was established. The first company was lodged in an old flour-mill across the river from Harchéchamp. There were billets for about 250 men in this old stone structure, with its adjoining stables and houses which had fluted tile roofs nestling against the steep hillsides which rise from the old stone bridge and mill-dam.

The second company was quartered at the little village of Basville, which covered the hill about a half-mile up stream from the mill-dam. The men were billeted in the pretty two-story stone houses and stables of this hamlet. There

was space for 300 men with their kitchens and equipment, making a complete separate unit.

Broad fields and the Vair River separated this village from Harchéchamp, and an old church and a monument, surrounded by cedars, united the two villages in a sacred union. As the spring opened, nothing could be more lovely than these fields with the plowmen and high soaring skylarks. Harchéchamp, the larger of the two villages, stretched along the river bank just under the steep hill crowned by the battlement walls, surrounding the two very old châteaux which served for the officers' billets.

Here, the two upper companies were billeted and battalion headquarters were established. This upland and lowland, with its woodlands and open commons and pastures, provided an abundant opportunity for squad and company maneuvers in all weathers and in every condition of climate.

The men were so far away from any large town or village that they had few temptations. They had to be treated in large numbers, grouped as far as possible, and their ailments treated in such groups. Many of them had already tried to be soldiers, but had failed. Perhaps this failure was due to the fact that their former instructors had been poor or careless in their management, but those who have had experience know that men do break down when put through hard campaigns even when they are carefully handled and cared for, and that this is especially true when the men are new at the business.

An anatomical examination of the joints shows that they are mechanically designed to work in a certain way. An inspection of the habits of walking and carriage which many of the men who entered this camp had developed, showed that they were using their joints and muscles in a very different way from that in which their joints were designed, constructed, and arranged to work, but this change may have been due to improper clothing and shoeing, physical weakness, or the intentional assumption of some special gait or habit of carriage, contractures of tissue after wounds, or various other similar conditions. Having determined the physical defects or habits of each individual entering the camp, treatment was established to correct the defect or defects, and to develop the restoration of proper function. The work at the camp was planned, (1) to remove the cause or causes of the defects, if the cause still existed; (2) to correct the deformity which had resulted;

(3) to teach the proper use of the joints and muscles of the body; (4) to increase the muscular strength so that they could not only get themselves around the camp and through the day's work, but be able to carry the additional weight of the soldier's equipment. The treatment was planned in the above sequence.

The mechanism of the body may, in a way, be compared to a machine. It develops more power, runs smoother, wears longer, if properly taken care of, than if it is improperly used and neglected. The men sent to the camp were those who had broken down and were not in their normal physical strength and fitness for army duty. They simply swelled the morning sick call and could not be of any use, so that in many instances they were considered by their commanders to be chronic slackers.

These men could not be made well by slapping a rifle into their hands and a pack on their backs, and marching them as far as they could be made to go in the time they had. Some of them might have stood this treatment, but some would not, and by so treating them, irreparable harm might well have been done. In other words, you could not cure them by an overdose of the medicine that had already poisoned them. The conditions had to be changed, and their tolerance gradually developed. All the training at the camp had to be carefully planned and thoroughly carried out. Accuracy and precision had to be practised by both the officers and the men.

The patients, as they arrived at the camp, were very imperfect specimens of manhood, and certainly a most discouraging lot at first sight. There is an old saying "you cannot make a silk purse out of a sow's ear." This is true, but we had to learn to make the sow's ear into the best pig skin purse, and a pig skin purse is often better for a soldier's wear than a silk one. This transformation was accomplished with a large portion of men received. Something like eighty per cent, it was found, could be made into useful material. A large proportion were returned to their organizations as fit combat men.

The Receiving Company was quartered in the old mill. The green level pastures, surrounded by large poplars which lay between the mill and winding river, furnished a capital small drill ground for these weak, lame men during the winter. All drill and exercise was in the open air, whatever the

weather, and when the spring freshets came, this company had its drill on the high common land above and behind the old mill. Both of these drill fields were of easy access without marching. While in this company the men were thoroughly examined, their defects noted, and a classification made.

A card the size and shape of the Army Service record was filled out in duplicate; it contained the name and number; rank, organization, age, and the date and source of admission to the battalion and to the army. Silhouettes were taken of the body trunk in profile. This was a very quick and simple method of recording posture. The personal history was recorded in brief, and, in the physical examination, especial note was made of the teeth, ears, back, feet, defects in posture, and method of using the feet. Treatment was prescribed.

The feet were carefully measured, and then the shoes fitted over two pairs of heavy socks, always giving ample room over the foot and at the toe. These shoes had the heels raised on the front inside corner to throw the weight on the outside of the foot. All the men were shod in this way unless there was definite reason for not doing so. No graphic records of the feet were made.

While in this Receiving Company "A" the men were graded as to their aptitude and capabilities. They were made to perform light police duty, and were given easy calisthenics and games, talks on the general principles of the training, etc., and demonstrations on the care of their shoes and other equipment. Each man was issued two pairs of field shoes of proper size, adjusted as prescribed to correct his balance and whatever other defects existed. Straps and simple cleats only were employed. When this had been done and their other equipment completed, if their physical condition had sufficiently improved they were entered on the roll of Company "A," and began their active training.

The general principles of the training were in brief: *For the Feet*—the men were taught that the foot and leg are muscular members of the body, to be used in locomotion. The foot is not a flipper. The triple exercise was taught to strengthen the leg and foot muscles after correction by stretching of any existing deformity. In all marching and walking the men were instructed to toe straight ahead and bend the knee out, carrying the weight over the small toes. The weight to be kept on the outer side of the foot at all times in marching



INTERIOR OF NURSES' MESS HALL

U. S. Official



EXTERIOR OF NURSES' MESS HALL



AMERICAN GRAVES IN FRENCH CEMETERY AT TALENCE



GRAVE OF LUCY N. FLETCHER

and standing either at attention or at ease. *For the Backs*—the system comprised stretching of shoulders over a roll. The exercise of straight leg raising and trunk raising to strengthen the anterior abdominal wall; the men stood with a nearly flat back, hips very slightly back, abdomen held up, chin in. The position of attention is an easy, alert posture with knees straight, not in hyperextension, the weight equally distributed on the front and heel of the foot. In this position the man is in a little the posture taken when he prepares to jump, and is ready for the command.

The whole camp had a general program, and each company had a special program of its day's routine, the work in each succeeding company being made progressively harder and more continuous, with shorter periods of rest.

A complete military organization was found to be necessary in order to establish and maintain discipline, without which nothing could have been accomplished in the training of these men.

Once each week the Chief Orthopedic Surgeon selected the men who seemed fit for promotion. These men were inspected in standing and marching, and their records for persistent work during the week considered. Silhouettes were again taken to record improvement in posture. A list of these men thus selected for promotion was turned over to the company commander. He in turn considered the duty record of each and sent a list of the eligible men to the Battalion Headquarters. Special orders of transfer were then ordered for the men selected, and the day of the transfer designated, when all the men moved at once. Orthopedic and camp record cards were sent forward at the time of transfer.

The medical organization was as follows:

The duties of each Orthopedic Surgeon were comprised of the following: The Company sick call at 7.30 A.M., treating all light ailments; all men with a temperature or any severe symptoms were immediately sent to the Camp Surgeon, accompanied by a Sergeant. By this method the morning sick call was immediately reduced in size and the men promptly treated and returned to duty.

No men were confined to their billets. If suffering from slight surgical or medical maladies which really prevented their taking part in the active training, they were given a day of kitchen police or other light duty. Every one worked

unless really sick, and if sick, was sent immediately to the hospital. No man was sent to the hospital without a thorough physical examination and a consultation with the orthopedic chief if the diagnosis was not clear. In this way the men suffering from the symptoms of visceral ptosis, not understood without a thorough physical search into the relations of posture to digestive and general symptoms, were detected.

At drill call, assembly, 8 A.M., the Orthopedic Lieutenants joined their companies and continued with them on the drill field during the entire morning until dismissal at 12 M. Their function was to correct the errors in marching and statics, insisting that the correct standing position be maintained at all times, whether marching or at ease, whether in ranks or out. They had to be constantly on the job, encouraging, explaining, demonstrating to the men what was expected of them.

The Orthopedic Lieutenants gave talks to the men during the periods of rest between drill and other maneuvers on such subjects as the care of the shoes and feet, the proper position of the body in marching, proper use of the feet, hygiene in the trenches, the fundamental purposes of the training camp.

In the afternoon they took on the instruction at bunk fatigue. Here the men were in their quarters with their shoes and stockings off, doing the only special curative exercises included in the whole curriculum. These exercises were reduced to the very simplest possible terms. The triple exercises, *i.e.*: (1) Plantar flexion of the toes held straight, foot extended. (2) Hold this, only twist foot in. (3) Hold (1) and (2) and pull into dorsal flexion, to strengthen the leg muscles, and the straight leg raising, for trunk and abdominal muscles. These exercises, coupled with certain very simple stretching maneuvers, taken by the man himself either with his hands or by standing on the edge of the bunk, were all the special treatment given. All other training was given in large groups.

When the company went to drill in the afternoon or on a hike, the Orthopedic Surgeon accompanied them as in the morning. He coached them in marching as to back position and the use of their feet, and treated any blisters, callosities, or strains. The duplicate record card was carried and frequent notes made on each man in the field.

Any alterations and repairs or changes in the shoe ad-

justments were ordered by the Orthopedic Lieutenant, and once a week he put each man in his charge through a rigid inspection as to the condition of his feet and shoes, noting improvement, seeing that the heels were tilted enough and in good condition, making sure the shoes were a proper fit. The men wore two pairs of socks all the time, and only the shoes fitted at the camp—no others at any time.

This same officer coached the men in their play, attempting with the sanitary officer to find games that all the men would take an active part in. The men were trained to run and jump in good form, no attempt being made to coach the good jumpers, but to increase the skill of the poor ones.

Three evenings each week the chief orthopedic officer gave the junior officers instruction upon conditions occurring among the troops, special emphasis being laid upon the methods of treatment to be followed in the army.

Immediately after the evening mess, a general officers' meeting was held at which all matters of interest and importance relative to the general camp management were announced, and reports and orders to officers given. The commanding officer thus made it possible for the medical officers to collaborate with the officers of the line in all matters pertaining to treatment and military instruction and discipline.

The men advanced from Company "A," stationed in the old mill, to Company "B," in the village of Basville. The routine of that company demanded greater endurance; there were longer periods of drill and games, and shorter and fewer periods of rest.

The transfer from Company "A" at the mill to Company "B" at Basville, was made to clearly mark an advancement. In this sort of training it was considered necessary not only carefully to grade it, but also to encourage the men by a clearly defined progress, separating the grades from one another as definitely as possible.

In Company "A" they marched without the rifle, and had no hikes, but they were taught the care and nomenclature of the piece, and how to aim and fire, while in Company "B" they carried their rifles during the morning, but had no equipment of any kind on the hike during the afternoon.

With the improvement in their physical condition came a marked improvement in their mental condition. The army furnished abundant rations, the Y. M. C. A. gave a worker.

But the real reason for the improvement in mental spirits was due to the return of self-confidence. All of these men had come overseas in an organization containing companions from home. Being physically unable to perform their duties, tired, half-sick, from an overwhelming physical strain, they had first been consigned to kitchen police duty, and then been sent to a hospital or more directly to the special Training Battalion. When after proper treatment, shoeing and training, these men found that they could march again, take long hikes, and later hike and carry full equipment, it is not unnatural that their spirits improved and that we heard war-whoops of joy when they left our camp to return to their organizations.

From Company "B," at Basville, the men who had proved their fitness to perform the drill required, who showed good form at the Saturday inspection, and who could go through the exercises required of them at the examination, *i.e.*, a demonstration of their foot exercises, were transferred to Company "L" billet, in the town of Harchéchamp. For this company the program was made still more exacting. They began to be more like soldiers of the line, but they were given two ten-minute rest periods in the morning's program, and one half-hour lecture period. In the afternoon they took a long hike three days in the week, and a short one followed by some active games on two days.

In Company "M," into which they next progressed, after a similar examination, and which was also billeted in Harchéchamp, the work became still more constant and strenuous. Cassidy, the Scotch bayonet sergeant, put them through a course of calisthenics followed by Butts' Manual, lasting an hour, only allowing them short breathing spaces. This work was most excellent, snappy, and active. The Orthopedic Surgeon was constantly watching their position. Then there was a real rest of ten minutes, followed by a bayonet drill of the most active sort, lasting an hour. The men took a great interest in this bayonet work, and finally we were able to develop great agility, quickness, and good form. After another ten-minute rest period the morning program was brought to an end by an hour of company and squad drill and the school of the soldier.

From one o'clock to one-thirty, this company took foot exercises in their bunks with shoes and stockings off. At two o'clock they fell in with full pack and equipment for

the afternoon hike of two hours. Accompanied by their officers and the Orthopedic Surgeon, they marched for two hours with one ten-minute rest at the end of the first hour, taking many of the hills at double time, and marching down. It was interesting to watch the increase of strength and endurance. Looking at the men as they joined the Battalion, and then at these huskies four or five weeks later was certainly most encouraging. The silhouettes taken of a man as he entered, and as he progressed from company to company, showed in a very graphic way how he learned the proper standing posture and improved his carriage, how the round shoulders and hollow backs were made to disappear.

In comparing our methods of training with the very similar training given by the French in reclaiming the "*Inapt*," the most striking difference lay in the fact that the French paid but little attention to how the man held his body and used his limbs and feet, provided he got through the exercise and the day's work. If the soldier was flat-footed, knock-kneed, and hollow-backed, he stayed so. No shoe adjustments or special exercises to correct faulty posture were given. They, however, made a great point of heliotherapy. Their men were dressed in running trunks, sleeveless shirts, and light canvas tennis shoes.

Between January 1 and March 20, 1918, while at Harché-champ, the Special Training Battalion received about six hundred and eighty non-commissioned officers and men. From this number most of the camp personnel was recruited. One hundred and fifty men passed through the complete course of training, and were returned to their organization. They were fit when they left this Training Battalion, but how long they remained fit, I have no figures to show. One hundred men who did not advance rapidly, or were otherwise unfit, were sent to Versailles to start the spring gardens for the army. It was found necessary to investigate every man who stayed longer than four weeks in any one company. In this way were eliminated those who could best be used for other work. Twenty men unable to qualify as soldiers, and who had had experience in driving motors, were transferred to the Motor Transport Service.

The last of March, the 350 men still in training were returned to their commands, and the Special Training Battalion, with a small permanent personnel, was transferred to the area

of the 41st Division, which had its headquarters at St. Aignon-Noyers, Loire et Chere.

One fact brought out by this work was the large number of men to be found in civil life who have been physically neglected during their years of development. Many of the men had given their teeth little or no care. In many, the breathing was obstructed, or had been obstructed by tonsils or adenoids. They were Bible-backed with poor muscular development. One common defect was the deformed feet. They had been allowed to cramp their feet and toes in too small shoes until normal locomotion had become impossible. They did not walk—they hobbled. When they were shod in army shoes, they had such weak ligaments and muscles that their feet were used as flippers or fins. As to marching with a pack, that was quite out of the question. They had to be taught to bring back their muscles and then train themselves to walk properly.

EDITOR'S NOTE: After the completion of his duty with the Special Training Battalion, Captain Adams returned to Base Hospital No. 6 for a short time, but was soon detached again to become Orthopedic Consultant for Base Section No. 2, and during the remainder of his service in the A. E. F. was stationed at Base Hospital No. 114 at Beau Desert. This hospital, originally organized as an orthopedic unit, was one of a large group, and under the stress of war conditions became a general hospital, though it still continued to do a large amount of orthopedic work.

DERMATOLOGICAL EXPERIENCES

E. LAWRENCE OLIVER

ALTHOUGH my short tour of duty at the British Front in October, 1917, was most interesting and instructive, my experiences while there did not materially differ from those of many of our officers. One day, however, stands out very clearly in my memory. After Captain Leland and I had spent one week together at Casualty Clearing Station No. 20, where we were treated with the utmost consideration by the British officers, we were separated by orders sending us to different nearby stations. On the day to which I have referred, Captain Leland's Commanding Officer invited him on an all-day trip, and I was kindly included in the invitation. Along the road leading through Bapaume to Peronne the innumerable graves for many miles on both sides of the highway gave mute evidence of the fierce fighting which had taken place in this region.

Arrived at Peronne, we entered a restaurant occupying one of the few buildings left standing, this one having been spared by the Germans perhaps on account of its excellent wine cellar, of which they had made use during their occupation of the city, and for which they thought they might have use again. Here we had an excellent luncheon. Sitting at a nearby table was a man in the uniform of a British officer. The Colonel engaged him in conversation and, after asking him many questions about his previous campaign experiences, we left. We were no sooner outside the door when the Colonel said, "That fellow is a Boche." We all felt this was very likely true, but the subject was soon dropped and nothing further was said or done as far as we were aware.

About the middle of December, 1917, Captain Mook (later Lieutenant Colonel Mook) and I received orders to go to Paris for special duty. As I was then a patient in the Officers' Ward at Base Hospital No. 6, and therefore unable to proceed to Paris, I was fearful that I would lose the opportunity, but fortunately I recovered in time.

On my arrival in Paris, I was met by Captain Mook and Col. Hugh Young, who outlined the work we were to do, Colonel Young adding the remark, "You must work day and

night." Feeling weak and very low in health, the words sounded ominous.

Our work was to write a Dermatological Section for "The Manual of Military Urology," which was to be published by the American Red Cross. We started in at once, spending most of the first day in the library of l'Hôpital St. Louis, which was far from comfortable, the library being entirely unheated owing to the shortage of coal, but the French dermatologists, whose aid we sought, were not only most cordial, but willing to help us in any way possible, and much of our time was spent with the great French dermatologists, Professor Sabouraud and Colonel Darier, whose advice was invaluable to us. Colonel Darier was even kind enough to invite us to dine at his house several times, occasions which we greatly enjoyed.

An incident at one of these dinners is perhaps worth recording. Although Captain Mook was only a few years younger than I, he had a slim, youthful appearance which most of us will readily recall, so possibly it was no wonder that a young French girl sitting next to him asked him, in a voice audible to all, if I were his father. Captain Mook was much flattered, while Colonel Darier was convulsed with laughter, and thereafter insisted on calling me papa.

About February 1, 1918, our work finished and accepted, and this fact duly reported through military channels, we expected further orders of some sort. We therefore reported each morning at rue St. Anne, but day after day and week after week no orders arrived, so that we began to feel that we were looked on as suspicious characters. However, we had found many friends in Paris, so the time did not hang heavily on our hands. Finally, after nearly four weeks of waiting, our orders came, and we left Paris with many happy memories of work, play, and friendships never to be forgotten.

THE RED CROSS DISPENSARY AT PARIS

WADE WRIGHT

IN November, 1917, Maj. Richard C. Cabot was detailed from Bordeaux to the American Red Cross, Paris, and shortly afterward, Lieut. Wade Wright, and a group of Base No. 6 nurses, Maude G. Barton, Bernadette Cormier, Gertrude V. Eastman, Leonor A. Field, Margaret G. Reilly, were also assigned to temporary duty with the Red Cross. Their job was medical work with the Bureau of Refugees, then endeavoring to furnish dispensary service to the Belgian and French refugees who had strayed into Paris from the invaded or devastated departments of the North.

They took over a small dispensary which had been established by Mrs. Edith Wharton, at 12 rue Boissy d'Anglas, secured more doctors, both French and American, enlisted French volunteer aids and American Red Cross personnel, and settled down to the conduct of a French clinic with American methods, from clinic secretaries to Miss Reilly's visiting skin service. The records were kept in French, A. E. F., and pure Parisian. Diagnoses ranged from "*points de poitrine*" to fear psychoses and therapeutics, from camomile tea and the ventouse to a pat on the back.

From a beginning of ten visits three times a week, the clinic grew, by the spring of 1918, to a hundred or more visits daily. In June it was moved to new quarters remodeled from the old Hotel Beauharnois, at 32 rue des Mathurins.

By that time casualties were rolling down to Bordeaux. Major Cabot had been recalled in February, and Lieutenant Wright was left in charge of the dispensary. With the spring drives on Paris, early in April, the latter managed to get to Compiègne, where there was said to be great need for emergency medical work among refugees and the few French civilians who remained on their farms.

Miss Field, with the aid of Capt. Henry Copley Greene, American Red Cross delegate to the Oise, established a visiting nursing service for the villages about Compiègne, with two dispensaries, one in Compiègne, and the other in Verberrie, about ten kilometers south.

June first, Miss Field was returned to the base, and

Lieutenant Wright arrived in Compiègne near June 8, in time to spend his evenings and part of the days in the best commended cellars, while the Boche bombed and shelled Compiègne and Royalieu, the French hospital four kilometers south, from which Captain Vincent and Lieutenant Clarke were ordered about the onset of the show. Some three days later, when most of the refugees had been evacuated, the Red Cross post was brought back to Verberrie.

A house was requisitioned in Senlis and turned into a temporary detention hospital for sick refugees. Then the French Army re-routed the refugee column and the Senlis project was abandoned.

So ended one of the innumerable skirmishes on the Paris sector.

THE RED CROSS DISPENSARY AT COMPIÈGNE

LEONOR A. FIELD

DURING the second advance of the Germans along the Montdidier-Soissons front, about February, 1918, when the refugees were being driven out of their homes, and crowded back toward Paris and the South, word came asking help for those left behind; old men and little children, and work-weary mothers, trying to keep together their homes in the face of the enemy fire, which was tearing away parts of the buildings or crumbling their stones into dust. One had only to be at the Gare du Nord when a train-load of refugees arrived, to realize to a slight extent, their distress, but far more clearly could one realize it by visiting their homes near the fighting front. Those who refused to leave must necessarily be given adequate medical relief, consequently, the Palace Hotel at Compiègne, which in a previous raid had been hurriedly deserted, was taken over by the Red Cross, and various lines of work were commenced. It was easy to see that the inmates of the hotel had fled in great haste, for everything was left wherever it happened to drop—even the private safe, with doors wide open, left the precious candles unguarded!

Maj. Robert Davis was the officer in charge. Capt. Henry Copley Greene was in command of the reconstruction work. A loyal band of English canteen workers was also in the field, and the medical work was given over to Lieut. Wade Wright, detailed to the Red Cross from Base No. 6. He collected the supplies necessary for a new dispensary, and established it in the only available space in the hotel. Thus was located the first dispensary for French civilian relief at the front. It was in a small, dark room with no windows, but with an outside door containing originally a glass square at the top, which had been shattered by a bomb, and replaced by a piece of oiled silk and a scrap of cloth. Overhead was a skylight, but unfortunately this had to be tightly covered with an old blanket and sack, so that not the slightest ray of candlelight might shine forth to aid the enemies' planes during the night. This room, a combination of medicine and supply closet, waiting room and treatment office, although

in itself inadequate, yet contained all the necessary equipment, and, being in the hotel, was centrally located. This, however, did not mean that the majority of our patients could easily reach the station. They were scattered far and wide, and it was usually those who lived too far away to come to us, or who were too ill to leave their homes, who needed us most; consequently the morning hours were kept for office work and the afternoons were spent in Captain Greene's Ford car, looking up the sick and those in need, to alleviate their sufferings.

The clinic and visits were well outlined and in running order the first week. Lieutenant Wright was recalled to "carry on" at the "*Dispensaire pour les Refugees à Paris*," and Dr. Hardy was sent down from Anelle until Dr. Whitlock came, a week later, to take up the regular work. About this time, we decided to move our Dispensary into the lodge directly across the street. This contained one large sunny room, formerly used for private parties, and as an amusement hall by the owner of the adjoining château. It had four large windows and two doors, one opening into the courtyard of the château and the other into an enclosed garden—neglected and weedy, but beautiful with purple and white lilacs and blossoming perennials. The room was divided by a curtain into two parts; one for a waiting room and the other for the treatments. It contained a piano, a huge fireplace and easy chairs, and was made comfortable and homelike with white dotted Swiss curtains at the windows, a writing table, pictures on the walls, and flowers everywhere, including little pots of growing pansies outside the windows. A large painted sign, the brave though humorous attempt of Captain Greene, proclaimed the existence of our combined efforts, and an American flag waved over us to mark the site of the dispensary and remind the French of our good will.

Our area for medical relief extended from Soissons to Clermont, a distance of eighty kilometers, as far south as Senlis and as far north as we could find families still braving the dangers of invasion. Our headquarters at Compiègne were about eighty kilometers from Paris and only eight or ten kilometers from the trenches. At the time when our Dispensary was started there was one doctor at Attichy, a small village north, whose radius of relief was limited owing to the lack of "essence" for his machine. There was also one physician at Verberrie, twenty-five kilometers south, an old

man who did his best, but was naturally unable to care for all who might be sick among his flock of 32,000 people. The French and American military hospitals could not of course be expected to aid extensively, so whatever work we could do for the civilians was pure gain.

Our first work of organization was to hold clinics on certain days at the *Mairies* in various towns; after that we started to establish small stations, outgrowths of the Compiègne mother dispensary. The first of these branches was organized at Verberrie and another was planned for Clermont. These foci we were especially eager to establish so that one doctor and one nurse might reach the greatest number of people possible.

There were two phases of the work at Compiègne both carried on with the heartiest coöperation of French and American officials, and both expanded under the leadership of men of high ideals and broad viewpoints; one was the purely professional medical relief, the other the raising of the general morale and the building up of a wonderful spirit of *camaraderie*. For this reason, to strengthen the bond of the two countries, a "*Club des Allies*" was formed at Compiègne, where, during its short existence, the more pleasant side of life was most heartily enjoyed. On Sundays, in Captain Greene's car, we went forth loaded with chocolate and cigarettes, as near the fighting lines as our driver would take us, where under the observation balloons we hung out the "Stars and Stripes," filled our helmets or "tin darbies," as one of the party called them, with American-made cigarettes, and waited for the long line in French blue uniforms to file by, in order to hand out two precious "fags" to each poilu. It was a pathetic sight to see long lines of camouflaged artillery winding slowly on toward the front, or to watch war-stained, mud-caked cavalry returning with only a third of their troops, but whether they were advancing men with the resolute look of *On ne passe pas* on their faces, or weary men slumping in their returning saddles—each had a glorious look of welcome and a smile of gladness one could never forget.

At night, if it were rainy and cloudy, we came home to the hotel to sleep undisturbed in our rooms, and we said, "What a glorious night!" but if the stars were out we knew that the Germans would try to visit Paris by air, and, if unsuccessful, would drop their bombs on us. We had our choice of begin-

ning the night in our own rooms, and at the first signal of alarm, grabbing a pillow and blanket and going down into the depths of the huge wine cellar to enjoy a cot beside stacks of cold musty bottles of age-old Burgundy or golden Chatreuse; or on the other hand, if we preferred we could carry our things and our little white candlestick across the square into the underground passages of Napoleon's Palace to sleep in an old *Poste de Secours*, a drier and more comfortable sleeping apartment, and free from scampering mice. Wherever we slept, we always had ready our helmets and box for first aid in case of a "bombing party," but the people were well trained, took few chances, and like us, on clear nights, slept in abries.

Our work, like many another interesting and worthwhile undertaking, was cut short. The Red Cross recalled the nurse, and before other arrangements could be made, the Germans advanced the third time and all Compiègne was officially evacuated—so our little Dispensary started, and grew, and died, bringing together earnest men and women who will never forget the joy and inspiration of working together for a big common cause.

A STUDY OF TRAUMATIC SHOCK

JOSEPH C. AUB

IN April, 1918, it was tentatively decided that Maj. James H. Means and I should be detached from duty at Base Hospital No. 6 in order to help in the study of traumatic shock at the front. The purpose of our investigation was to find out if possible the abnormalities involved in the metabolism of traumatic shock; to explain, if possible, the lowered temperature; of course, with the hope of improving the treatment of shock after these problems had been better studied and understood. However, it was not until September, 1918, that orders arrived for the transfer for the investigation. By that time, Major Means was well established in England, and was so busy that he could not get away for this assignment. As a result, orders for me only arrived, and so I started promptly to my new billet at Dijon.

I was attached to the Surgical Research Laboratory, under the command of Maj. Walter B. Cannon, Professor of Physiology at Harvard, who with Maj. Oswald Robertson, a graduate of the Massachusetts General Hospital, and Lieut. McKeen Cattell, both Harvard men, was working on the problem of traumatic shock and hemorrhage, and it was a great pleasure to join with them in studying these conditions. I found that the reason the transfer had been so long delayed was the inability to get apparatus assembled for the studies we were to make. Most of the material had to come from England and transportation was much delayed. As a result, upon my arrival at the laboratory, I found that much of the apparatus was not there, so a long delay resulted while the rest was accumulated. This involved two trips to Paris and much correspondence. While waiting for the various accessories, it seemed advisable to do some preliminary experiments, and as a result, some studies were made on cats, which gave an idea of the conditions that would be found in men at the front. The experiments were so satisfactory from the beginning, that it seemed probable that striking changes in metabolism would be found in wounded men, who were severely shocked.

By the middle of October, all apparatus was satisfactorily accumulated, and it seemed wise to start immediately for the front, because the rapid advance of the allies promised a speedy end of hostilities; and if anything was to come of the investigation, a prompt start had to be made. Therefore, Private Baumberger (a Harvard Ph.D.) and I started for Evacuation Hospital No. 4 at once in a tumbled-down Ford, which looked as though it could not go many miles before falling apart. We piled it full of laboratory equipment, and started off on a most beautiful drive from Dijon to Verdun. Evacuation Hospital No. 4 was supposed to be situated in good barracks with the shock wards warmly kept, and with as good conditions as possible for establishing a laboratory in the zone of the advance. However, on arriving at these barracks we found them empty, for Evacuation Hospital No. 4 had left the day before for a more advanced position.

We arrived at Fromerville, where the hospital had moved, and found it on a hillside in a sea of mud—the wards in tents, and the whole hospital in a more or less upset condition because of the sudden change of position. The staff was coöperative, and in a short time I had a little walled-off laboratory, made of sheets, in a corner of the shock ward. We lived in long abries, situated in the cellars or first floors of the bombarded houses, recently evacuated by the French, and I was strongly reminded of the situation at our hospital when we first arrived there. The advantage of the abries was that they were so dark one could not see the dirt. However, the hospital was located where it seemed probable that many severe cases of shock would be received, for it was eight kilometers from Verdun, and about ten kilometers from the front, north of Verdun. That front was very active, and patients were brought over very rough roads by ambulance.

We started to work to get our laboratory into condition for starting preliminary investigations at once. Several hours after arrival we were ready to begin work, but it was not until the next morning that the first severe case of shock was admitted. We started to study this case, found that the procedures we wished to use were neither annoying nor harmful to him, and were rapidly accumulating much of the evidence which we wanted to obtain, when about



THE NURSES TAKE A LITTLE RECREATION



FRENCH PAVILION WARD



WARD IN THE LYCÉE BUILDING

U. S. Official

eleven o'clock in the morning the Boche started to shell the hospital, and in no time, all our work was lost because the shelling became so strenuous that it was decided to evacuate all the patients immediately. Every one started carrying litters, and in a short time all the wounded were lying in the open, on the other side of the hill, and as fast as ambulances could be obtained they were being evacuated to another hospital. By afternoon there was not a patient left in Evacuation Hospital No. 4. Two of the personnel had been killed, and about six rather severely wounded. Orders were issued to get ready for departure to another location. The next day we spent packing our laboratory, and two days later we had to unpack again, for orders were received to stay where we were. By that time the Boche were retreating rapidly, and instead of being a few kilometers from the front we were nearly fifteen, or possibly twenty. Because of the distance we had not been receiving patients, and shock cases were now few and far between; so for the next two weeks much of my time was spent in trying to find suitable subjects, rather than in actual investigation. Then, just as the hospital was about to be transferred again to a more advanced position, news arrived of the probable signing of the armistice. We did not move, and no further cases were received. From the point of view of work accomplished, the advanced laboratory was not a success, but new experiences were very numerous, and the whole trip, from a personal point of view, one of extreme interest. The country nearby, Verdun, Malmaison, Le Mort Homme, Esnes, and other such places were striking sights. After the armistice we had some time, before receiving our orders to return to Dijon, to see many of the devastated villages and the surrounding country.

On November 20, we returned to Dijon, with, of course, the hope of being sent home promptly, but with the intention of working until that hope materialized. But then, as happened to so many, we were told that we were to be sent home immediately; so all our laboratory equipment was promptly packed up and sent on its way rejoicing. However, those of us in the laboratory received no orders to return home for over a month, and it was not until Christmas Day that we were transferred to Angers—homeward bound. After five weeks of inactivity, three more weeks were spent at Angers, with the only activity reporting at roll call

three times a day; then on to Bordeaux to the embarkation camp, just far enough away from Base Hospital No. 6 so that one could not get permission to go there to visit. Three weeks were spent there huddled about fires; no light to read by, few books to read, and general discontent with the world. Finally, after three months' waiting with nothing done, nothing seen, nothing accomplished, my orders arrived for escorting wounded soldiers back to the States. A casual officer, I started back on a ship which took twenty-one days to make the trip from Bordeaux to New York.

For three months I had been wishing to be back at Base Hospital No. 6 among friends, where associations would have been pleasant. In these three months of inactivity, if never before, I learned thoroughly to appreciate the good times, the satisfactory surroundings, and the bully associations that we enjoyed there. I suppose it was essential to move about and see other places before one could really appreciate the fact that, situated at Base Hospital No. 6, we were at least as fortunate as any one in the A. E. F.

ACTIVITIES OF THE SURGEON OF THE
WINCHESTER DISTRICT AND COMMANDER OF
BASE HOSPITAL NO. 204

W. JASON MIXTER

THE first eight months of my army service was as a member of Base Hospital No. 6. I will touch on this portion of it lightly, as doubtless the activities of that organization will be thoroughly covered in other communications in this book. During this time I served as a ward surgeon with special assignment for cranial cases, as survey officer in taking over buildings, equipment, etc., from the French, and later as registrar. There is little or nothing that requires special mention during this time.

In the spring of 1918, when our Commanding Officer was ordered to England, I requested transfer for duty with him. Shortly after his arrival at his new post, Captain Means and I received orders to go to England, and left almost immediately. It was with much regret that we broke the pleasant associations of many months to pick up new and unknown duties. The journey to England was slow and uninteresting. We were in Paris at the time of the bombardment of that city by the long-range German artillery, but neither of us knew anything about it.

On arrival at Winchester, I was shortly assigned to the Command of Camp Hospital No. 35, at Winchester Rest Camp on Morn Hill. The hospital was just in process of construction, and I spent a very busy month attempting to enlarge the installation and increase its efficiency. I was succeeded as Camp Surgeon and Commanding Officer by Capt. Malcolm Seymour, who carried out the work that I had barely begun, and brought this hospital to a real state of efficiency. On being relieved of this command, I was made District Surgeon of the Winchester District, a post made vacant when Colonel Washburn was transferred to London.

The Winchester District comprised three large rest camps and an aviation rest camp, with appropriate hospitals, a base hospital at Portsmouth, the projected base hospital at Sarisbury Court, a hospital at Hursley, and the

medical activities of the Embarkation Office at Southampton. The base hospitals at all times reported direct to London, so that I had little direct contact with them. Owing to the increasing number of American troops which were being poured through England to France, our capacity was strained to the limit almost all the time. The term "Rest Camp" was a misnomer, as troops seldom remained more than twenty-four to forty-eight hours; "Camp for transient troops," would have been a far better term. The duties of District Surgeon, comprising, as they did, a general oversight of medical activities in all these camps and at the Embarkation Office, were many and varied, but I was fortunate in obtaining the services of Capt. Frank F. Bowman as Assistant District Surgeon. We were building and enlarging the camp hospitals in every direction, reorganizing medical inspection at embarkation, and endeavoring to improve the conditions of American troops while in the camps. The troops were rationed by the British, and, though the ration was adequate and of good quality, it was not of the type agreeable to American appetites. For this reason, it was necessary to arrange with the British authorities to substitute green vegetables for certain other articles, notably cheese. There being no direct method of attacking this problem, it became the District Surgeon's job to interview numerous British officers of high rank, in an effort to bring about such a change. There were many such matters coming up which required a good deal of attention as well as the regular inspection of camps, medical and sanitary work. About this time we discovered also that there were numerous small groups of aviation troops scattered throughout the district, nominally under our medical control. Luckily these were later administered directly from London, thus relieving us of long jaunts by flivver to out-of-the-way corners of the district. During the summer the staff of the District Surgeon was enlarged, laboratories organized, and by the middle of August, a good working organization was handling the numerous medical activities in the Winchester District. A small but severe epidemic of typhoid fever caused us great perturbation, and started a flock of correspondence, both mail and telegraph, from Headquarters, Base Section No. 3, G. H. Q., and the Surgeon General's office at Washington. A considerable amount of this correspondence remained unanswered for some days during the time of the epidemic. I thoroughly expected to be court

martialed for this, and doubtless would have been, had one or two "hard-boiled" regulars had their way.

In the latter part of August I turned over the Winchester District to Captain Bowman, and was assigned to the command of the Army Hospital at Hursley, now renamed Base Hospital No. 204. Plans had been drawn for the enlargement of this hospital from 300 to 2,500 beds, the idea being to pick up additional personnel from casualties passing through England. The hospital at Hursley was already situated in an old British training camp, but much new construction, particularly ward buildings, was needed to accommodate anything like the number proposed. Plans were drawn in London, and the work organized and started. When the influenza epidemic reached us late in September, we had a capacity of a little over a thousand, and were opening up new wards almost daily. I must admit that we nearly "cracked" under the pressure of the "Flu." Had it not been for the excellent work of the Medical Service, and the use of practically all Surgical Wards for medical cases under the direction of Major Jouett, we would not have been able to handle any such number of cases. The period from the last of September until the armistice will always remain a sort of bad dream, attempting always to crowd more patients into the hospital, and to push the workmen out. British contract labor was most unsatisfactory, but the best we could get. The brightest spot in the week was dinner Saturday night. At the hour of 6.30, Major Bowman, Major Jouett, one or two others, and I, would foregather at the Hampshire Club in Winchester, and discuss good club food.

After the armistice the hospital at Hursley became the collecting point for American soldiers in British hospitals. These were sent from hospitals, large and small, all over England. Our job now was to classify these men, equip them, pay them, and send them back to the United States as fast as possible.

Working under all possible pressure, we got off our last convoy about Christmas time, the hospital was officially closed soon after January 1, and the personnel sent to the United States or France. A few weeks' more work was necessary to turn over the property to the quartermaster's department or British authority, and then I received welcome orders carrying me back to the United States.

RED CROSS WORK IN POLAND

WADE WRIGHT

IN February, 1919, the first relief train of the American Red Cross Commission to Poland, carrying supplies and personnel, was assembled in Berne. Under Swiss military convoy we took a rather adventurous course through Austria, stopping for a couple of days in Vienna, then starving and almost without hope; through Czecho-Slovakia, where the proud citizens of the new nation showed no special inclination to facilitate the passage of relief to the Poles, with whom they were then more or less at war; at last to Warsaw, where we were given a kind and sincere, but colorful and noisy welcome. Most of the color was contributed by brass hatted firemen and the noise by a band, which in our honor blared forth British melody.

The Republic of Poland was then but a few weeks old. Rapid progress was being made with the tremendous task of civil reorganization, but was greatly handicapped by lack of trained administrative personnel, of money, and of materials, as well as by the difficulties of conducting military operations on at least four fronts with few troops, and those ill equipped, with pitifully little food, and very inadequate communications.

Conditions throughout Poland, with the exception of that portion about Posen, which had been German, were known to be far from satisfactory, but desperate need was reported from the country to the east, back of the Bolshevik front. The part of old Russia lying east of Brest Litovsk and the Bug River, then in Polish hands, had been fought over since 1914. From it most of the peasants had fled with the Russian retreat in 1915. There had been little agricultural activity for four years, villages had been burned or had fallen almost into ruins through lack of care and the abuses of billeted German and Austrian troops. Into this region, penniless, starving refugees were returning from their voluntary exile in Russia, moving by rail, walking by the highways or by cross country trails. It was this uncontrolled movement of roving refugees, thoroughly infected as a group with typhus and small pox, practically without food in a country with no reserve, that rendered the situation critical and difficult.

The Polish lines on the Bolshevik front were held by patrols of a few men each, widely separated, and though effort was made to concentrate refugees in delousing stations along the frontier, there were wholly inadequate means for enforcing quarantine measures or for hospitalizing the sick, or indeed even for feeding hospital patients or giving them beds or bedding. Beds were made of wooden boxes, shavings served for mattresses, for there were few bed sacks and little straw. Blankets were almost a curiosity.

Areas with a population of a hundred thousand might be wholly without medical service. The army itself had limited medical and nursing personnel, and the most meager of sanitary equipment. Wounded were frequently operated upon without anæsthetics, and lay on hut floors without bedding. There were no ambulances and few hospital cars.

In isolated villages peasants were eating bread made of chaff, dried pea pods, old potato parings, and heather. Families lay delirious in their huts, cared for perhaps by an old neighbor woman who had little more than water to give them. The edema of starvation was far from uncommon. The mortality from typhus seemed to be low, probably not above five per cent, but extreme starvation complicated the reckoning.

It was in this area, the territory back of the Bolshevik-Polish front, that the Red Cross began its field operations. With the small medical personnel available, and with exceedingly limited medical equipment, it was futile to hope to offer any considerable amount of medical relief.

Four mobile units, each staffed with a physician, two Red Cross nurses, several Polish-American trained aides, a number of Polish girl assistants, laborers, and a detachment of Polish soldiers, were assigned stations in centers where it was believed they could best serve a reasonably large group of those needing assistance. While each unit endeavored to render medical aid in a dispensary, efforts were principally directed toward the development of facilities for bathing and delousing, clothing and feeding the peasants of their respective districts.

Bathing was a prerequisite to clothing, and even cherished beards were shorn as a price paid for the privilege of moving proudly about attired in American pajamas. These were excess military hospital supplies, "the Gift of the American People through the American Red Cross."

Canteens were established at the unit headquarters and

in nearby villages. In the towns, populated largely with Jews, it was perhaps necessary to operate two, one for Jews, strictly Kosher, the other for Gentiles.

Small hospitals were organized, and orphanages were either maintained and operated by the units, or assisted and furnished with supplies. Orphans appeared in bewildering numbers, and their care became a pressing problem.

One of the units was in command of Capt. Thomas M. Barber, who had been for some months attached to Base Hospital No. 6, and who later served as a medical house officer at the Massachusetts General Hospital.

Barber, a few weeks after establishing his post at Bereza Kartuska, contracted typhus, and through an unusually prolonged and severe illness was nursed by Miss Ruth Waterbury, who had been, as an army nurse of a Beau Desert unit, attached for a time to the hospital at Talence.

While supervising, in a very superficial way, the operation of these units, I rolled about the East country, skipper of a special train, furnishing the units with supplies and distributing equipment to Polish civil and military authorities.

In August, 1919, I trailed home, long months after the memorable pursuit of Henry Marble through the grottos of the South Station.

FROM BORDEAUX TO POLAND

THOMAS M. BARBER

THE Polish Commission of the American Red Cross was not a Base No. 6 unit, but there were enough of the old timers in it to make one feel good when we all got together in Warsaw from time to time. Not being of the original organization, I do not believe I fully realized I "belonged" until a friendly voice exclaimed at my arrival, "Oh, you were at Base No. 6 too!"

A septic foot had pulled me from the First Division at Soissons in July, 1918, and I carried a few Dakin tubes across France to Base 6 at Talence. My convalescence lasted until after the armistice, and I was officially attached in December. For a while I was assistant louse inspector of home-going troops, E. Lawrence Oliver being my beloved chief, and later was transferred to the 12th Engineers, who were sawing wood in the pines south of Bordeaux.

My first leave was a trip back to the Base, where I saw Wade Wright, and came in contact with his irresistible enthusiasm. It was in February when he was recruiting for the A. R. C., and in this I saw a path of adventure and service that would lift the army yoke, and give me a definite sailing date.

A month of Paris, a swift trip without stops, and I found Warsaw, the city of charm, and met Poles who were a constant surprise, for it was my first contact with the educated class of that people. The mere fact of being an American was enough to open all doors and hearts of both peasant and nobility. Wright had whipped a sluggish, poorly organized group of Americans into a working organization under difficulties that few will ever appreciate. The Poles were willing to help us aid them, but their help was often misdirected. The Americans had not found themselves. While they were in the process of doing so, Wright put working units in the field where starvation and typhus were worst, and kept these units going with his supply train.

Three days after my arrival in Warsaw I was on my way to an obscure village in the Pripet marshes east of Brest Litovsk. Here Field Director Wright dropped me with three Polish Americans and eight Polish girls as aides. He fur-

nished a squad of Polish soldiers, a carload of supplies, and I found a carpenter to replace doors and windows in the only available house. The people we were trying to help were peasants, ignorant and simple, but genuine, and not to be too harshly judged after so many years of continuous war. We were not equipped to do sanitation or to combat typhus, but we could visit villages of people who had never been more than a few miles from home, and sift out the children and aged most in need. We furnished clothes and food in small quantities, but cut dispensary work to a minimum, for almost every one was sick. The head men of villages for miles around would drive in to take us to their people in light basket-work wagons drawn by small ponies, in which we sat on heaps of grass covered by the best family blanket, and bumped along over road or marsh, which ever route seemed shorter. It was through the medium of this family blanket that I caught typhus soon after my work started. Typhus seems to have a strong affinity for foreigners. Peasants normally do not mind it a great deal, but in famine it hits them hard. It seemed as if the whole A. R. C. turned out to pull me through. They even sent oranges, an unheard-of luxury. As I convalesced I slowly worked down into Galicia. While not actually starving, the Poles were doing the next thing to it on a minimum ration. The worst time was in the spring, when the already scant food gave out entirely before spring crops could be realized. That was when we emptied our warehouses. We saw gay costumes that delighted the eye on Sundays, but week days were mostly rag days.

In Galicia, where I spent the last of my seventeen months overseas, we devoted our efforts chiefly to orphanages, homes, schools, hospitals, civil and military, and aided benevolent societies. We tried to incorporate as much Polish organization as possible into our own, to get their close coöperation in order that the work might be kept up after we left. Model orphanages were established wherever possible, and field units were placed in the worst districts. I worked from Lemburg as headquarters until the Bolshevik advance in the spring of 1920 made us partially evacuate to Cracow.

It was not a dull job. We traveled all over Poland, a lovely country with the sweeping Carpathians in the south, the endless plains to the north, and the leagues of marshes with their profusion of flowers, quaint log houses, hand hewn,

with thick straw-thatched roofs, and fat stork nests bringing luck to happy homes here and there. Twice I was fortunate enough to escort emergency relief trains, one in the bitter winter to Dzwinsk in southern Latvia, a new country north of Lithuania. The other was one of several sent to Kief, the city which at the time we reached it, had suffered fourteen changes of government during the war. This trip was made in the summer across the rolling rich lands of the Ukraine, and impressed me more than any other with the isolation of the country. It is a land of villages; few of its peasants have traveled more than fifty miles from home, some have never seen even their neighboring villages, and news trickles in only by word of mouth. Rarely do you find evidence of any education. America is the land of promise, and Americans are looked upon with reverence. The peasant who has been to Pittsburgh and earned a few dollars returns the wealthiest man of the village, has a few more cows, chickens, and pigs than any one else, and more often than not is made mayor.

The American Red Cross contribution during this period was small compared to the crying need of Poland, but it has been said that it was enough to turn the tide of famine and sickness, and make it possible for the country to survive long enough to get on to its feet at the dawn of its new existence.

THE GREEK MEDICAL UNIT

JOHN S. HODGSON

THE Greek Medical Unit of the American Red Cross was organized by Capt. Paul D. White, of Base Hospital No. 6, U. S. A., under the direction of Colonel Anderson, A. R. C., Commissioner to the Balkan States. The members of the unit were Captain White, and Lieutenants Binger, Clark, and Hodgson, of Base Hospital No. 6, and Captain Crawford, Unit O, attached to Base Hospital No. 6. These officers were discharged from the U. S. Army at St. Aignan, France, on January 31, and joined the American Red Cross on February 1, 1919.

The Red Cross started its relief campaign in the Balkan States after the war ended. The work consisted in the distribution of food and clothing, and in medical relief. The headquarters for the Balkan States was at this time in Rome, and that for Greece was in Athens. While the work in Greece included the mainland of old Greece and the islands, the chief center of relief was Eastern Macedonia, only recently recovered from Turkey and Bulgaria.

Already before our arrival the Red Cross had begun to distribute food and clothing in this region, but the few doctors there had been detailed to care for Red Cross personnel and organization in Athens. As at first organized, our unit was to equip and operate a twenty-bed general hospital with Red Cross supplies, in some especially needy area, and later turn it over to the Greek Government. In Paris we requisitioned the necessary supplies, and then proceeded to Athens via Rome. Just preceding our arrival in Rome came the news of a typhus epidemic in Eastern Macedonia. This led to the abandonment of our hospital plan and our immediate departure for Athens. The trip from Rome to Athens merits more space than I am permitted. We went by train to Taranto, the ancient Tarentum, in the "instep," then a twenty-four hour sail across the Ionian Sea into the Gulf of Corinth to Itea, on the northern shore near the foot of Parnassus. Thence we were taken over the mountains past Delphi by lorry, to the Athens-Salonika railroad, and on to Athens by train.

While information as to the true state of affairs in Macedonia was necessarily meagre and unreliable, there seemed to be no doubt that we were all needed there at once. Accordingly, all except Captain Crawford, who had remained behind in Rome on account of delayed baggage, left Athens as soon as louse-proof gowns were made, and proceeded by train to Eastern Macedonia, under the direction of Maj. Samuel J. Walker, A. R. C.

Our route took us along such historic spots as the Vale of Tempe, Mount Olympus, Thebes, and Chæronea to Salonika, thence by Lake Doiran and Rupel Pass, famous in the Salonika campaign, Demir-Hissar, and Serres in the Struma valley, to Drama. At Drama we left our train and proceeded by camion over the coastal range mountains to Kavalla, where our work began. We arrived here March 9.

Kavalla is a very picturesque old Turkish town, about one hundred miles from the Bulgarian frontier of Thrace. It is the Biblical Neapolis, and is built on the mountain side overlooking a roadstead of the Aegean, the island of Thasos fifteen miles away, and Mount Athos, the home of monasteries, in the far distance. Kavalla is the tobacco port for the very fertile plains in the hinterland, producing some of the finest cigarette tobacco in the world. Its pre-war population was about forty thousand, but during the great war, under Bulgarian occupation, it was reduced to twenty-five thousand.

As is well known, typhus fever is endemic in most of the Balkan States, with occasional slight epidemics, especially in war time. There had been an epidemic in Drama and Kavalla in 1917, during Bulgarian control, with six thousand cases and two thousand deaths at Drama. The present epidemic was introduced into Kavalla in February, 1919, by a ship-load of a thousand refugees arriving unexpectedly from Varna, the Bulgarian Black Sea port. Among this number were discovered three hundred cases of typhus. Emergency measures had to be adopted by the Greek authorities, and most of the ship-load, whether sick or well, were corralled by the municipal authorities in a large tobacco warehouse. Almost wholly lacking in methods of isolation, disinfestation, and quarantine in this crisis, the disease continued to spread among those in the warehouse, and was carried into and beyond the town before the military authorities intervened. When we arrived in Kavalla, the military and civil authorities were working to-

gether under the direction of the Greek Surgeon General, Colonel Kanavatzoglu, and his capable assistant, Lieutenant Moutoussis. They had established separate typhus hospitals for military and civilian cases, had adopted a system for disinfecting typhus patients, and had begun a daily house-to-house inspection for new cases; they had a quasi-quarantine inadequately enforced, and had established examining and delousing stations at the various main points of entrance into the town. Thus the nucleus of an adequate system for combating typhus had been begun before our arrival.

Theoretically, the organization was good, but practically it was not working satisfactorily, as the daily incidence of the disease proved. The main principles were not rigidly enforced, and the importance of carrying out details was not grasped. Moreover, there was a great dearth of doctors. They were manifestly in need of help, and we were welcomed and naturally given a fairly free hand. It was decided that the best policy lay in keeping the Greek army authorities in charge, we acting in an advisory capacity, and lending our active assistance whenever needed. At first our time was spent watching the Greek system in operation; then making suggestions along lines of needed improvement at regular conferences with the Greek authorities, and finally participating in putting the system into execution.

The organism causing typhus exanthematicus has not been discovered, despite the arduous researches of Nicolle, Plotz, and many others. It is now generally admitted, however, that the intermediary host is the head louse, the body louse, and possibly the pubic louse. The attack, therefore, must be directed against the louse. There was nothing exceptionally novel in our plan of dealing with typhus fever. In the main, it closely resembled the system employed by Dr. Strong in Serbia, in 1915, and by the Bulgarians, under German supervision, during Bulgar occupation in Eastern Macedonia. The town was divided into sections for the purpose of a house-to-house examination. The sections were inspected daily by a doctor, accompanied by a Greek interpreter. Captain White and Lieutenants Binger, Clark, and Hodgson each had a section. At the end of each day a written report was made at a conference held in the Demarch's or Nomarch's office. Inspection had to be made very carefully. No room, corner, or cellar, or member of the household could be overlooked

in a country so teeming with superstition of doctors and hospitals.

Directly a case of typhus was discovered, the patient was removed to a typhus hospital, the family deloused, the house disinfected, and the family quarantined for two to three weeks. Quarantine was enforced by Greek soldiers, through whom the families were rationed. The patient having arrived at the hospital was stripped, all hair was clipped, the body was given a hot soap and water bath, and treated with kerosene and olive oil, equal parts, and put to bed. There was no particular medication, though some faith was held locally in the efficacy of caffeine, camphor in oil, and adrenalin in cases of marked asthenia with lowered pressure. Mouth care, to guard against parotitis, was too often neglected. Ordinarily there is little else to do except to keep up nutrition, for most cases run their course in ten to fourteen days, or die sooner if of the severe or hemorrhagic form. Each of the two typhus hospitals, civilian and military, had its own delousing plant. There were also two large public delousing stations. Every inhabitant of the city and every soldier was required to undergo prophylactic treatment at one of these stations once a week, and to have certified proof of this in the form of a card, constantly on hand.

These stations were formerly the old public Turkish baths, adapted to present needs by the addition of Serbian barrels for disinfesting clothes. The procedure here, as in the case of typhus, consisted in the clipping of all hair, hot baths, the application of kerosene oil and olive oil, and the steaming of all clothing at 100° C. for one hour. Having discovered a case of typhus, the other members of a family or military unit in which it occurred were treated at the delousing station, the house cleansed and white-washed, and the household or unit quarantined for two to three weeks. It was in the matter of details connected with the disinfestation of clothing, and the proper enforcement of quarantine, etc., that the help of the Red Cross was most needed and effective. The Greek authorities had conceived many of the main principles, but had neglected the details, and all our energy was summoned to impress their importance. The Greeks were most affable and coöperative, but untrained and forgetful.

Regulations were put into effect for safe-guarding against the introduction of new cases from without, and against carry-

ing the disease from Kavalla into the neighboring country, by the establishment of inspection stations on the various main roads leading into the city. All traffic was inspected at these points, and every individual was required to produce his delousing card, or failing that, to undergo the delousing process at once. By daily inspection of traffic to and from the city, by expedition in getting cases into the hospital, by proper disinfection and quarantine, the Kavalla typhus epidemic was gradually checked and reduced from several to no new cases per day. The advent of spring, and with it improved living conditions, and the annual Easter house-cleaning and white-washing, however, must have been a highly important factor.

For personal protection—at the start of our work in Kavalla, we employed for a brief time our louse-proof gowns, which were also provided for attendants at delousing stations. These gowns were tried on the recommendation of Dr. Strong as a result of his experience in Serbia in 1915. They were a one-piece cotton suit with the only openings at the neck and wrists, and these were provided with draw-strings. They were worn as under-clothes and not over the outer clothing, but were found to be rather impractical and were abandoned. After that our clothes were sterilized and laundered by Red Cross domestics, and the usual precautions against vermin observed.

To avoid a repetition of this epidemic, a quarantine camp was later established at Kavalla for further refugees. The Kavalla epidemic was practically over a month after our arrival, and at the end of this time, Captain White and Lieutenant Hodgson proceeded to Drama, while Lieutenant Binger remained to assist Lieutenant Moutoussis in establishing the quarantine camp. The Drama situation was somewhat different. There had been no great influx of the disease as at Kavalla, but to the endemic form had been more recently added a certain number of refugees, some coming by train from Bulgaria, and some straggling over the border. The disease did assume a slightly epidemic form, but not until the Kavalla experience had resulted in organization all around.

Drama was another very interesting old Turkish town, built on one end of the plain of Philippi, in the heart of the tobacco district at the foot of the mountains, on the railroad from Salonika to Constantinople, about fourteen hours from the former. Its narrow, tortuous streets, its peculiar popula-



VERANDA OF THE LYCÉE

U. S. Official



OPERATING ROOM

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ONE OF THE NEW AMERICAN WARDS



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ANOTHER VIEW OF SURGICAL AND ORTHOPEDIC WARDS

tion of Greeks, Turks, Jews, Tziganes, and Vlachs, its storks, etc., leave an indelible impression. At Drama we occupied the former Tameion or Treasury Building. This town had been Bulgarian headquarters during their occupation, but aside from slight damage by occasional British airplane raids, had suffered little destruction. It was about the same size as Kavalla. Our work here lasted only about a week, for by the time we arrived, the epidemic had been largely checked by a very efficient organization under the immediate control of Lieutenant Kyriazides.

On April 11, Captain White and Lieutenant Hodgson proceeded to Serres in the Struma valley. Before the Balkan Wars of 1912 and 1913, Serres had a population of thirty thousand, but at the time we were there this had been reduced to fifteen or twenty thousand. Formerly one of the most beautiful towns in Macedonia, it had, in places, chiefly during the Balkan Wars, and to a certain extent during the great war, been reduced to a mass of ruins. Serres, which was just behind the Bulgar trenches during most of the war, lies in the valley of the Struma River, between parallel mountain ranges in close proximity to the huge marshes producing the anopheles mosquito, which was responsible for the enormous incidence of malaria among the civil population and among the allied forces during the war. While there we occupied the former residence of a Turkish bey.

In connection with Serres one should never fail to mention the great number of birds; jackdaws, ringdoves, owls, and storks, particularly the latter. Coming from Egypt in the spring, these gaunt birds, with incessantly clattering beaks, build their nests in poplars, on roof tops, and on the domes of mosques, absolutely unmolested.

On arriving in Serres, on April 11, 1919, Captain White and Lieutenant Hodgson found a fair organization, and typhus on the wane. Under the direction of the Greek Surgeon General, Colonel Kanavatzoglu, a reorganization took place shortly after our arrival. The new plan met with our approval, and we merely assisted in carrying it out. It corresponded exactly to the Kavalla plan, with the addition, in each section to be inspected, of a school teacher, a Greek Pappas, and a Turkish Hodja. Typhus was already on the decline with an average daily incidence of three to five cases, and in about a month the epidemic had been checked.

Aside from typhus fever, and a certain amount of chronic invalidism from malaria, there was surprisingly little disease in Eastern Macedonia at this time.

Lieutenant Binger remained for a time in Kavalla, but later joined us in Serres. Lieutenant Clark left us in Kavalla, in March, and returned to the United States, via Athens and the Piræus, because of the illness of his mother. Captain Crawford never joined the rest of the unit, being stationed most of the time at headquarters in Athens. Lieutenant Hodgson contracted typhus fever in Serres, in April, and he and Lieutenant Binger later left there for home, via Athens, Marseilles, and Paris. Captain White remained in Greece until July 1, visiting hospitals throughout the country, and requisitioning the needed supplies. He returned home via Constantinople, Roumania, Austria, Switzerland, and France.

The original hope of the Greek Medical Unit, that of establishing a hospital, was never realized, but the work finally accomplished was just as important. Aside from the assistance given, there was the advantage to us and to the Greeks of the setting up of a closer understanding, a better mutual appreciation, and a lasting friendship.

Captain White received the decorations of the Military Medal, and the Order of the Redeemer; Captain Crawford, the Military Medal; Lieutenant Binger, the Military Medal, and the Order of the Royal Battalion of George First; Lieutenant Clark, the Military Medal; and Lieutenant Hodgson, the Greek War Cross, and the Order of the Royal Battalion of George First.

OFFICIAL CHRONOLOGY, U. S. ARMY BASE
HOSPITAL NO. 6

Edited by
GEORGE A. LELAND,

I. GENERAL EVENTS OF IMPORTANCE

June, 1916, to June, 1917. Base Hospital No. 6 organized and preparations made for mobilization of Unit.

1917 :

May 24 to June 4. Enlistment of personnel of Unit by 1st Lieut. Paul D. White, M. R. C., the first of the Unit to be called into active service.

May 29. Maj. Frederic A. Washburn, M. R. C., assumed command of Unit.

June 1. Medical Detachment proceeded to Fort Strong under charge of 1st Lieut. Eugene Villaret, C. A. C., by order of the War Department. From that date until July 9 the Medical Detachment was drilled at Fort Strong by Lieutenant Villaret, Company Commander.

June 28. 64 nurses, 6 secretaries, and 1 dietitian entered active service.

June 29. Nurses left Boston for Ellis Island.

July 3. 26 officers and 1 Red Cross chaplain entered active service at Fort Strong, Boston.

July 9. Officers and men left Boston.

July 10. Went on board *S. S. Aurania* at New York.

July 11. Unit sailed at 4.45 P.M.

July 20. U. S. Destroyer No. 60 appeared off the starboard quarter at 3.07 P.M.

July 21. Arrived at Queenstown Harbor at 12.35 P.M.

July 22. Left Queenstown at 11.20 P.M.

July 23. Arrived at Liverpool at noon. Traveled directly by special train to Southampton. Capt. William J. Mixter, M. R. C., and eight men of Medical Detachment left at Liverpool to look after hospital freight.

July 24. Spent the day in Southampton waters, off Cowes, on Australian Hospital Ship *Warilda*. Sailed for Le Havre at 7 P.M.

July 25. Arrived at Le Havre at 2 A.M.

1917:

- July 25 to July 27. Enlisted men and several officers at British Rest Camp at Le Havre. Remaining officers quartered in hotels; secretaries and nurses at Jeanne d'Arc Orphanage.
- July 27. Left Le Havre about 5 P.M. on special train.
- July 28. Arrived at Bordeaux at 11.30 A.M. Medical Detachment, secretaries, nurses, and several officers quartered at French Hospital Complementary No. 25 (Petit Lycée de Bordeaux), Talence. Remaining officers quartered in hotels in Bordeaux for two to three weeks.
- Sept. 1. French Hospital Complementary No. 25 (Petit Lycée de Bordeaux), Talence, turned over by the Médecin-Chef by order of General Clarac, Director of the Service de Santé of the 18th Region.
- Sept. 5. Administration Building occupied.
- Sept. 8. Main construction work started. (See Section II, p. 192.)
- Oct. 28. First visit of General Pershing.
- Nov. 20. Heads of professional services appointed.
- Dec. 25. Red Cross Hut for enlisted personnel opened for use.

1918:

- Jan. 30. 100 beds set aside for French wounded.
- March 1. Château de Breuil leased for nurses.
- March 13. Visit of General Pershing and Secretary of War Baker.
- April 3. First large convoy received, American Ambulance Train No. 53, from up the line. Patients chiefly convalescent, some from slight wounds received in action. Number of patients, 326.
- April 8. French convoy received, mostly slightly wounded. Number of patients, 99.
- April 25. Command of hospital taken over by Maj. Warren L. Babcock, M. R. C., Major Washburn leaving for England.
- May 13. Second large convoy, chiefly convalescent from slight wounds and gas. Number of patients, 399.
- May 13. Château de Beycheville opened by Red Cross for use as convalescent officers' ward of hospital.
- May 21. Son (George Edwin Bucklin) of American Consul, Bordeaux, born at this hospital.
- June 4. 2d French Convoy, mostly slightly wounded. Number of patients, 80.
- June 14 and 19. 3d and 4th convoys, together more than a thousand Americans, fresh from the front at Château-Thierry and Montdidier, chiefly wounded and gassed.

1918:

- July 4. Independence Day. Celebrated by French and Americans. Convoy No. 6, Sanitary Train 53, from Evacuation Hospital No. 7, 351 patients—American.
- July 7. School for Instruction for Casual Officers established, the instruction being given by members of the Surgical and Medical Staffs of the Hospital.
- July 9. Convoy No. 7, French Train, from French Hospital, Beauvais, 128 patients—American.
- July 14. "Bastille Day." Celebrated by Americans and French.
- July 22. Convoy No. 8, Sanitary Train 64, from A. R. C. Hosp., Paris, 630 patients—American.
- July 23. Convoy No. 9, Sanitary Train 60, from A. R. C. Hosp., Paris, 662 patients—American. 37 French patients received from French convoy.
- July 24. Convoy No. 10, French Train, from A. R. C. Hosp., Paris, 50 patients—American.
- July 26. Convoy No. 11, Sanitary Train 58, from A. R. C. Hosp., Paris, 578 patients—American.
- July 29. Convoy No. 12, Br. Tr. 36, from Evacuation Hosp. No. 8, 204 patients—American.
- July 30. Third visit of General Pershing.
- Aug. 1. Convoy No. 13, Br. Tr. 37, from Evacuation Hospital No. 7, 150 patients—American.
- Aug. 8. Visit of Brig.-Gen. M. W. Ireland, Chief Surgeon, A. E. F.
- Aug. 9. Convoy No. 14, Sanitary Train 53, from Paris Hospitals, 489 patients—American.
- Aug. 10. Convoy No. 15, Br. Tr. 31, from Paris Hospitals, 501 patients—American.
- Aug. 17. Reservation of 100 beds for French wounded canceled by French authorities on request of Chief Surgeon, A. E. F.
- Aug. 18. Convoy No. 16, Sanitary Train 61, from Base Hospitals Nos. 18, 66, 116, 300 patients—American.
- Aug. 20. Convoy No. 17, Sanitary Train 52, from Base Hospitals Nos. 46, 18, 360 patients—American.
- Aug. 23. Convoy No. 18, Sanitary Train 51, from Base Hospital No. 17, 305 patients—American.
- Aug. 28. "Crisis Emergency" capacity of hospital increased to 3,898 beds and cots, including Red Cross Huts and corridors.
- Aug. 30. Convoy No. 19, Sanitary Train 52, from Base Hospitals Nos. 31, 32, 398 patients—American.

1918:

- Sept. 1. All soldiers patients in hospital, except marines, paid 45 francs each, partial payment, per tel. orders C. S. A. E. F. August 29, 1918.
- Sept. 5. Convoy No. 20, Sanitary Train 54, from Base Hospitals Nos. 66, 17, 15, 380 patients—Americans.
- Sept. 6. Convoy No. 21, Sanitary Train 45, from Base Hospitals Nos. 18, 42, 43, 46, 116, 180 patients—American.
- Sept. 20. Second visit of Secretary of War, Newton D. Baker, accompanied by Gen. Tasker H. Bliss.
- Sept. 26. Convoy No. 22, Sanitary Train 64, from Evacuation Hospitals Nos. 6, 7, 449 patients—American.
- Sept. 28. Convoy No. 23, Sanitary Train 54, from Base Hospitals Nos. 52, 58, 450 patients—American.
- Oct. 1. Second payment to all soldiers patients in hospital, except marines, of 45 francs each, partial payment, per tel. orders C. S. A. E. F. August 29, 1918.
- Oct. 8. Convoy No. 24, Sanitary Train 64, from Base Hospitals Nos. 23, 36, 452 patients—American.
- Oct. 12. Convoy No. 25, Sanitary Train 66, from Toul, 380 patients—American.
- Oct. 16. Convoy No. 26, Sanitary Train 52, from Basoilles, 420 patients—American.
- Oct. 17. Convoy No. 27, Sanitary Train 55, from Evacuation Hospital No. 7, 418 patients—American.
- Oct. 21. Convoy No. 28, Sanitary Train 63, from Souilly, 642 patients—American.
- Oct. 24. Convoy No. 29, Sanitary Train 50, from Souilly, 305 patients—American.
- Oct. 27. Convoy No. 30, Sanitary Train 58, from Souilly, 509 patients—American.
- Oct. 28. Convoy No. 31, Sanitary Train 54, from Vaubecourt, 150 patients—American.
- Oct. 31. All activities at Medical Detachment Red Cross Hut assumed by American Red Cross, relieving Y. M. C. A. from further duty at this hospital.
- Nov. 1. Caserne Carayon-Latour (Pessac) taken over from French for equipment and administration by U. S. A. Base Hospital No. 6; designated U. S. A. Base Hospital No. 220.
- Nov. 1. Convoy No. 32, Sanitary Train 63, from Souilly and Fleury, 438 patients—American.
- Nov. 3. Convoy No. 33, Sanitary Train 64, from Souilly, 489 patients—American.
- Nov. 8. Convoy No. 34, Sanitary Train 53, from Souilly, 614 patients—American.

1918:

- Nov. 12. Convoy No. 35, Sanitary Train 60, from Souilly, 522 patients—American.
- Dec. 3. Orders received from Chief Surgeon, A. E. F., to cancel lease Base Hospital No. 220 (Caserne Carayon-Latour).
- Dec. 5. Establishment Convalescent Camp for this Station.
- Dec. 14. Convoy No. 36, Sanitary Train 52, from Base Hospital No. 15, Chaumont, 455 patients.
- Dec. 22. Convoy No. 37, Sanitary Train 64, from Base Hospital No. 17, Dijon, 241 patients.
- Dec. 28. Convoy No. 38, Sanitary Train 60, from Base Hospitals Nos. 23, 36, 31 and 32 at Vittel and Contexeville, 253 patients.
- Dec. 31. Establishment of Statistical Research Dept. with day and night shifts, in Record Office.

1919:

- Jan. 1. Convoy No. 39, Sanitary Train 53, from Base Hospital No. 7, 394 patients—American.
- Jan. 2. U. S. A. Base Hospital No. 208, Maj. Gustavus M. Blech, M. C. U. S. A., commanding, consisting of 16 officers, 6 nurses, 64 Medical Detachment soldiers, and 6 civilians, reported as a Replacement Unit for U. S. A. Base Hospital No. 6.
- Jan. 6. Convoy No. 40, Sanitary Train 64, from Vichy Hospital Center, 485 patients—American.
- Jan. 7. Unit Q, consisting of 11 officers, 28 nurses, and 47 Medical Detachment soldiers, reported for duty with U. S. A. Base Hospital No. 208.
- Jan. 8. Convoy No. 41, from Camp Hospital No. 39 and Base Hospitals Nos. 19, 1, and 115, 60 patients—American.
- Jan. 14. U. S. A. Base Hospital No. 6 closed all hospital records and functioning as a hospital at midnight of January 14, 1919, per telegram No. 1185 January 10, 1919, Chief Surgeon, A. E. F. All hospital buildings and equipment taken over by U. S. A. Base Hospital No. 208 and name of hospital changed to "U. S. A. Base Hospital No. 208." U. S. A. Base Hospital No. 6 records continued as Unit awaiting transportation to the United States, and personnel placed on temporary duty with U. S. A. Base Hospital No. 208.
- Jan. 15. Capt. William M. Hunter, M. C., Registrar of U. S. A. Base Hospital No. 6, to Headquarters S. O. S. A. E. F. to carry out provisions of Circular Letter 32-A, O. C. S. January 3, 1919, to deliver Hospital Records concerning sick and wounded.

1919:

- Jan. 18. Col. W. L. Babcock, M. C., Commanding Officer U. S. A. Base Hospital No. 6, relieved from command for transfer to United States. Lieut.-Col. Lincoln Davis, M. C., appointed Acting Commanding Officer U. S. A. Base Hospital No. 6.
- Feb. 4. Orders received for U. S. A. Base Hospital No. 6 to prepare for embarkation.
- Feb. 10. Embarkation Orders received placing U. S. A. Base Hospital No. 6 on priority list at Bordeaux.
- Feb. 14. 24 officers, 69 nurses, and 3 civilian secretaries embarked from Bordeaux on *S. S. Abangarez*.
- March 5. Organization consisting of 5 officers and 158 enlisted men transferred to Beau Desert Hospital Center, France, to await transportation to United States.
- March 11. Organization embarked on U. S. A. *Antigone* for return to United States.
- March 24. Organization landed in Hoboken, N. J., and proceeded to Camp Merritt, N. J.
- April 1 to 5. Organization at Camp Merritt, N. J.
- April 5. Organization transferred to Camp Devens, Mass., arriving morning of sixth.
- April 9. U. S. A. Base Hospital No. 6. demobilized.

II. CONSTRUCTION

Company C, 18th Engineers, R'y, assigned for duty at the Hospital in the fall of 1917, were of great assistance in getting repairs and new construction work started.

Main construction work started September 8, 1917.

Telephone installation begun September 13, and completed October 5, 1917.

New kitchen and dining rooms begun October 1, 1917, and completed in March, 1918.

Warehouse begun in November, 1917, and finished in February, 1918.

Central heating plant begun in November, 1917, and finished in May, 1918.

Septic tank and sewer begun in November, 1917, and finished in February, 1918.

Nurses' barracks (Group 8) started in November, 1917, and finished May, 1918.

Twelve additional wooden wards (Group 3) started in January, 1918, and completed in June, 1918.

Six isolation wards (Group 7) begun in January, 1918, and completed, two each in August, September, and October, 1918.

Enlisted men's barracks begun in April, 1918, and completed in June, 1918.

Group 4 wards started April 30, 1918, and completed in June, 1918.

Group 5 wards started December, 1917, and completed in June, 1918.

Red Cross Hut for Medical Detachment started October, 1917, and completed Christmas, 1917.

Ice plant started February, 1918, and completed on July 31, 1918.

Adrian Barracks for Medical Detachment begun May 20, 1918, completed June 30, 1918.

Work begun on Group 5 by American Engineers to add two service rooms to each barracks, in order to utilize them for bed patients, July 1, and completed July 31, 1918.

Work on Base Laboratory completed July, 1918.

Board walks connecting all barracks of Groups 3, 4, 5, and 6 finished.

Work on roads within grounds completed during July, 1918.

Construction to turn Group 6 into bed wards completed in August, 1918.

Various repairs and adjustments made on finished construction from September 1, 1918, to January 14, 1919.

III. PERSONNEL

The original unit consisted of 28 Officers, 1 Red Cross Chaplain, 64 Nurses, 6 Secretaries, 1 Dietitian, and 153 men of the Medical Detachment.

1917:

May 24. 1st Lieut. Paul D. White, M. R. C., was ordered to active service to enlist personnel.

May 28. 1st Lieut. Eugene Villaret, C. A. C., appointed Company Commander by War Dept.

May 29. Maj. Frederic A. Washburn, M. R. C., appointed Commanding Officer by War Dept.

May 31. Capt. Henry C. Marble, M. R. C., appointed Acting Adjutant and Registrar by Commanding Officer.

June 4. Capt. E. H. Bogan, Q. M. U. S. R., assumed duties of Quartermaster by order of War Dept.

June 8. 1st Lieut. James H. Means, M. R. C., appointed Surgeon to Medical Detachment at Fort Strong by Commanding Officer.

1917:

- July 2. Capt. Larry B. McAfee, M. C., reported for duty at Fort Strong as Adjutant, under appointment by War Dept.
- July 5. The following appointments were made by Commanding Officer: Maj. Lincoln Davis, M. R. C., Summary Court Officer; Capt. Robert W. Holmes, M. R. C., Company Commander, relieving Lieut. Villaret; 1st Lieut. George Clymer, M. R. C., Mess Officer.
- July 23. Capt. William J. Mixter, M. R. C., left on detached service at Liverpool with eight men of Medical Detachment to look out for freight. Rejoined Unit at Talence August 4.
- July 28. Miss Sara E. Parsons, R. N. A. N. C., appointed Acting Chief Nurse by Commanding Officer.
- Aug. 10. The following executive council was appointed by the Commanding Officer: Maj. Frederic A. Washburn, M. R. C., Maj. Richard C. Cabot, M. R. C., Maj. Lincoln Davis, M. R. C., Capt. Larry B. McAfee, M. C., 1st Lieut. James H. Means, M. R. C.
- Aug. 16. Capt. Larry B. McAfee, M. C., to Paris on temporary duty. Commissioned Major, M. C. Returned to duty August 19.
- Aug. 23. Maj. Lincoln Davis, M. R. C., Capt. Zabdiel B. Adams, M. R. C., and Capt. Beth Vincent, M. R. C., ordered to temporary duty at Ris-Orangis. Returned to duty September 9.
- Aug. 27. 1st Lieut. Ralph A. Hatch, M. R. C., appointed Post Exchange Officer by Commanding Officer. No post exchange organized because of G. O. putting all post exchanges in hands of Y. M. C. A.
- Aug. 30. Maj. Larry B. McAfee, M. C., transferred to duty at office of Base Section No. 2, Bordeaux.
- Aug. 30. 1st Lieut. James H. Means, M. R. C., appointed Adjutant, relieving Major McAfee.
- Sept. 2. 1st Lieut. Forrest M. Evans, M. R. C., reported for duty. Transferred October 23 for duty as assistant to Base Surgeon, Base Sec. No. 2.
- Sept. 3. 1st Lieut. Charles W. Strowger, M. R. C., reported for duty. Transferred to Le Courneau, November 20. 1st Lieut. Glenford L. Bellis, M. R. C., reported for duty. Transferred September 21 to duty with American Red Cross.
- Sept. 5. First Medical Disability Board appointed: Maj. Richard C. Cabot, M. R. C., 1st Lieut. Paul D. White, M. R. C., 1st Lieut. Glenford L. Bellis, M. R. C.
- Sept. 8. 1st Lieut. Paul D. White, M. R. C., appointed as surgeon to Unit and in charge of Pharmacy and Medical Supplies.

1917:

- Sept. 14. Maj. Richard C. Cabot, M. R. C., and 1st Lieut. De Witt S. Clark, M. R. C., on temporary duty at British Front. Returned to duty October 1.
- Sept. 14. Capt. William L. Moss, M. R. C., sent to Limoges on temporary duty to organize hospital there. Returned to duty October 7.
- Sept. 26. Capt. Adelbert S. Merrill, M. R. C., Capt. Beth Vincent, M. R. C., and 1st Lieut. Joseph C. Aub, M. R. C., on temporary duty at Soissons. Returned to duty November 5.
- Sept. 28. 1st Lieut. Frederick C. Irving, M. R. C., and 1st Lieut. Wade S. Wright, M. R. C., on temporary duty 3d Army, B. E. F., returned to duty October 18.
- Sept. 29. Capt. Richard F. O'Neil, M. R. C., on temporary duty at Office, Chief Surgeon. Returned to duty October 14.
- Sept. 30. 1st Lieut. James H. Means, M. R. C., on temporary duty at Paris. Returned to duty October 7.
- Oct. 4. 48 enlisted personnel of Medical Department reported for duty.
- Oct. 11. Capt. Everard L. Oliver, M. R. C., on temporary duty 3d Army, B. E. F. Returned to duty November 8.
- Oct. 13. 1st Lieut. De Witt S. Clark, M. R. C., on temporary duty at St. Nazaire. Returned to duty October 28.
- Oct. 13. 1st Lieut. George A. Leland, Jr., M. R. C., on temporary duty 3d Army, B. E. F. Returned to duty November 8.
- Oct. 19. 1st Lieut. Robert L. Gardner, M. R. C., reported for duty. Transferred to Hdq. Base Sec. No. 2, January 24, 1918.
- Oct. 20. Maj. George de Tarnowsky, M. R. C., reported for duty. On temporary duty with A. R. C., October 24.
- Oct. 23. Capt. Robert W. Holmes, M. R. C., on temporary duty to open Infirmaries at Rest Camp No. 2, Base Sec. No. 2.
- Oct. 23. 1st Lieut. Frederick C. Irving, M. R. C., appointed Company Commander, relieving Captain Holmes.
- Oct. 25. Maj. Richard C. Cabot, M. R. C., on temporary duty at Paris with American Red Cross. Returned to duty February 28, 1918.
- Oct. 26. 64 enlisted personnel of Medical Department reported for duty.
- Oct. 28. 1st Lieut. Carl A. Binger, M. R. C., on temporary duty 3d Army, B. E. F. Returned to duty November 22.
- Oct. 28. Capt. Richard F. O'Neil, M. R. C., on temporary duty 3d Army, B. E. F. Returned to duty November 22.

1917:

- Oct. 29. 1st Lieut. W. R. Rothe, M. R. C., reported for duty. Transferred to Le Courneau January 3, 1918.
- Oct. 29. Capt. Pierre C. Pilon, M. R. C., reported for duty. On temporary duty with Co. C, 18th Engineers, R'y, at Pauillac, December 13. Transferred to duty at Camp Souge April 26, 1918.
- Nov. 3. Capt. Richard F. O'Neil, M. R. C., appointed Urologist for Base Sec. No. 2, per Par. 12 S. O. 146 H. A. E. F. Nov. 3.
- Nov. 5. Capt. William H. Mook, M. R. C., reported for duty.
- Nov. 6. Capt. Henry C. Marble, M. R. C., on temporary duty at Ris-Orangis. Returned to duty November 14.
- Nov. 6. 1st Lieut. Paul D. White, M. R. C., on temporary duty at Ris-Orangis. Returned to duty November 15.
- Nov. 6. 1st Lieut. Ralph A. Hatch, M. R. C., on temporary duty at Ris-Orangis. Returned to duty November 14.
- Nov. 6. 1st Lieut. L. E. Lesser arrived from ship that had been torpedoed. Left November 18.
- Nov. 9. Master Hospital Sergeant Revello M. Walker, M.D., commissioned 1st Lieutenant, S. C. N. A.
- Nov. 10. 1st Lieut. Revello M. Walker, S. C. N. A., appointed Mess Officer, relieving Lieutenant Clymer.
- Nov. 11. 1st Lieut. George Clymer, M. R. C., appointed War Insurance Officer.
- Nov. 13. 1st Lieut. James H. Means, M. R. C., commissioned Captain, M. R. C.
- Nov. 27. 1st Lieut. Wade S. Wright, M. R. C., to temporary duty with American Red Cross. Returned June 28, 1918.
- Nov. 30. 1st Lieut. George Clymer, M. R. C., to temporary duty with 3d Army, B. E. F. Returned to duty December 23. 1st Lieut. Harold G. Tobey, M. R. C., to temporary duty with 3d Army, B. E. F. Returned to duty December 23.
- Dec. 3. Sgt. Ralph P. Heard, M. E. R. C., commissioned 1st Lieutenant, S. C. N. A. Appointed Assistant to Quartermaster in charge of Construction December 6.
- Dec. 9. Capt. William H. Mook, M. R. C., on temporary duty 1st Army, B. E. F. Returned to duty March 11, 1918.
- Dec. 10. Capt. William L. Moss, M. R. C., on temporary duty Hdq. L. O. C. Returned to duty December 16.
- Dec. 16. Capt. Everard L. Oliver, M. R. C., temporary duty Hdq. L. O. C. Returned to duty February 6, 1918.

1917:

- Dec. 17. Sgt. 1st cl. Harry Conners, M. E. R. C., commissioned 1st Lieutenant, S. C. N. A. Transferred to Hdq. Base Section No. 2, January 7, 1918.
- Dec. 21. Capt. James H. Means, M. R. C., on temporary duty Hdq. Base Sec. No. 2. Returned to duty January 8, 1918.
- Dec. 26. Capt. William J. Mixer, M. R. C., on temporary duty at Ris-Orangis. Returned to duty January 5, 1918. 1st Lieut. DeWitt S. Clark, M. R. C., on temporary duty at Ris-Orangis. Returned to duty January 11, 1918. 1st Lieut. William H. Sherburne, D. R. C., on temporary duty at Ris-Orangis. Returned to duty January 11, 1918.
- Dec. 31. Château Crespy occupied by officers for quarters and mess.

1918:

- Jan. 1. 1st Lieut. Ralph A. Hatch, M. R. C., on temporary duty 3d Army, B. E. F. Returned to duty January 20.
- Jan. 1. Capt. Zabdiel B. Adams, M. R. C., on temporary duty 3d Army, B. E. F. Returned to duty January 20.
- Jan. 3. 1st Lieut. John S. Hodgson, M. R. C., reported for duty.
- Jan. 16. 1st Lieut. Frederick C. Irving, M. R. C., appointed War Risk Insurance Officer, relieving 1st Lieut. George Clymer, M. R. C.
- Jan. 17. 1st Lieut. Frederick C. Irving, M. R. C., commissioned Captain, M. R. C.
- Jan. 22. Capt. Zabdiel B. Adams, M. R. C., on temporary duty at Neufchâteau, Special Training Battalion, 26th Division.
- Feb. 5. Maj. Frederic A. Washburn, M. R. C., on temporary duty at Base Hospital No. 18. Returned to duty February 19.
- Feb. 6. Miss Mary Lee, Secretary, resigned to take position with Air Service, as Secretary.
- Feb. 6. 1st Lieut. Revello M. Walker, S. C. N. A., transferred to duty at office of Surgeon, Base Section No. 2. 1st Lieut. George Clymer appointed Mess Officer, relieving Lieutenant Walker.
- Feb. 9. Sgt. 1st cl. Francis H. Cloudman, M. E. R. C., commissioned 1st Lieutenant S. C. N. A. Appointed Medical Supply Officer, relieving Lieutenant White.
- March 1. 1st Lieut. Harry Gauss, M. R. C., reported for duty. Assigned as Serologist.
- March 3. Maj. Lincoln Davis, M. R. C., and Capt. Frederick C. Irving, M. R. C., temporary duty with Surgical Team at Hdq. 42d Div., Luneville. 1st Lieut. G. A. Leland, Jr., M. R. C., appointed Company Commander, relieving Captain Irving.

1918:

- March 4. Capt. William J. Mixter, M. R. C., appointed Registrar, relieving Captain Marble. Capt. William L. Moss, M. R. C., appointed Summary Court Officer during absence of Major Davis.
- March 10. Capt. Roger Kinnicutt, M. R. C., appointed Director of Base Laboratory, Base Sec. No. 2, per V. O. Chief Surgeon Base Sec. No. 2.
- March 10. 21 nurses of Unit O reported for duty.
- March 15. 11 officers and 46 men, Unit O, reported for duty.
- March 18. 1st Lieut. Albert W. Ghoreyeb, M. R. C., reported for duty.
- March 20. 1st Lieut. Robert G. Allison, M. R. C., reported for duty. Transferred to duty at American Red Cross Military Hospital No. 2, April 2.
- March 22. Sgt. Douglas Basnett, M. E. R. C., commissioned 1st Lieutenant, S. C. N. A. Appointed Mess Officer, relieving Lieutenant Clymer.
- March 27. 1st Lieut. William H. Sherburne, D. R. C., on temporary duty at Army Sanitary School. Returned to duty April 16.
- April 1. Capt. Everard L. Oliver, M. R. C., appointed Garden Officer.
- April 4. Capt. Marion H. Wyman, M. R. C., and Lieut. Charles L. Allen, M. R. C., on temporary duty, Rest Camp No. 4. Returned to duty April 20.
- April 4. 1st Lieut. James M. Davis, M. R. C., on temporary duty at Camp Souge. Returned to duty June 6.
- April 4. Capt. James P. Matheson, M. R. C., on temporary duty at Camp Souge.
- April 4. 1st Lieut. Archie A. Barron, M. R. C., on temporary duty at Camp Souge.
- April 4. Capt. Henry C. Marble, M. R. C., on temporary duty at Dax. Returned to duty June 3.
- April 7. Capt. Bert Herbst, Q. M. R. C., attached as Quartermaster under order to relieve Capt. E. H. Bogan, Q. M. R. C. Captain Bogan relieved April 22.
- April 9. Capt. Beth Vincent, M. R. C., and 1st Lieut. DeWitt S. Clark, M. R. C., on temporary duty with Surgical Team at Creil, Oise.
- April 12. 1st Lieut. George A. Leland, Jr., M. R. C., appointed Debarkation Officer.
- April 15. Miss Laura M. Beecher, R. N. A. N. C., resigned and returned to U. S.

1918:

- April 17. Disability Board: Appointed per S. O. 105 Par. 13 Base Sec. No. 2; Capt. William L. Moss, M. R. C., Capt. Richard F. O'Neil, M. R. C., and 1st Lieut. John S. Hodgson, M. R. C.
- April 18. Capt. William Allan, M. R. C., appointed Sanitary Officer.
- April 20. Capt. Robert H. Crawford, M. R. C., on temporary duty at Amiens. Returned to duty May 29.
- April 20. Capt. Harry P. Letton, E. U. S. R., reported for duty in connection with Water Supply Laboratory Service.
- April 21. Capt. William H. Mook, M. R. C., on temporary duty at American Red Cross Convalescent Hospital at Biarritz. Returned to duty May 17.
- April 24. Maj. Warren L. Babcock, M. R. C., reported to assume command of hospital, relieving Major Washburn, M. R. C., ordered to duty at American Rest Camp, Winchester, England.
- April 29. 1st Lieut. Charles O. Hurley, M. R. C., reported for temporary duty. Transferred to temporary duty, Rest Camp No. 4, May 17.
- May 4. 1st Lieut. Joseph C. Aub, M. R. C., appointed Officer of the Guard.
- May 6. Reserve Nurse Lucy N. Fletcher, A. N. C., member of Base Hospital No. 6 Unit, died at 11.30 A.M. of chronic cerebro spinal meningitis.
- May 10. Capt. Robert F. Leinbach, M. R. C., remaining officer of Unit O, reported for duty.
- May 11. 1st Lieut. Bertram H. Sawyer, D. R. C., reported for temporary duty.
- May 13. Capt. James H. Means, M. R. C., and Capt. William J. Mixer, M. R. C., transferred to American Rest Camp, Winchester, England.
- May 14. 1st Lieut. George A. Leland, Jr., M. R. C., appointed Adjutant, relieving Captain Means.
- May 14. Capt. William M. Hunter, M. R. C., appointed Registrar, relieving Captain Mixer.
- May 14. 1st Lieut. George Clymer, M. R. C., appointed Company Commander, relieving Lieutenant Leland.
- May 14. 1st Lieut. John S. Hodgson, M. R. C., appointed Debarkation Officer, relieving Lieutenant Leland.
- May 14. 1st Lieut. Paul D. White, M. R. C., appointed Admitting Officer.
- May 16. 1st Lieut. Paul D. White, M. R. C., appointed to take charge of Convalescent Officers' Pavilion (Château de Beycheville).

1918:

- May 18. Capt. Alan M. Chesney, M. R. C., reported for temporary duty. Relieved June 10.
- May 22. 1st Lieut. Harold G. Tobey, M. R. C., appointed Subscription Officer, "Stars and Stripes."
- May 22. 1st Lieut. Albert W. Ghoreyeb, M. R. C., appointed Fire Marshal.
- May 28. Capt. William H. Mook, M. R. C., appointed Admitting Officer, relieving Lieutenant White.
- June 6. Maj. Warren L. Babcock, M. R. C., commissioned Lieutenant Colonel.
- June 6. 1st Lieut. Paul D. White, M. R. C., appointed Historian.
- June 6. Capt. Hamilton W. McKay, M. R. C., on temporary duty at Camp Souge.
- June 8. Capt. Marion H. Wyman, M. R. C., appointed Base Urologist, Base Sec. No. 2, relieving Captain O'Neil. Captain O'Neil appointed Consulting Urologist, Base Sec. No. 2. Par. 78-79, S. O. 88 H. S. O. S.
- June 13. 1st Lieut. Ralph Dourmashkin, M. R. C., reported for temporary duty. Relieved June 20.
- June 13. 1st Lieut. Ralph A. Hatch, M. R. C., appointed Medical Librarian.
- June 17. 1st Lieut. William H. Gullifer, D. R. C., on temporary duty at Army Sanitary School.
- June 17. 15 nurses of Base Hospital No. 13 (Chicago Presbyterian Hospital) reported for temporary duty.
- June 19. Capt. William H. Mook, M. R. C., on temporary duty with Col. E. G. Bingham at Paris.
- June 19. 1st Lieut. Harold G. Tobey appointed Admitting Officer in absence of Captain Mook.
- June 22. 1st Lieut. Carl A. L. Binger, M. R. C., appointed in charge of Convalescent Officers' Pavilion (Château de Beycheville), relieving Lieutenant White.
- June 22. 100 nurses, 4 secretaries, 1 laboratory assistant, and 1 dietitian from Base Hospital No. 22 reported for temporary duty. 70 nurses sent to temporary duty at Base Hospital No. 3, June 27.
- June 22. 88 nurses, 24 aides, and 1 dietitian from Base Hospital No. 114 reported for temporary duty. 20 nurses sent to temporary duty at Camp Souge June 26.
- June 22. 1st Lieut. Francis H. Cloudman, S. C. N. A., transferred to Central Medical Supply Depot at Cosne.



SURGICAL AND ORTHOPEDIC WARDS

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ONE OF THE PAVILION WARDS BUILT BY THE FRENCH



U. S. ARMY HOSPITAL TRAIN
Three of our nurses are on the train doing duty



CONVALESCENT SOLDIERS WORKING ON FARM AT BASE HOSPITAL No. 6,
JULY, 1918

1918 :

June 24. Capt. Robert H. Stanley, M. R. C., Lieut. Maxwell L. Volk, M. R. C., and Lieut. Perry C. Robertson, M. R. C., and 49 enlisted men, M. D. N. A., reported for duty.

June 27. The following officers reported for duty: Maj. Homer Scott, M. C. N. G., Capt. William W. McMillan, M. R. C., Capt. John W. Bowers, M. R. C., 1st Lieut. Henry M. Burnham, M. R. C.

June 28. Capt. William L. Moss, M. R. C., relieved from duty, Base Hospital No. 6, and appointed in charge of Base Laboratory, Base Sec. No. 2, relieving Captain Kinnicutt. Maj. Homer Scott, M. C. N. G., appointed Summary Court Officer, relieving Captain Moss. Maj. Richard C. Cabot, M. R. C., appointed senior member of Disability Board by C. G. Base Sec. No. 2, relieving Captain Moss.

June 29. 1st Lieut. Paul H. Lippold, M. R. C., reported for duty.

June 30. Capt. Robert H. Stanley, M. R. C., appointed Resident Ward Surgeon, Convalescent Officers' Pavilion (Château de Beycheville), relieving Lieutenant Binger.

In addition to the above personnel changes, various groups of the nursing personnel have been on temporary duty at Ris-Orangis, the American Red Cross Surgical Dressings Bureau at Paris, Evacuation Hospital No. 1, and with the Surgical Teams.

Officers from this Unit have attended each of the monthly meetings at Paris of the Research Society of the American Red Cross.

July 1. Maj. Lincoln Davis, M. R. C., from temporary duty at G. H. Q. A. E. F., to temporary duty U. S. A. Base Hospital No. 6; July 5—on temporary duty at Evacuation Hospital No. 2.

July 2. 1st Lieut. Bertram H. Sawyer, D. R. C., transferred from temporary duty at Sursol Docks.

July 2. Capt. William H. Mook, M. R. C., transferred from temporary duty at Paris to duty at Skin Hospital, Paris.

July 4. 3 enlisted men, Medical Detachment, reported for duty at Base Laboratory at this Station.

July 6. Sgt. 1st cl. Gustave W. Everberg, M. D. N. A., commissioned 2d Lieut. Q. M. U. S. R. Assigned to duty at U. S. A. Base Hospital No. 6.

July 6. Capt. John G. Boyd, S. C. N. A., reported for duty at Base Laboratory, this Station.

July 7. 30 casual officers, M. R. C., Capt. Frank E. Darling in charge, reported for temporary duty and instruction at Casual Officers' School. Captain Darling appointed Company Commander of Casual Officers.

1918:

- July 7. Capt. R. F. Leinbach, M. R. C., on temporary duty at Central Medical Dept. Laboratory. Returned to duty July 16.
- July 7. Maj. George de Tarnowsky, M. R. C., transferred from temporary duty with American Red Cross Hospital No. 5.
- July 7. Maj. Alfred E. Cohn, M. R. C., reported for temporary (inspection) duty. Returned July 8.
- July 8. 20 casual Reserve Nurses, A. N. C., reported for duty.
- July 10. 1st Lieut. Leroy A. Hammer, M. R. C., reported for duty.
- July 10. 1st Lieut. W. H. Gullifer, D. R. C., returned to duty from Army Sanitary School.
- July 10. Sgt. Charles B. Leipold, M. T. S. D., detailed to special duty as Dispatcher at this Post, per order Hdq. Base Sec. No. 2.
- July 11. 50 enlisted men, Medical Department, reported for temporary duty.
- July 12. Miss Eunice H. Pattee and Miss Lilian B. Towner, secretaries, transferred to duty at Office of Chief Surgeon, G. H. Q., A. E. F., S. O. S.
- July 17. Capt. William C. McMillian, M. R. C., appointed Sanitary Officer, relieving Captain Allan.
- July 21. 1st Lieut. Paul H. Lippold, M. R. C., relieved from duty to duty 331st Field Hospital.
- July 22. 2d Lieut. Gustave W. Everberg, Q. M. U. S. R., appointed Quartermaster, relieving Capt. Bert Herbst, Q. M. U. S. R., for duty as Group Quartermaster.
- July 22. 1st Lieut. Horace F. Tangeman, M. R. C., on temporary duty at this Station, assigned to duty at this Station.
- July 23. Capt. Roger Kinnicutt, M. R. C., relieved from duty at this Station and assigned to duty at Base Laboratory, this Station.
- July 23. 6 Reserve Nurses, A. N. C., transferred from duty to duty at Camp Hospital No. 5.
- July 24. 1st Lieut. Raymond F. W. Campbell, M. R. C., reported for duty.
- July 25. Capt. William L. Moss, M. R. C., ordered to duty at Chief Surgeon's Office, Base Sec. No. 2, as Director of Base Laboratory.
- July 25. Capt. F. E. Darling, M. R. C., assigned from temporary duty to duty at this Station.
- July 26. 12 enlisted men, M. D. 136 F. H., reported for temporary duty. 2 enlisted men, M. D. N. A., returned to duty from temporary duty U. S. transport.
- July 27. R. N. Katherine Osborne, A. N. C., relieved from duty to report to Base Sec. No. 5 for transportation to U. S. and discharge.

1918:

July 28. 11 enlisted men, M. D. 112 A. T., reported for temporary duty.

July 30. Capt. John W. Bowers, M. R. C., and 1st Lieut. Henry M. Burnham, M. R. C., relieved for duty to duty at German Prison Camp, St. Pierre de Corps.

July 30. 1st Lieut. Grady M. Allison, M. R. C., relieved from duty to duty at Saumur.

July 31. 1st Lieut. Perry C. Robertson, M. R. C., appointed Assistant Adjutant, relieving Lieutenant Basnett.

Of the Reserve Nurses, A. N. C., and civilian employees from Base Hospitals No. 144 and No. 22 on temporary duty, 16 and 36 respectively were transferred in small groups during the month.

In addition to the 30 casual officers reporting July 7, 8 casual officers reported for temporary duty and instruction. 21 casual officers were transferred to other Stations.

Aug. 1. 1st Lieut. George Clymer, M. C., on temporary duty at Nubecourt.

Aug. 2. 1st Lieut. R. M. Walker, S. C., reported for temporary duty from duty at office of Chief Surgeon, Base Sec. No. 2. Assigned as assistant to Registrar.

Aug. 3. Capt. Henry W. S. Hayes, M. C., and 1st Lieut. James W. Reese, M. C., from temporary duty at this Station to duty at this Station.

Aug. 5. 6 Reserve Nurses, A. N. C., transferred from duty at this Station to duty on U. S. Hospital Trains Nos. 55 and 57. Capt. Zabdiel B. Adams, M. C., transferred from temporary duty at Base Hospital No. 114 to duty at that Station. Also assigned Consulting Orthopedic Surgeon to Base Section No. 2.

Aug. 6. Capt. Frank E. Darling, M. C., and 1st Lieut. Charles I. Allen, M. C., on temporary duty Base Hospital No. 3. Returned to duty August 16, 1918.

Aug. 7. Capt. Roger Kinnicutt, M. C., on temporary duty Central Med. Dept. Laboratory, at Dijon. Returned to duty August 12.

Aug. 8. Lieut. Wade S. Wright, M. C., relieved from duty with Medical Section and assigned to duty in reëmployment of patients.

Aug. 11. Maj. Archibald L. Miller, D. C., reported for duty.

Aug. 13. 60 enlisted men, Medical Detachment, reported for duty. 2 enlisted men, Medical Detachment, from duty at this Station to duty Intelligence Dept., Base Section No. 2. 1st Lieut. Arthur M. Bacon, M. C., reported for duty in Base Laboratory.

1918:

Aug. 17. Capt. Henry W. S. Hayes, M. C., 1st Lieut. Carl A. L. Binger, M. C., and 5 M. D. men on temporary duty Mimizan-le-Plage. Returned to duty August 31.

Aug. 21. Maj. R. C. Cabot, M. C., on temporary duty Casual Depot, Blois. Returned to duty August 24.

Aug. 27. Gas and Shock Team No. 104 proceeded to Evacuation Hospital No. 1 for temporary duty.

Aug. 30. 1st Lieut. L. V. Farnum, Inf., reported for duty. Assigned as Assistant Officer of Guard and C. O. of Band. 2 M. D. men transferred from duty to Saumur Artillery School.

In addition, during month of August, 1918:

25 casual medical officers reported for temporary duty and instruction; 29 medical officers were transferred to other Stations.

4 Reserve Nurses, A. N. C., reported for temporary duty; 41 nurses and nurse aides on temporary duty were transferred to other Stations.

38 Soldiers, M. D., reported for temporary duty; 75 on temporary duty were transferred to other Stations. 1 on temporary duty transferred to duty. 1 patient transferred to M. D., this Station.

Sept. 1. 1st Lieut. Carl A. L. Binger, M. C., temporary duty at Camp Souge. Returned to duty September 15.

Sept. 4. Surgical Team 2-A, comprising Capt. Robert H. Crawford, M. C., 1st Lieut. Charles I. Allen, M. C., 1st Lieut. Maxwell L. Volk, M. C., R. N. Margaret E. White, A. N. C., Pvts. 1st cl. Joseph H. Clancy and Thomas L. Taliaferro, M. D., to temporary duty at Base Hospital No. 15.

Sept. 4. Capt. Henry W. S. Hayes, M. C., to temporary duty Camp Hospital No. 4, Rest Camp No. 2. Transferred to duty Rest Camp No. 4, September 16.

Sept. 6. Capt. Frank E. Darling, M. C., appointed Officer of Guard and Acting Company Commander, relieving Lieutenant Aub.

Sept. 7. 1st Lieut. Joseph C. Aub, M. C., relieved from duty to duty Central Med. Dept. Laboratory.

Sept. 9. 1st Lieut. Andrew B. Jones, M. C., reported for duty Base Laboratory.

Sept. 12. 1st Lieut. Raymond F. W. Campbell, M. C., relieved from duty to duty at Base Hospital No. 66.

Sept. 13. 1st Lieut. William H. Sherburne, D. C., and Pvt. 1st cl. William H. Wiechert, M. D., relieved from duty to duty Hdq., 32d Div.

1918:

- Sept. 14. 1st Lieut. John S. Hodgson, M. C., appointed Reviewing Officer for Class A cases.
- Sept. 16. Capt. Fred W. Moeller, M. C., from temporary duty this Station to duty this Station.
- Sept. 19. 1st Lieut. Carl A. L. Binger, M. C., and Sgt. 1st cl. James A. Hawkins, M. D., to temporary duty Camp Hospital No. 29.
- Sept. 19. Capt. Harry P. Letton, E. C., to temporary duty at Paris. Returned to duty September 25.
- Sept. 20. 1st Lieut. Harry Gauss, M. C., to temporary duty Camp Hospital No. 20.
- Sept. 22. Detachment from Field Hospital 347, 312th Sanitary Train, consisting of Capt. Charles D. Mason, M. C., 1st Lieut. Harry R. Wheat, M. C., 1st Lieut. Willard S. Howard, M. C., and 77 soldiers, reported for temporary duty.
- Sept. 24. 1st Lieut. Roy H. Pfeiffer, D. C., and one soldier M. D., reported for duty with detachment from Field Hospital 347, 312th Sanitary Train on temporary duty at this Station.
- Sept. 24. In accordance with par. 11 Cir. 49 O. C. S., A. E. F., following Reviewing Board appointed: Maj. Addison G. Brenizer, M. C., 1st Lieut. John S. Hodgson, M. C., and 1st Lieut. Wade S. Wright, M. C.
- Sept. 25. Capt. Roger Kinnicutt, M. C., to temporary duty Camp Hospital No. 29.
- Sept. 26. Capt. Everard L. Oliver, M. C., appointed member of Disability Board, relieving Captain O'Neil. Auditing Committee for Hospital Fund, appointed per par. 12 Cir. 49 O. C. S., A. E. F.: 1st Lieut. Wade S. Wright, M. C., Corp. Asa F. Clark, M. D., Pvt. Valentine F. Hahn, M. D.
- Sept. 29. Capt. C. N. O. Leir, M. C., reported for duty as Assistant Roentgenologist. Sgts. 1st cl. George R. Chick, Edward C. Roundy, and Charles S. Glasgow, M. D., appointed 1st Lieutenants, S. C., to rank from August 30, 1918. Assigned as Assistant Registrar, Assistant Company Commander, and Assistant Sanitary and Fatigue Duty Officer respectively.
- Sept. 30. 1st Lieut. Harold G. Tobey, M. C., appointed Medical Detraining Officer. 1st Lieut. Edward C. Roundy, S. C., appointed Detraining Officer, relieving 1st Lieutenant Hodgson, Debarkation Officer. 1st Lieut. Carl A. L. Binger relieved as Assistant Company Commander.

In addition, during month of September, 1918:

5 casual medical officers reported for temporary duty and instruction; 8 medical officers were transferred to other Stations.

1918:

2 Reserve Nurses, A. N. C., reported for duty; 5 on temporary duty transferred to temporary duty at various camp hospitals; 27 on temporary duty from Base Hospital No. 114 and 1 Reconstruction Aide transferred to duty Base Hospital No. 114.

Medical Detachment soldiers: 6 reported for temporary duty; 1 patient assigned to keep duty at this Station; 2 reported for duty; 43 on temporary duty transferred to duty at other Stations; 1 on duty transferred to U. S. as Class D; 1 soldier 63d Art. C. A. C. transferred to M. D. and assigned to duty at this Station.

Oct. 1. Capt. Fred W. Moeller, M. C., and Capt. Richard F. O'Neil, M. C., commissioned Majors, M. C.

Oct. 4. Capt. Robert H. Stanley, M. C., to temporary duty at Paris. Returned to duty October 13. Capt. Roger Kinnicutt, M. C., and 1st Lieut. Carl A. L. Binger, M. C., returned to duty from temporary duty at Le Courneau.

Oct. 5. 1st Lieut. George Clymer, M. C., returned to duty from temporary duty at Base Hospital No. 117. Relieved as Company Commander by Acting Company Commander Capt. Frank E. Darling, M. C. Capt. E. L. Oliver, M. C., appointed Dermatologist Base Section No. 2, per par. 237 So. 207 H. S. O. S.

Oct. 9. Pvt. 1st cl. Allyn M. C. Berrie, M. D., of Base Hospital No. 6 Unit at this Station, died of broncho-pneumonia.

Oct. 11. 1st Lieut. James L. Laughlin, S. C., reported for duty Base Laboratory.

Oct. 13. Capt. Harry P. Letton, E. C., relieved from duty Base Laboratory and ordered to duty at Paris.

Oct. 15. 1st Lieut. George Clymer, M. C., and 1st Lieut. Ralph A. Hatch, M. C., commissioned Captains, M. C. 1st Lieut. Frederick S. Hastings, S. C., reported for duty Base Laboratory.

Oct. 17. Capt. Lawrence K. Lunt, M. C., patient in hospital, assigned to duty at this Station.

Oct. 21. 1st Lieut. George R. Chick, S. C., appointed Admitting and Discharging Officer.

Oct. 22. Capt. Robert H. Stanley, M. C., to temporary duty at Coutras.

Oct. 23. 1st Lieut. Frederick S. Hastings, S. C., to temporary duty at Perigueux. Returned to duty October 24.

Oct. 24. Maj. R. F. O'Neil, M. C., and Capt. E. L. Oliver, M. C., to temporary duty at Limoges. Returned to duty October 28. 1st Lieut. F. S. Hastings, S. C., to temporary duty at Dax. Returned to duty October 25. Capt. Ralph A. Hatch, M. C., to temporary duty at Nantes.

1918:

Oct. 27. 1st Lieut. Wade S. Wright, M. C., appointed Officer in charge of selection of B-2 patients for temporary duty at hospital personnel, in accordance with tel. C. S. O., October 25.

Oct. 29. Capt. George Clymer, M. C., relieved from duty this Station and ordered to duty at Base Hospital No. 117. 1st Lieut. Elwin O. Brown, M. C., transferred from temporary duty this Station to duty this Station. Relieved from duty at this Station for duty with B. E. F. October 31.

Oct. 30. 1st Lieut. George A. Leland, Jr., M. C., commissioned Captain, M. C. Capt. George A. Leland, Jr., M. C., Adjutant, appointed Special Reviewing Officer for the purpose of reviewing enlisted men classified as Class B for hospital personnel, in accordance with tel. O. B. S. October 25, and all officers classified as C as to availability for duty in Base Section No. 2.

Oct. 31. Capt. Everard L. Oliver, M. C., and Capt. Adelbert S. Merrill, M. C., commissioned Majors, M. C. Capt. Roger Kinnicutt, M. C., and 1st Lieut. Carl A. L. Binger, M. C., to temporary duty Central Med. Dept. Laboratory.

In addition, during month of October, 1918:

6 casual medical officers and 1 chaplain reported for temporary duty and instruction; 3 medical officers were transferred to other Stations.

4 medical officers on duty at this Station attended October meeting of Research Society of American Red Cross.

9 Reconstruction Aides and 5 Reserve Nurses, A. N. C., reported for duty.

3 nurses returned from temporary duty at Evacuation Hospital No. 2 for duty.

Medical Detachment soldiers: 1 reported for temporary duty; 1 reported for duty Base Laboratory; 1 reported for duty as dental mechanic; 1 on temporary duty transferred to duty at another Station; 2 on duty transferred to duty at other Stations.

Nov. 2. Capt. James A. Belyea, M. C., reported for duty as Neuropsychiatrist. Capt. R. A. Hatch, M. C., returned to duty from temporary duty at Nantes.

Nov. 3. 1st Lieut. Paul D. White, M. C., and 1st Lieut. Harold G. Tobey, M. C., commissioned Captains, M. C. Lieut. Col. W. L. Babcock returned from temporary duty (October 31) at Perigueux.

Nov. 4. Capt. Paul D. White, M. C., appointed Assistant Evacuation Officer. Capt. Roger Kinnicutt, M. C., and 1st Lieut. Carl A. L. Binger, M. C., returned to duty from temporary duty Central Medical Department Laboratory.

1918:

- Nov. 5. Sgt. Howard C. Maffitt, M. D., commissioned 2d Lieutenant, S. C. Assigned to duty Base Hospital No. 6 November 7. Maj. Alexander Quackenboss, M. C., reported for duty.
- Nov. 7. Capt. George A. Leland, Jr., M. C., relieved from duty this Station and appointed Commanding Officer Base Hospital No. 220, per par. 165 S. O. 240 H. S. O. S.
- Nov. 8. Capt. Robert H. Stanley, M. C., returned to duty from temporary duty at Coutras.
- Nov. 10. 1st Lieut. William P. Barron, M. C., reported for duty.
- Nov. 11. Chaplain Henry K. Sherrill, R. C., appointed 1st Lieutenant C. C., U. S. A. Assigned as U. S. A. Chaplain to this Station November 25.
- Nov. 14. Maj. Everard L. Oliver, M. C., on temporary duty at Dax. Returned to duty November 17. 1st Lieut. Franklin Benedict, M. C., reported for duty.
- Nov. 18. Capt. Bruce M. Mohler, S. C., reported for duty in Water Analysis Laboratory. Maj. Beth Vincent, M. C., 1st Lieut. DeWitt S. Clark, M. C., with nurses and enlisted personnel, Surgical Team No. 2, returned to duty.
- Nov. 19. Lieut. Col. W. L. Babcock, M. C., commissioned Colonel, M. C. Capt. Roger Kinnicutt, M. C., and Capt. Robert H. Stanley, M. C., commissioned Majors, M. C.
- Nov. 20. Capt. Robert F. Leinbach, M. C., and 1 nurse A. N. C. returned to duty from temporary duty Base Hospital No. 15.
- Nov. 21. Maj. Addison G. Brenizer, Jr., M. C., to Nice on leave. Capt. Paul D. White, M. C., to Vittel on leave. 2d Lieut. Gustave W. Everberg, Q. M. C., to Rouen on leave. Returned November 26. Capt. Robert F. Leinbach, M. C., commissioned Major, M. C. Capt. William R. Thompson, M. C., reported for duty.
- Nov. 22. Capt. Cale C. Craig, Capt. Earl L. Hendricks, Capt. Arthur H. Terry, and Capt. Frank J. Walker, M. C., reported for duty. Capt. John H. Maloney, D. C., and Assistant Sgt. Freeman L. Stoddard, M. D., reported for duty. 1st Lieut. Carl A. L. Binger, M. C., on temporary duty at Angouleme.
- Nov. 23. 2d Lieut. R. W. Daggett, Q. M. C., reported for duty as assistant to Quartermaster.
- Nov. 24. 1st Lieut. Wade S. Wright, M. C., commissioned Captain, M. C.
- Nov. 25. Capt. Frank E. Darling, M. C., commissioned Major, M. C. 1st Lieut. Albert W. Ghoreyeb, M. C., commissioned Captain, M. C.

1918:

Nov. 26. Capt. John G. Boyd, S. C., to Nice on leave.

Nov. 27. Capt. James A. Belyea, M. C., to Nice on leave. Capt. J. W. Powers, M. C., and 1st Lieut. William T. Barron, M. C., reported for duty. Maj. Richard C. Cabot, M. C., appointed Lieutenant Colonel, M. C. Claude M. Burns, M. D., commissioned 2d Lieutenant, S. C. 1st Lieut. William T. Barron, M. C., and 1st Lieut. Franklin D. Benedict, M. C., relieved from duty for transportation to U. S.

Nov. 28. 1st Lieut. John E. Haigh, M. C., relieved from duty for transportation of wounded to U. S. Capt. Robert H. Crawford, 1st Lieut. Charles I. Allen, M. C., 1st Lieut. Maxwell L. Volk, M. C., with nurse and enlisted personnel, Surgical Team 2-A, from temporary duty Base Hospital No. 15 to duty.

Nov. 29. Capt. Paul D. White, M. C., appointed Medical Supply Officer.

Nov. 30. 1st Lieut. Walter Martini, M. C., reported for one week's instruction in Urology.

In addition, during month of November, 1918:

6 medical officers on duty at this Station attended November meeting of Research Society, American Red Cross, Paris.

6 Casual Officers, including 1 chaplain, reported for temporary duty; 9 on temporary duty, including 1 chaplain, transferred to other Stations.

1 Reserve Nurse, A. N. C., reported for duty; 2 transferred to U. S. as of Class D; 10 on sick and regular leave.

1 Civilian Secretary reported for duty in Base Laboratory.

Medical Detachment soldiers: 24 reported for duty; 1 transferred to duty at this Station; 1 reported for temporary duty Dental Laboratory; 1 patient assigned to temporary duty.

Dec. 1. Detachment of Medical Department 347th Field Hospital transferred from temporary duty to duty this Station, including Capt. J. W. Powers, M. C., Capt. Charles D. Mason, M. C., 1st Lieut. Willard S. Howard, M. C., 1st Lieut. Harry R. Wheat, M. C., and 1st Lieut. Roy H. Pfeiffer, D. C. (76 enlisted men).

Dec. 1. 1st Lieut. Carl A. L. Binger, M. C., returned from temporary duty at Angouleme.

Dec. 2. Capt. Frank Brunkhorst, M. C., reported for duty. Maj. Archibald L. Miller, D. C., on sick leave at Nice. Returned December 19. Maj. Addison G. Brenizer, Jr., M. C., returned from sick leave at Nice. 1st Lieut. H. G. Simpson, D. C., transferred from temporary duty to U. S.

1918:

- Dec. 3. 2d Lieut. Emory L. Schutt, S. C., reported for duty Base Laboratory.
- Dec. 4. Maj. Robert W. Holmes, M. C., relieved from duty this Station.
- Dec. 6. 2d Lieut. Howard C. Maffitt, S. C., temporary duty to Le Courneau. Returned December 9. Maj. Ralph E. Balch, M. C., reported for duty. 1st Lieut. Frederick S. Hastings, M. C., on temporary duty Cahors and Limoges. Returned December 9. Chaplain Frederick S. Penfold, C. C., reported for duty. Transferred to duty 121st F. A. December 7.
- Dec. 7. Capt. Albert W. Ghoreyeb, M. C., transferred from duty to Casual Officer Depot for assignment to duty as translator for the Peace Commission. Capt. Paul D. White, M. C., returned from sick leave at Vittel.
- Dec. 7. 1st Lieut. Walter Martini returned to proper Station. Capt. George A. Leland, Jr., M. C., relieved from duty as Commanding Officer Base Hospital No. 220 and assigned to duty at this Station, per par. 207 S. O. 270 H. S. O. S.
- Dec. 8. 1st Lieut. William H. Gullifer, D. C., on leave, St. Aignan. Returned December 21. 1st Lieut. Maxwell L. Volk, M. C., appointed Special Admitting Officer.
- Dec. 9. Capt. Lawrence K. Lunt, M. C., on leave, London, England. Returned December 25.
- Dec. 10. 1st Lieut. Thomas M. Barber, M. C., reported for temporary duty from patient in hospital.
- Dec. 11. Capt. James F. Coupal, M. C., reported for temporary duty as pathologist Base Laboratory.
- Dec. 12. Capt. John G. Boyd, S. C., and Capt. James A. Belyea, M. C., returned from sick leave, Nice. 1st Lieut. Ralph P. Heard, S. C., appointed Fire Marshal vice 1st Lieut. Albert W. Ghoreyeb. 1st Lieut. E. C. Roundy, S. C., appointed Assistant Fire Marshal vice 1st Lieutenant Heard.
- Dec. 13. Chaplain G. S. McGourty reported for duty. Lieut.-Col. R. C. Cabot on leave. Returned December 21.
- Dec. 15. 2d Lieut. M. D. Wilson, Q. M. C., reported for temporary duty. 1st Lieut. Arthur M. Bacon, M. C., and 2d Lieut. Emory L. Schutt, S. C., on temporary duty Embarkation Camp, Gironde.
- Dec. 16. Capt. George A. Leland, Jr., M. C., appointed Acting Commanding Officer during absence of Colonel Babcock, on leave. 1st Lieut. D. Basnett, S. C., appointed Acting Adjutant during absence of Colonel Babcock, on leave.

1918:

- Dec. 17. Col. W. L. Babcock, M. C., Commanding Officer, on leave at Nice. Returned December 27. Capt. David A. Walker, M. C., and 1st Lieut. James W. Sillaman, M. C., reported for duty.
- Dec. 18. Maj. W. F. Verdi, M. C., reported for temporary duty.
- Dec. 19. Capt. John G. Boyd, S. C., on temporary duty Camp Hospital No. 66.
- Dec. 20. 1st Lieut. Roland A. Davison, E. C., reported for duty.
- Dec. 21. Maj. Ralph E. Hatch, M. C., on leave.
1st Lieut. Samuel A. White, M. C., on temporary duty, Embarkation Camp, Gironde. 2d Lieut. Claude M. Burns, S. C., and 2d Lieut. H. C. Maffitt, S. C., on temporary duty Coutras. Returned December 24.
- Dec. 25. Maj. Robert H. Stanley, M. C., and W. F. Verdi, M. C., Capt. Thomas Green, M. C., Frank A. Walker, M. C., and David A. Walker, M. C., and 1st Lieuts. Harry L. Wheat, M. C., Maxwell L. Volk, M. C., Edward J. Weadock, M. C., James W. Sillaman, M. C., and Capt. Charles D. Mason, M. C.—temporary duty Embarkation Camp, Genicart. Returned December 27. Capt. Cale C. Craig, M. C., on temporary duty at Andre de Cubzac.
- Dec. 26. Capt. John H. Maloney, D. C., on leave.
- Dec. 27. Maj. Frederick W. Moeller, M. C., Capt. Earl L. Hendricks, William T. Thompson, and Frank O. Brunkhorst, M. C., transferred to duty Hdq. Base Section No. 1, A. E. F.
- Dec. 27. Capt. George A. Leland, Jr., M. C., appointed Commanding Officer Convalescent Pavilion for Officers, relieving Major Anderson.
- Dec. 28. Maj. Alexander Quackenboss, M. C., and Capt. Charles N. O. Leir, M. C., transferred to Casual Officers' Camp for return to U. S. Maj. Homer Scott, M. C., transferred to duty, Hdq. Base Section No. 1. Maj. Richard F. O'Neil and Maj. Beth Vincent, M. C., on leave at Rouen.
- Dec. 29. Capt. Eugene V. Powell, M. C., reported for duty as roentgenologist. Maj. Robert H. Stanley, 1st Lieuts. Leroy A. Hammer, Willard S. Howard, Maxwell L. Volk, and Harry R. Wheat, M. C., transferred to Hdq. Base Section No. 1. 1st Lieut. J. S. Hodgson, M. C., in charge of preparation of index of diseases of admissions to this Station.
- Dec. 30. Capts. Arthur H. Terry, James A. Belyea, James W. Powers, 1st Lieuts. James E. Reese, and Roland A. Davison, M. C., on temporary duty Embarkation Camp, Gironde. Maj. E. L. Oliver, M. C., appointed officer in charge of carrying out provisions of

1918:

Cir. No. 61 C. S. O. 2d Lieut. M. C. Maffitt, S. C., on temporary duty, Perigueux. Returned December 31. Capt. Bruce M. Moehler, S. C., on temporary duty, Angouleme.

Dec. 31. Maj. Charles L. G. Anderson, M. C., on leave at Nice. Capt. Charles D. Mason, M. C., and 1st Lieut. Edward G. Wendock, M. C., transferred to duty Hdq. Base Section No. 1. Chaplain William M. McGuire, C. C., transferred to Hdq. Base Section No. 2 for assignment to transport duty.

In addition, during month of December, 1918:

57 nurses and 2 aides reported for duty; 2 on duty transferred to duty at other Stations; 15 on temporary duty transferred to duty Base Hospital No. 13; 3 transferred to United States; 45 on sick and regular leave. 4 secretaries on leave.

Medical Detachment soldiers: 8 reported for duty; 1 reported for temporary duty; 2 on duty transferred to duty other Stations; 5 on duty transferred to temporary duty other Stations; 6 returned from temporary duty to duty; 1 transferred to Prison Camp; 3 transferred to United States; 40 on leave.

1919:

Jan. 1. Capt. H. G. Tobey, M. C., and Chaplain H. K. Sherrill, C. C., on leave at Rouen. Returned January 6. Capt. J. H. Maloney, D. C., returned from leave. Transferred to United States January 5.

Jan. 2. Maj. W. F. Verdi, M. C., transferred to United States.

Jan. 3. Maj. R. F. O'Neil and Beth Vincent, M. C., returned from leave. Capt. Paul D. White, M. C., relieved from duty as Medical Supply Officer.

Jan. 4. Capt. George Clymer, M. C., reported for duty with U. S. A. Base Hospital No. 6.

Jan. 6. 1st Lieut. P. C. Robertson, M. C., appointed Commanding Officer of Officers' Convalescent Pavilion (Château de Beycheville), relieving Captain Leland for return to duty as Adjutant.

Jan. 7. 1st Lieut. Paul H. Lippold, M. C., returned to duty from temporary duty with Field Hospital No. 331.

Jan. 8. Lieut. Col. Lincoln Davis, M. C., returned to duty from temporary duty with Field Hospital No. 331.

Jan. 9. 1st Lieut. Horace F. Tangeman, M. C., appointed Commanding Officer of Officers' Convalescent Pavilion (Château de Beycheville), relieving Lieutenant Robertson. Capt. William Allan, M. C., and 1st Lieut. Charles S. Glasgow, S. C., on leave at Ste. Manehould. Lieutenant Glasgow returned to duty January 20.

1919 :

- Jan. 10. Maj. R. F. Leinbach, M. C., on leave at Nice. Returned January 20. Capt. George Clymer, M. C., appointed in Charge of Detachment of Nurses for Embarkation and Travel to United States. 1st Lieut. DeWitt S. Clark, M. C., appointed Medical Officer to Medical Detachment for Embarkation and Travel to United States. 1st Lieut. George R. Chick, S. C., appointed Assistant Company Commander. Maj. James H. Means, M. C., reported for duty. Appointed Officer in Charge of Embarkation of personnel of Unit.
- Jan. 11. Maj. A. S. Merrill, M. C., on leave at Pau. Returned January 21. Capts. Arthur H. Terry, M. C., James A. Belyea, M. C., James W. Powers, M. C., and 1st Lieuts. Roland A. Davison, M. C., and James W. Reese, M. C., returned to duty from temporary duty Embarkation Camp, Gironde.
- Jan. 12. Capt. Paul D. White, M. C., on leave at Rouen. Returned January 20.
- Jan. 12. 1st Lieut. V. E. Van Kirk, M. C., reported for temporary duty with U. S. A. Base Hospital No. 6, transferred to temporary duty with U. S. A. Base Hospital No. 208, January 17.
- Jan. 13. Chaplain Gerald S. McGourty, C. C., transferred to duty at Castres. Capt. Thomas S. Green, M. C., reported for duty with U. S. A. Base Hospital No. 6.
- Jan. 14. Chaplain H. K. Sherrill, C. C., transferred to duty Hdq. 1st Army. 1st Lieut. Ralph P. Heard, S. C., appointed Baggage Officer for Embarkation and Travel of Unit to United States.
- Jan. 15. Capts. Patrick Griffin, M. C., James F. Coupal, M. C., John G. Boyd, S. C., Harry Gauss, M. C., Bruce M. Moehler, S. C., 1st Lieuts. Samuel A. White, M. C., Arthur M. Bacon, M. C., Andrew B. Jones, M. C., James L. Laughlin, S. C., Frederick S. Hastings, S. C., Charles L. Cassell, D. C., R. H. Pfeiffer, D. C., and 2d Lieuts. Claude M. Burns, S. C., Howard C. Maffitt, S. C., and Emory L. Schutt, S. C., transferred to duty with U. S. A. Base Hospital No. 208.
- Jan. 16. 2d Lieut. Ralph W. Daggett, Q. M. C., transferred to duty with U. S. A. Base Hospital No. 208. Maj. Roger Kinnicutt, M. C., reported for duty with U. S. A. Base Hospital No. 6.
- Jan. 17. 1st Lieut. Thomas M. Barber, M. C., transferred to duty with 49th Co. 20th Engineers. Capt. William M. Hunter, M. C., from temporary duty at Hdq. S. O. S. to leave at Ste. Menehould. Returned January 31.
- Jan. 19. Capt. F. C. Irving, M. C., returned to duty U. S. A. Base Hospital No. 6 from temporary duty with Field Hospital No. 331.

1919:

Jan. 21. Capt. Wade S. Wright, M. C., on leave at Rouen. Returned January 24. Capt. Harry Gauss, M. C., transferred to duty with Base Laboratory, Base Section No. 2, revoking order January 15.

Jan. 22. Maj. C. L. G. Anderson, M. C., returned from sick leave.

Jan. 23. Lieut. Col. R. C. Cabot, M. C., relieved from duty and transferred to United States.

Jan. 24. Capt. H. C. Marble, M. C., and 1st Lieut. D. Basnett, S. C., on leave at Digne.

Jan. 25. Maj. William L. Moss, M. C., reported U. S. A. Base Hospital No. 6 for duty. 1st Lieut. Charles L. Allen, M. C., and 1st Lieut. James M. Davis, M. C., on leave at Pau.

Jan. 27. 1st Lieut. Charles S. Glasgow, S. C., appointed Assistant Company Commander.

Jan. 28. Capt. Raymond H. Spivy, M. C., reported for return to United States with U. S. A. Base Hospital No. 6.

Jan. 29. Capts. Robert H. Crawford, M. C., Paul D. White, M. C., 1st Lieuts. Carl A. L. Binger, M. C., John S. Hodgson, M. C., DeWitt S. Clark, M. C., transferred to 1st Replacement Depot, St. Aignan, for discharge from the Service, for service with American Red Cross Balkan Commission. 1st Lieuts. George R. Chick and Edward C. Roundy, S. C., on leave at Nice. Capt. F. C. Irving, M. C., appointed Acting Company Commander during absence of Lieutenant Roundy.

Jan. 30. 2d Lieut. G. W. Everberg, Q. M. C., on leave at Rouen.

Jan. 31. Maj. Archibald L. Miller, D. C., on temporary duty at Tours.

In addition, during month of January, 1919:

3 nurses reported for duty; 3 returned to duty from temporary duty Evacuation Hospital No. 1; 3 Reconstruction Aides and 2 nurses on duty transferred to duty at other Stations; 4 nurses discharged from Service for service with Red Cross; 1 dietitian discharged from Service for service with Y. M. C. A.; 1 secretary on duty transferred to duty U. S. A. Base Hospital No. 57; 47 nurses on sick and regular leave.

Medical Detachment soldiers: 13 reported for duty; 4 transferred from duty to temporary duty other Stations; 8 returned to duty from temporary duty other Stations; 1 transferred from duty to duty other Station; 8 transferred to duty with U. S. A. Base Hospital 208; 5 on temporary duty transferred to temporary duty with U. S. A. Base Hospital 208; 4 transferred to Prison Camp, St. Loubes, as prisoners; 1 transferred to United States; 14 transferred to U. S. A. Base Hospital 208 for return to the United States on account of physical disability; 49 on leave.

1919 :

- Feb. 1. Capt. William Allan, M. C., Capt. William M. Hunter, M. C., and Capt. Wade S. Wright, M. C., returned from leave of absence. Maj. Addison G. Brenizer, Jr., M. C., proceeded on leave of absence. Capt. Arthur H. Terry, M. C., returned from temporary duty at Embarkation Camp, Genicart. Maj. Ernest C. Lee, M. C., transferred from temporary duty Base Hospital No. 6 to temporary duty Base Hospital No. 208.
- Feb. 2. 2d Lieut. Melvin D. Wilson, Q. M. C., from temporary duty Base Hospital No. 6 to duty Hdq., Agricultural and Educational Work, Base Section No. 2.
- Feb. 3. Capt. George Clymer, M. C., and 1st Lieut. Ralph P. Heard, S. C., proceeded on leave of absence. Capt. Henry C. Marble, M. C., 1st Lieut. Douglas Basnett, S. C., and 2d Lieut. Gustave W. Everberg, Q. M. C., returned from leave of absence. Capt. James A. Belyea, M. C., transferred to duty at Evacuation Hospital No. 12, Treves, Germany.
- Feb. 5. Capt. Wade S. Wright, M. C., returned from leave of absence.
- Feb. 6. Capt. Eugene V. Powell, M. C., transferred to duty Camp Hospital No. 68, Bourges, France. Maj. Ralph E. Balch, Frank E. Darling, M. C., Capt. Cale C. Craig, Arthur H. Terry, David A. Walker, William W. McMillan, James W. Powers, Frank J. Walker, M. C., 1st Lieuts. Roland A. Davison, Paul H. Lippold, James W. Reese, Horace F. Tangeman, and James W. Sillaman, M. C., transferred to duty Base Hospital No. 208.
- Feb. 8. Capt. Hamilton W. McKay, M. C., returned from temporary duty Bassens Docks. Capt. George Clymer, M. C., and 1st Lieuts. Charles I. Allen, James M. Davis, M. C., and 1st Lieut. Ralph P. Heard, S. C., returned from leave of absence.
- Feb. 9. 1st Lieuts. George R. Chick and Edward C. Roundy, S. C., returned from leave of absence. Capt. George Clymer, M. C., and 1st Lieut. Perry C. Robertson, M. C., transferred to Savenay, for return to U. S. Maj. Charles L. G. Anderson, M. C., transferred to Hdq. Base Section No. 1.
- Feb. 11. Maj. Addison G. Brenizer, M. C., returned from leave of absence.
- Feb. 12. Capt. Hamilton W. McKay, M. C., transferred to duty Hdq. Base Section No. 2. Capt. James P. Matheson, M. C., and 1st Lieut. Archie A. Barron, M. C., returned from temporary duty. 1st Lieut. Archie A. Barron, M. C., transferred to Base Hospital No. 208 for return to U. S. on account of disability.
- Feb. 13. Capt. Wade S. Wright, M. C., transferred to St. Aignan for discharge from service to join A. R. C. Commission to Poland.

1919:

Feb. 14. Maj. Addison G. Brenizer, Roger Kinnicutt, Robert F. Leinbach, James H. Means, Adelbert S. Merrill, William M. Moss, Everard L. Oliver, Richard F. O'Neil, Beth Vincent, M. C., Capt. William Allan, Ralph A. Hatch, William M. Hunter, Frederick C. Irving, Henry C. Marble, James P. Matheson, Raymond M. Spivey, Harold G. Tobey, Henry G. Turner, M. C., 1st Lieuts. Charles I. Allen, James M. Davis, M. C., George R. Chick, Ralph P. Heard, S. C., William H. Gullifer, D. C., and 2d Lieut. Gustave W. Everberg, Q. M. C., transferred to U. S. on *U. S. S. Abangarez*. 1st Lieut. Carl Leo, Infantry, transferred to Base Hospital No. 208.

Feb. 17. Capt. Marion H. Wyman, M. C., reported for duty and proceeded on leave of absence.

Feb. 18. Maj. Archibald L. Miller, D. C., transferred to Bordeaux Embarkation Camp for return to U. S.

Feb. 20. Capt. Thomas S. Green, M. C., transferred to duty Camp Hospital No. 102, Virelands, France.

Feb. 23. Capt. Marion H. Wyman, M. C., returned from leave of absence.

In addition, during month of February, 1919:

2 Nurses reported for duty; 79 Nurses, 8 Reconstruction Aides, and 1 Civilian Secretary transferred to duty Base Hospital No. 208; 69 Nurses and 3 Civilian Secretaries returned to U. S.

Medical Detachment soldiers: 1 reported for duty; 209 transferred to Base Hospital No. 208 for duty; 2 transferred to Base Hospital No. 208 for return to U. S. on account of disability; 2 transferred to St. Loubes Prison Camp as prisoners; 1 returned to U. S.; 1 transferred to Intelligence Department; and 7 transferred to Beau Desert Hospital Center to await orders for discharge from service for duty with American Red Cross Balkan Commission.

March 4. Capt. Marion H. Wyman, M. C., transferred to University of Bordeaux.

In addition, during month of March, 1919:

Medical Detachment soldiers: 4 reported for duty; 7 were out of organization; 1 died at sea returning to U. S.

April 5. 1st Lieut. Charles S. Glasgow, S. C., transferred to Camp Lee, Det. Base Hospital No. 6 at Camp Merritt, New Jersey. 1st Lieut. Edward C. Roundy, S. C., transferred to Base Hospital, Camp Merritt, New Jersey, as patient.

April 9. Lieut. Col. Lincoln Davis, M. C., Capt. G. A. Leland, Jr., M. C., and 1st Lieut. Douglas Basnett, S. C., transferred to 151st Depot Brigade, unassigned. Enlisted men remaining with organization (94) mustered out.



ROOFS OF THE FRENCH BARRACKS



THE CHATEAU CRESPY

In addition, during month of April, 1919:

Medical Detachment soldiers: One transferred to Base Hospital, Camp Merritt, New Jersey, as patient; 61 transferred to other detachments for demobilization; 2 transferred to Base Hospital, Camp Devens, Massachusetts, as patients.

IV. MEDICAL SERVICE

First patients admitted August 21, 1917.

In general, through the winter the hospital was very busy with acute infectious diseases, especially lobar pneumonia among the negro stevedores. Various contagious diseases—measles, scarlet fever, mumps, chicken pox, diphtheria, and epidemic cerebro-spinal meningitis—have been treated during winter.

Since May, 1918, Surgical Service has been more active, on account of the convoys coming in from the front, illness being less frequent. Much of the attention of the Medical Service is now taken up with gassed cases.

Oct. 1, 1917—

Number of patients in hospital, 160; number of beds, 200.

Jan. 1, 1918—

Number of patients in hospital, 325; number of beds, 500.

April 1, 1918—

Number of patients in hospital, 574; number of beds, 1,000.

June 1, 1918—

Number of patients in hospital, 864; number of beds, 1,800.

June 30, 1918—

Number of patients in hospital, 1,384; number of beds, 2,200.

Number of surgical operations performed during October, November, and December, 1917, 231.

Number of surgical operations performed during January, February, and March, 1918, 339.

Number of surgical operations performed during April, May, and June, 1918, 535.

The clinical and bacteriological laboratories were established by Captains Moss and Kinnicutt, and throughout the winter and spring have been very active. The work on the meningitic cases, grouping and standardization of various antimeningococcus sera, was of special value and interest. Lieutenant Binger coöperated in this investigation. The pathological material has been large; 117 post-mortem examinations have been made.

On March 1 the hospital laboratories were made the site of the Base Laboratory of Base Section No. 2, S. O. S.

July 1, 1918—July 31, 1918

The striking thing for the month of July is the emptying of the pneumonia, meningitis, scarlet fever, mumps, and measles wards. During the month there have been only occasional cases of these infections. The Medical Wards are now filled with a rather mild type of poisoning by gas, chiefly mustard gas, and by a fairly large group of war neuroses.

A system of tests has been inaugurated by Lieutenant White to determine the fitness of men who have been gassed to return to the Front. By seeing how long they can hold their breath, how hard they can blow, how they bear walking or running with gas masks on, and by watching baseball games organized between gas wards, it has been possible to check the statements of patients as to their degree of disability.

Dysentery, chiefly acute bacillary, with occasionally a chronic case of amoebic, has begun to turn up. The cases so far have been very slight and there have been no fatalities.

There has been a remarkable absence of kidney trouble and a very small amount of tuberculosis and diseases of the stomach.

Considerable effort has been devoted to the problem of providing convalescent patients with proper employment.

Number of admissions to hospital during July, 3,115.

July 31. Number of patients in hospital, 2,332. Number of beds, 2,600.

Number of surgical operations during July, 325.

August 1-31, 1918

During the month of August, we have had considerable increase in the amount of dysentery, almost wholly of the bacillary type, and mild.

The most striking and important characteristic in the Medical Service during August, however, has been the epidemic of short febrile cases, of unknown origin, some of which Captain Kinnicutt has isolated with the meningococcus type C. This has prevailed to a considerable extent, both among the personnel and patients, small epidemics starting in surgical wards occasionally. The cases have been mild, although the fever has usually run from four to eight days. A few cases of bronchopneumonia, probably of this origin, have also been seen.

The exercises and tests inaugurated by Lieutenant White for the training of patients poisoned by gas has now been extended, to cover convalescents from infectious diseases and surgical troubles, so that over 500 cases are now included in this training battalion, which is under the care of Lieutenant White, with the assistance of Lieutenants Thorne and Hawley. The system is capable of considerable further development.

September 1-30, 1918

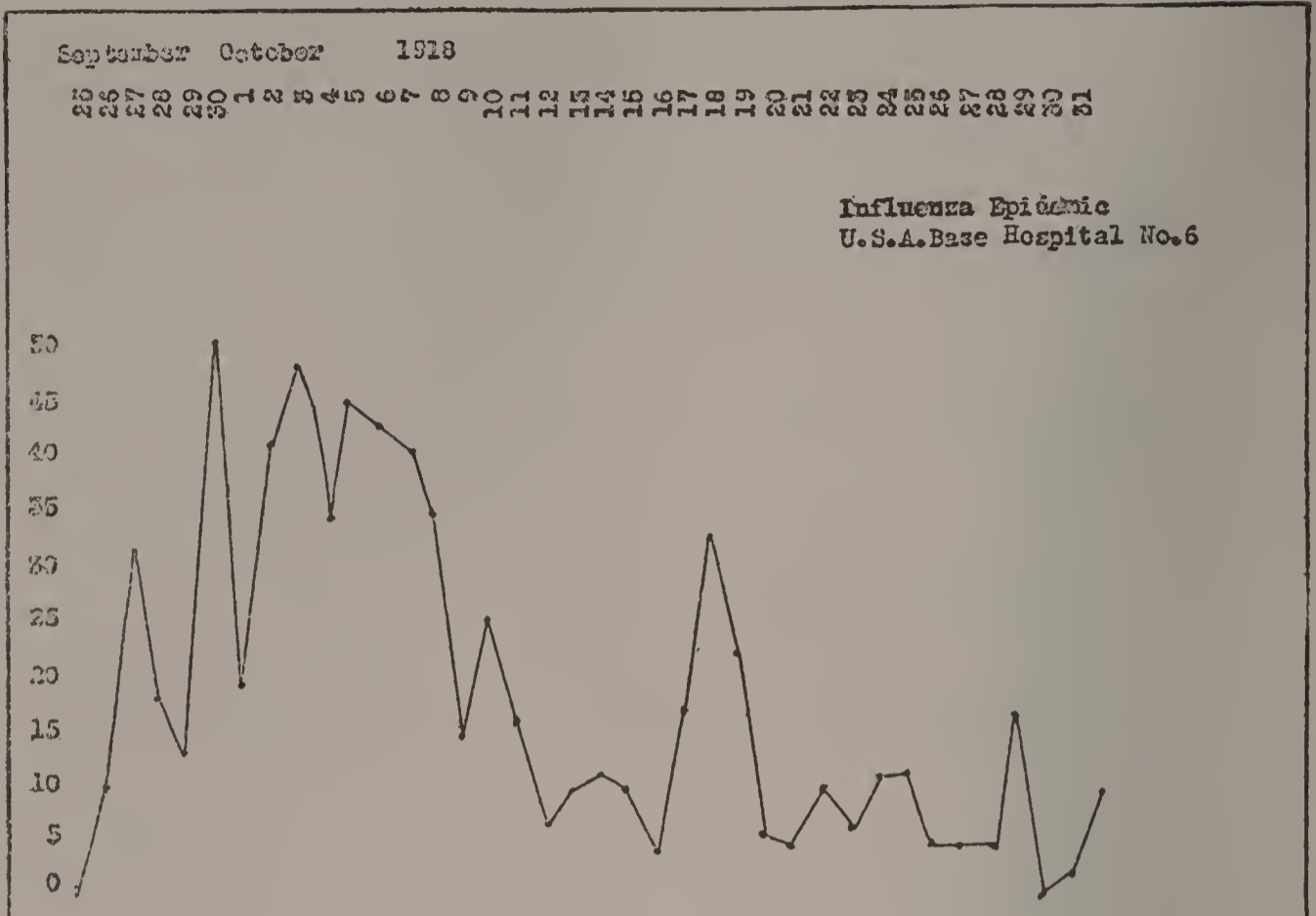
The epidemic of short fevers reported in the history for August, 1918, became much more serious and extensive during the month of September. Whereas in the earlier months many of these fevers were over in three days, the majority of them run from four to eight days, and the incidence of bronchopneumonia has very much increased. Indeed, a great majority of the cases probably had some infection of the lungs. About 10 per cent of the cases were very serious, and nearly that number proved fatal, the autopsy showing in every case extensive bronchopneumonia. During the month of September, however, practically no cases of meningitis were seen—a notable fact, in view of Captain Kinnicutt's finding of the meningococcus in the blood and lungs of the prevailing epidemic cases.

Almost no new cases of gas poisoning and few medical cases outside of the prevailing epidemics were received during the month of September. Dysentery decreased in amount and was almost wholly bacillary in type.

Up to the end of the month the personnel of the hospital had not been extensively attacked by any of the epidemics prevailing among the patients.

October 1-31, 1918

The epidemic referred to in the history of the last month reached its height during the first week of October, declining sharply during the second week, and at the end of the month was nearly extinct, so far as concerns cases originating in our own Unit or brought here from the Base. This corresponds roughly with the condition of things the world over. Indeed, there seems to have been only a few weeks' difference between dates on which the epidemic began in each of the countries of the world. As one attack appears to give immunity, we do not anticipate a renewal of this epidemic from local sources, though the hospital beds may again be occupied by cases of influenza brought in from epidemics originating elsewhere. The cases originating from our own Unit, and, therefore, seen early and promptly put to bed, have, as a rule, been mild. The severest cases have been those in persons debilitated either by the nature of their work or by the travel to which they have been subjected on their way to the hospital. In our own Unit, very few cases occurred among those directly in contact with influenza patients, while chauffeurs, cooks, and others not in immediate contact with the sick, were quite frequently affected. On the other hand, propinquity in sleeping quarters seems to be a fine source of danger, and the spread of the disease could often be traced to this. The course of the epidemic is indicated in the following chart.



Towards the end of the month, cases of meningitis began to appear. In this, as in all parts of the A. E. F., in the treatment of these cases, as in the epidemic of last winter, a very noted difference was apparent between the different types of therapeutic serum furnished.

November 1-30, 1918

As predicted in the history of last month, the epidemic which attacked us during October did not recur in November, though a few cases were admitted from time to time, all very light, and few, if any, such as would be recognizable outside of an epidemic. Approximately 63 enlisted men, 18 nurses, and 8 officers of our own Command were attacked—approximate figures being given because of the number of cases in which the diagnosis was doubtful. Among these cases there was one death, that of Pvt. 1st cl. Allyn M. C. Berrie, M. D., on October 9. We have had no recognizable lapses or second attacks, nor has the amount of meningitis been such as to suggest any connection between our influenza epidemic and that disease. A few cases of meningitis have appeared each week during the month, but there has been no epidemic and no bunching of cases from any one Command or locality.

The outstanding feature of the month, in contrast with the corresponding month in 1917, has been the absence of any considerable number of exanthemata. At this time last year our wards contained

many cases of scarlet fever, measles, and mumps. This year we have had practically no scarlet fever or measles and only one group of mumps cases, all coming from a single locality, the early part of the month; after that, practically none at all. These facts, together with the steady emptying out of the patients carried over from the previous month, have brought our numbers steadily down. The only cases taken in during the latter part of the month represented the ordinary run of sick cases arising in the Base. As yet, we have had no large epidemic of pneumonia. On the other hand, cases of typhoid fever began to appear toward the end of the month in greater numbers than we have had at any time since we were established, although the number of cases has never been high.

December 1-31, 1918

The decrease in our numbers during December has not been great, owing to the accumulation of unevacuated A and D patients. The former have been gathered into companies and segregated in separate wards without nurses or orderlies. In these "Casual Camps" the men are not treated as patients, though a sick call is held, as in any other military unit.

B patients have also been segregated in separate wards for greater convenience in evacuation.

There has been no recurrence of the September-October epidemic, though scattered cases have been given that diagnosis.

The number of cases of pneumonia and meningitis has been also notably small, so that we have had no "pneumonia ward"—a striking contrast with last year and with our expectations.

For the most part our ward space has been taken up with cases of rheumatism, bronchitis, flat foot, hernia, etc., sent down from hospitals nearer the front. Most of these cases are for evacuation to the United States.

V. SURGICAL SERVICE

July 1, 1918—July 31, 1918

In anticipation of the great increase in the number of surgical cases, the various departments of the Surgical Section were enlarged and re-grouped at the beginning of July, and a new administrative system inaugurated, which has proved very effective, especially in regard to immediate attention to and close supervision of all cases.

Eighty per cent of the cases treated came under the head of war surgery. In this connection, secondary closure of at least 75 per cent of the wounds, before the tenth day, and a qualitative culture of the wounds to exclude all bacteria, except the ordinary skin staphylococci, has been followed with excellent results. In cases where more virulent

bacteria were found, the Carrel method of employing Dakin solution has been carried out in detail.

Cases of general surgery included bone transplanting, gall bladder, stomach, goitre, brain, spinal cord, and nerve surgery, as well as the more frequent cases of appendicitis, hernia, hemorrhoids, etc.

August 1-31, 1918

Number of admissions to Surgical Service during the month, 2,475.

Number of operations, 673.

Total number of deaths in the Surgical Service, 7; 4 of the deaths with operative intervention.

The operations have been chiefly secondary wound closures, of which there have been 401. Other operations include: gastroenterostomy, thyroidectomy, trephining skull, blood transfusion, plastic operations, redressment of fractures, extraction of foreign bodies, appendectomy, herniotomy, thoracotomy, tonsillectomy, etc.

There has never been a death among about 700 secondary wound closures, of which the majority, 401, were done during August.

The number of cases received, operated upon, and discharged is higher than in any previous month in the hospital's existence; the mortality percentage is the lowest.

On July 28 a small group of surgical cases (American) was sent to the French Cure Agricole at Carona, under the supervision of Lieut. Col. J. Bergonie; and on August 5 this experiment was extended to the French Cures Agricoles at Martillac and Preignac, groups being sent to each of these Cures at various times during the month.

Number of admissions to hospital during August, 3,165.

Aug. 31. Number of patients in hospital, 2,971.

Normal capacity, 2,600 beds.

September 1-30, 1918

During the month of September the surgical work was much lighter than during the several preceding months. Its general character was similar to that in August. Of 2,330 cases admitted to the hospital during the month, 594 were surgical. 594 operations were performed. Number of deaths on Surgical Service, 8.

Number of admissions to hospital during September, 2,330.

Sept. 30. Number of patients in hospital, 2,996.

Normal capacity, 2,750.

Largest number of patients in hospital during the month (Sept. 7), 3,134.

October 1-31, 1918

The receipt of large numbers of wounded made the Surgical Service busy again after its relatively quiet month of September. A change occurred this month in the policy regarding the work of the Disability Board, whereby surgical cases which formerly were kept in the hospital for operation are now sent directly to the United States. 382 operations were performed.

Number of admissions to hospital during October, 4,378.

Oct. 31. Number of patients in hospital, 3,510.

Normal capacity, 3,000.

Largest number of patients in hospital during the month (Oct. 28), 4,233.

November 1-30, 1918

1,009 surgical cases were received during the month of November—a marked falling off from the previous month. 446 operations were performed, mostly secondary sutures of wounds. The mortality rate on the Surgical Service has remained, as formerly, a little less than 1 per cent, and in operated cases a little more than $\frac{1}{2}$ per cent.

Cases were evacuated to the United States rapidly throughout the month, in convoys of 100 to 400. Early in the month it became impossible to evacuate A cases, which accordingly have accumulated and been segregated in convalescent wards, without nursing, or medical records.

Number of admissions to hospital during November, 2,745.

Nov. 30. Number of patients in hospital, 2,311. Normal capacity, 3,000.

Largest number of patients in hospital during the month (Nov. 12), 4,319.

December 1-31, 1918

During December there was a considerable reduction in the number of cases received. The maximum number of surgical cases at any one time never exceeded a thousand. There were only 72 operations performed during the entire month, less than any month since December of last year. The large majority of surgical cases received were sent from other hospitals for classification and return to the United States. Only urgent operations, such as for acute appendicitis, abscess, empyema, and hemorrhage were performed. At the end of December, 3,567 operations had been performed in this hospital, out of 17,466 cases on the Surgical Service.

Number of admissions to hospital during December, 2,114.

Dec. 31, 1918. Number of patients in hospital, 1,503. Normal capacity, 3,000.

Largest number of patients in hospital during the month (Dec. 4), 2,338.

January 1-31, 1919

Number of operations January 1-14, 30.

Number of admissions January 1-14, 1,454.

Jan. 14. Number of patients in hospital, 2,128. Normal capacity, 3,000.

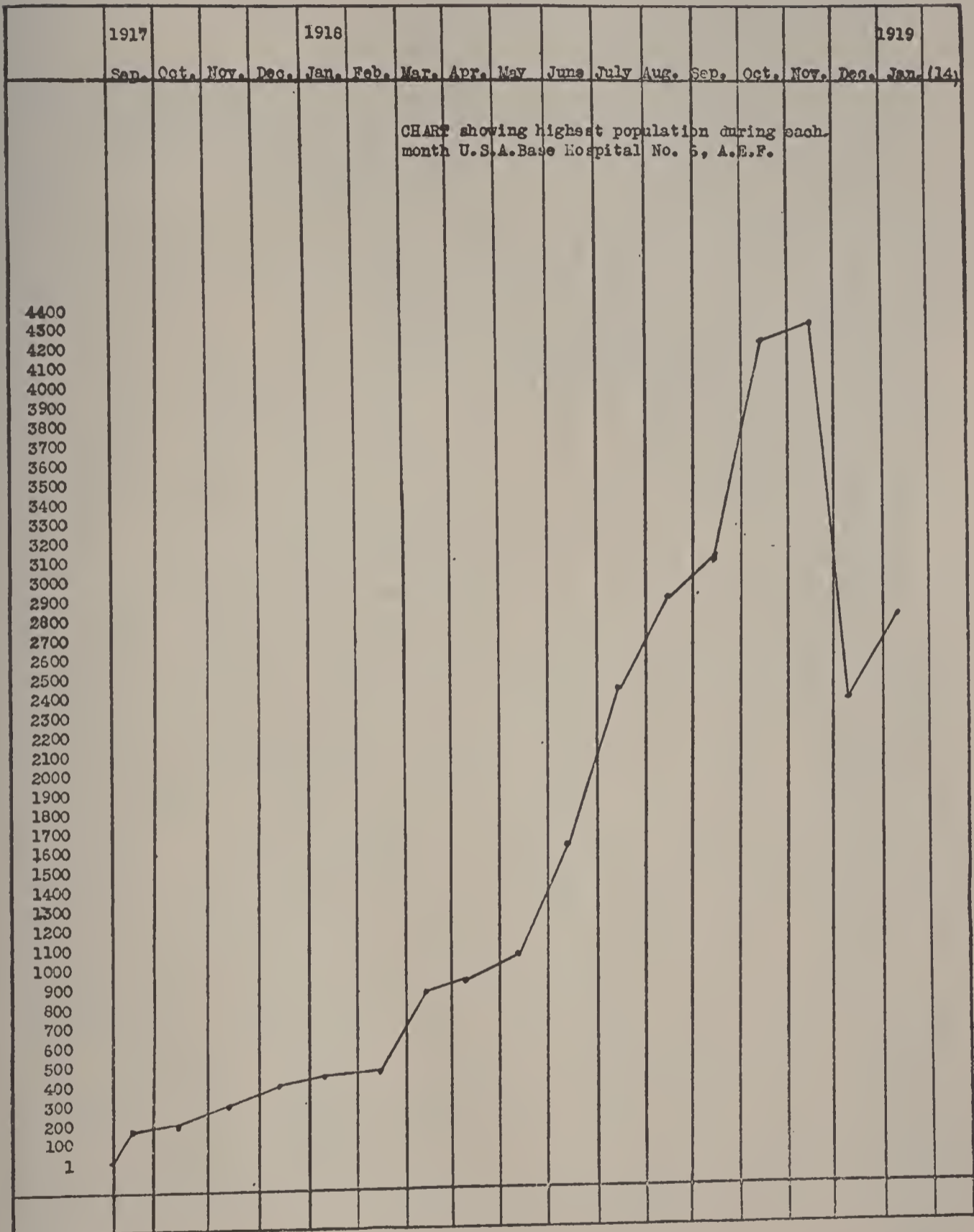
Largest number of patients in hospital during January 1-14 (Jan. 11), 2,817.

Total number of admissions 1917-1918-1919: American, 25,576; British, 221; French, 359.

The following chart shows highest population at any one time during each month.

Total number of operations 1917-1918-1919, 3,597.

Total number of deaths 1917-1918-1919, 434.



STATISTICAL SURVEY OF PATIENTS

J. H. MEANS

A STATISTICAL survey of a single hospital is of interest chiefly to the personnel of that hospital. From a broader point of view such statistics are largely meaningless. To be of general interest they would have to be correlated to such factors as the size of the expeditionary force, the distance from the front, the number of troops in the hospital area, the activity on the front, and the general prevalence of epidemic disease.

To the hospital personnel, however, statistics are of interest, for they show in an exact way three things well worth remembering. These being the amount of work done, the kind of work done, and the relation of active to inactive times.

The amount of work done can perhaps best be shown graphically. In Fig. 1 the columns show by weeks the number of patients in hospital. It will be seen that during the first winter the number gradually rose to five hundred. The total number of official beds, that is to say, the number of beds reported to the Chief Surgeon as ready for occupancy, is shown in Fig. 1 by the heavy black line. The number of available beds kept ahead of the total number of patients until the last week in August, 1918. Then for about three months the hospital was full over and above its official capacity. The additional patients were cared for by crowding, and by the use of corridors and other makeshifts. The first great increase in capacity came in April, 1918, when a considerable number of the newly constructed wards were completed. The capacity then reached 2,200 beds and after that was gradually increased to its maximum of 3,036. In this connection it is interesting to note that the base hospital was originally planned to be one of but 500 beds! Through the second summer and early autumn the number of patients increased to a maximum of 4,319, which was reached the last week in October, 1918.

In Fig. 2 are shown the admissions and discharges by weeks, and this figure, together with Fig. 1, will throw some light on the type of patients cared for. In Fig. 1, for example, each column is divided into two portions; the upper, shaded,

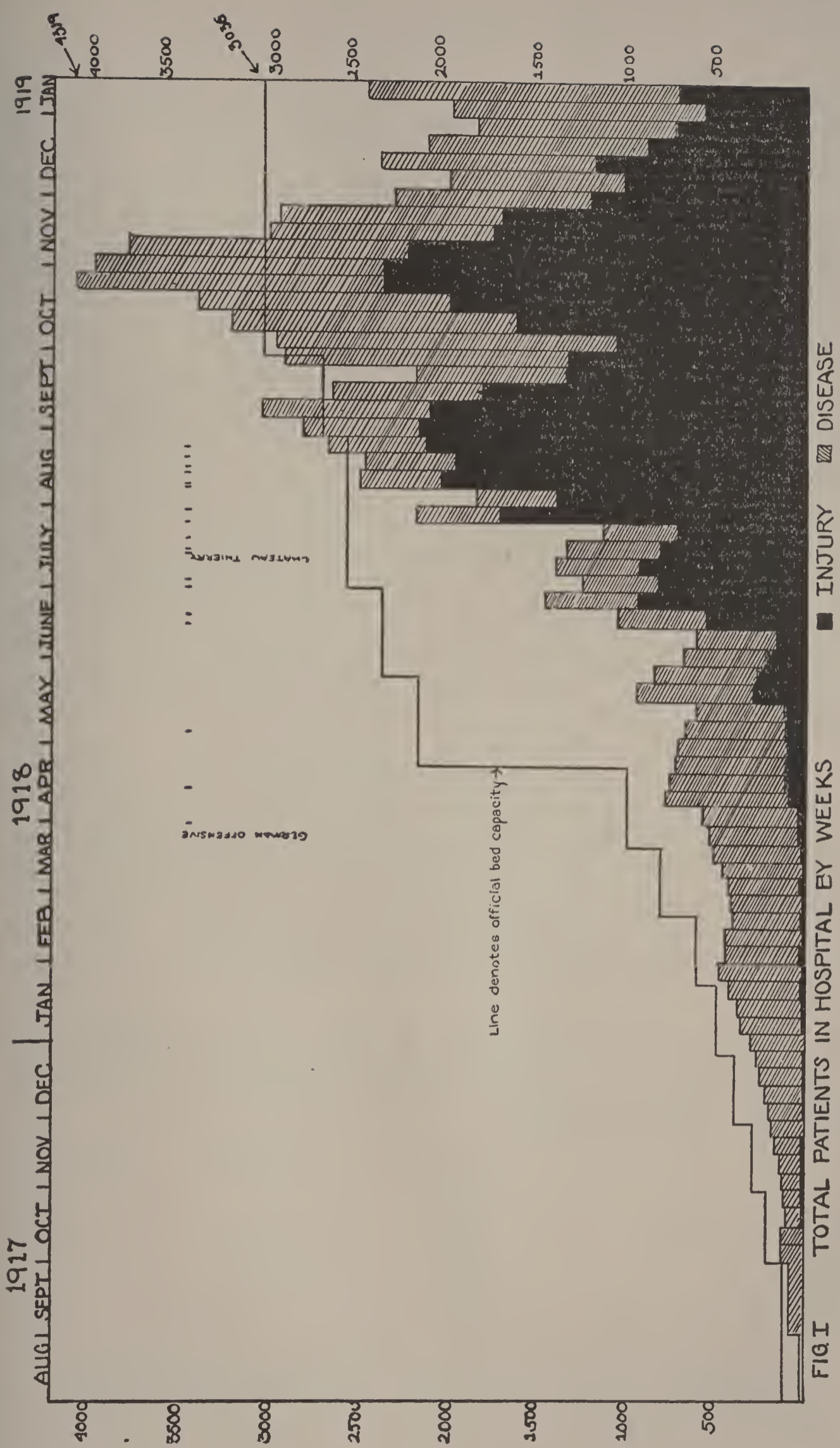


FIG. I TOTAL PATIENTS IN HOSPITAL BY WEEKS

shows the number of patients suffering from diseases of all sorts; the lower portion, black, the injured (this includes accidentally injured as well as wounded in action).

Through the first winter it will be seen the patients were largely sick. A great many of them had pneumonia, indeed, more than half of our total deaths were from pneumonia (this includes "Flu" pneumonia). The sick during the first winter were for the most part from the troops in Base Section No. 2. The first convoy from the advance zone arrived on April 3, 1918, but wounded did not begin to arrive in large numbers until the middle of June. Then, as both Figs. 1 and 2 show, they arrived rapidly. The greatest number admitted in one week was in that ending July 29. The total number of convoys received was thirty-nine, the number of patients in each and their approximate dates are shown in Fig. 2. After the July activity, the number of wounded fell off for a few weeks, to begin again in the latter half of October and early November. At the same time it will be noted that from the last week in September, 1918, till into November, a great number of sick were admitted. This increase was almost entirely due to the influenza epidemic.

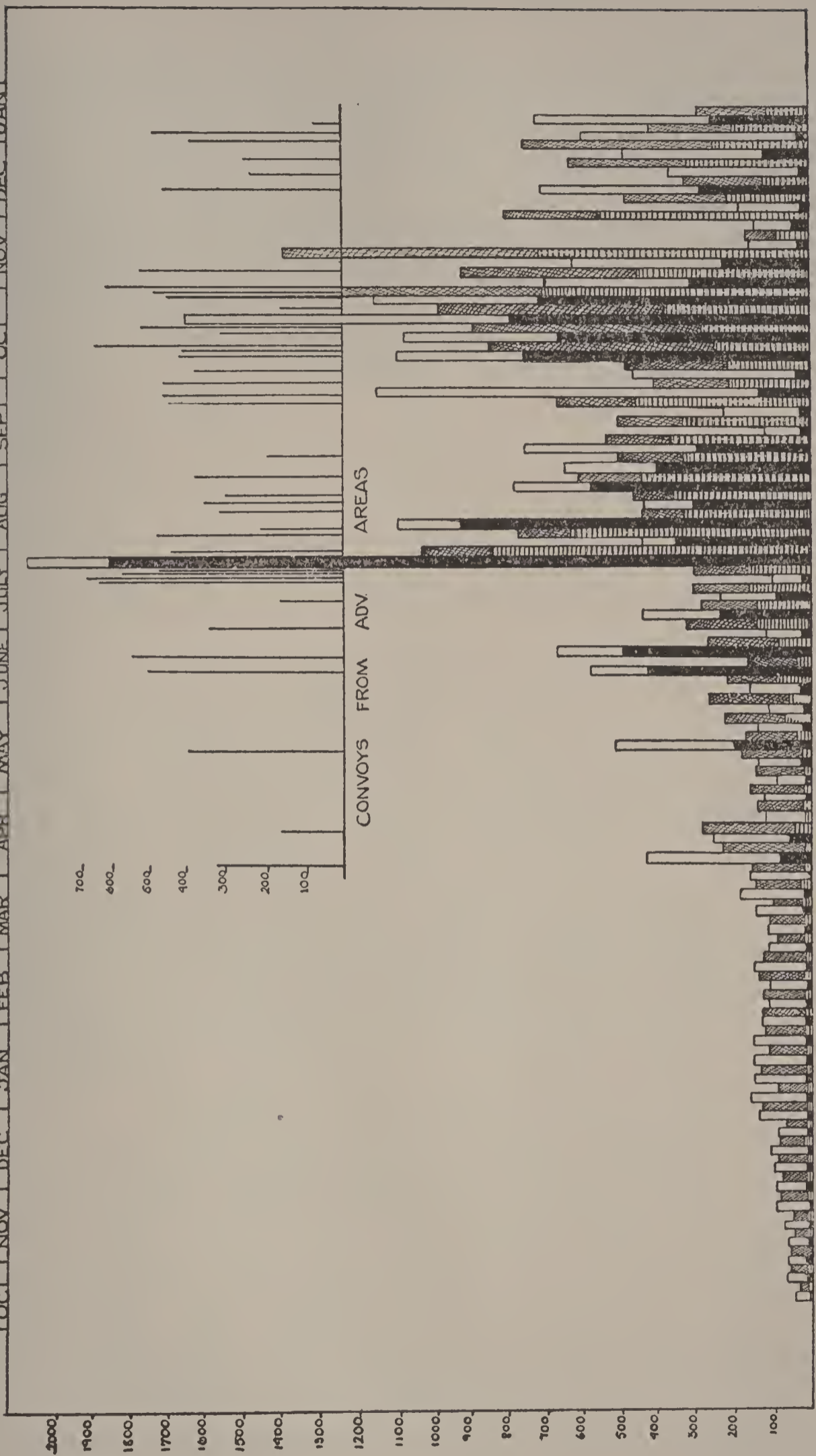
The total number of patients received in the thirty-nine convoys from advanced areas was 16,150, the majority of them being wounded. The total number of patients cared for by Base Hospital No. 6, between July 1, 1917, and January 14, 1919 (when it was relieved by Base Hospital No. 208), was 24,122, or an average of 1,304 per month. The total number of deaths during this same period was 434, or 1.9 per cent.

A table of the diagnoses in these 24,122 patients has been prepared from the official records by Miss O'Gorman. Some of the more frequent ailments, with their mortality in per cent, are as follows:

	<i>Total Cases</i>	<i>Deaths</i>	<i>Mortality Per cent</i>
Gunshot wounds	6,751	43	.6
Gassed	1,966	9	.4
Pneumonia	1,352	283	21.
Fractures	1,045	9	.8
Diarrhœa and Colitis	515	4	.8

As pointed out earlier, such statistics mean nothing as regards the importance of the several causes of death and

1917 1918 1919
 OCT. | NOV. | DEC. | JAN. | FEB. | MAR. | APR. | MAY. | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. | JANU.



■ = INJURED □ = DISEASE
 ▨ AND ▩ COLUMN = TOTAL ADMISSION
 ▧ AND ▦ COLUMN = TOTAL DISCHARGE

illness to the army as a whole. They are interesting solely from a local point of view. Our wounded, since we were far from the front, were those that could stand transportation by railway train, hence their mortality was slight. With us disease, therefore, caused by far the greater proportion of deaths, and of the several diseases, pneumonia (including "Flu" pneumonia) caused over ten times more deaths than any other one disease. The next on the list was cerebro-spinal fever. The statistics of the common infections, other than pneumonia and influenza, were as follows:

	<i>Total Cases</i>	<i>Deaths</i>	<i>Mortality Per cent</i>
Mumps	447	0	0.
Gonorrhœa	437	0	0.
Acute Tonsillitis	341	0	0.
Syphilis	315	5	1.6
Rheumatic Fever	301	0	0.
Otitis Media	292	6	2.
Pulmonary Tuberculosis	227	8	3.5
Measles	113	7	6.2
Diphtheria	79	2	2.5
Scarlet Fever	78	2	2.5
Cerebro-spinal Fever	69	26	35.
Non-pulmonary Tuberculosis	45	17	38.
Malaria	30	0	0.
Typhoid	9	3	33.

From this it appears that the highest per cent mortality was in the non-pulmonary forms of tuberculosis (meningitis, acute miliary, etc.) thirty-eight per cent; then in cerebro-spinal fever thirty-five per cent; and typhoid, thirty-three per cent. It is interesting to note that typhoid, a rare disease in the World War, provided but nine cases out of 24,122, but yet, when it did occur, its death rate was high.

To recapitulate we may say that the first winter at Bordeaux (1917-1918) was concerned largely with the care of patients with infectious diseases. Then it was that we had our largest number of cases of the acute exanthemata and of cerebro-spinal fever. The summer of 1918 was occupied with the care of wounded, and finally in the early autumn began that great influenza epidemic which included the entire A. E. F., as it did indeed most of the civilized world. Accurate figures on the numbers of influenza patients treated in Base Hospital No. 6 cannot be given because of looseness in

diagnosis. The disease was not made reportable, as often contagious diseases were, until October 7, 1918, at which time the epidemic had already reached large proportions. Before that time many of the cases had been classified as F. U. O., bronchitis or pneumonia. The numbers of patients with influenza admitted to and remaining in hospital by weeks from October 7 will, however, give some idea of the proportion of the epidemic.

INFLUENZA

<i>Week Ending</i>	<i>Admitted</i>	<i>Remaining</i>	<i>Died</i>
Oct. 7	382	725	45
14	25	634	0
21	51	461	0
28	13	321	0
Nov. 4	8	230	0
11	22	184	0
18	12	178	0
25	1	155	0
Dec. 2	0	140	0

For the most part the patients treated in Base Hospital No. 6 were of the U. S. Army. There were a few, however, from the navy, and also a few allies. Thus 221 British sick, chiefly from some forestry units operating in the Gironde, and 359 French wounded found their way within our gates. A very few American civilians were also cared for. The American Consul's wife, for example, did the hospital the honor of selecting it as her "lying-in" resort, and Capt. P. D. White had the honor of being the accoucheur, the obstetrical department being absent, at the time, on the Italian front.

GENERAL HOSPITAL NO. 6
ORGANIZED RESERVES, U. S. ARMY

AT the end of the war Base Hospital No. 6 ceased to exist as an official organization. To perpetuate its traditions, and to continue a state of preparedness on the part of the parent institution, a new organization in the Organized Reserves of the U. S. Army, known as General Hospital No. 6, was authorized by the Surgeon General on June 27, 1922, and is now in process of formation. This new unit is a thousand bed hospital, and the tables of organization call for forty officers.

The following graduates or staff members of the Massachusetts General Hospital have already been commissioned in the Reserve Corps, and assigned to General Hospital No. 6:

Lieut. Col. J. H. Means, Med. O. R. C., Commanding Officer.

Lieut. Col. W. J. Mixter, Med. O. R. C., Chief of Surgical Service.

Major P. D. White, Med. O. R. C., Chief of Medical Service.

Major G. A. MacIver, Med. O. R. C., Executive Officer.

Major George Clymer, Med. O. R. C., Assistant to Chief of Medical Service.

Major E. L. Oliver, Med. O. R. C., Assistant to Chief of Medical Service.

Major G. A. Leland, Jr., Med. O. R. C., Assistant to Chief of Surgical Service.

Major H. G. Tobey, Med. O. R. C., Assistant to Chief of Surgical Service.

Capt. R. P. Heard, San. O. R. C., Assistant Quartermaster.

The following are medical ward officers:

Capt. J. H. Taylor, Med. O. R. C.

1st Lieut. C. M. Jones, Med. O. R. C.

1st Lieut. C. S. Burwell, Med. O. R. C.

1st Lieut. M. Fremont-Smith, Med. O. R. C.

1st Lieut. W. B. Breed, Med. O. R. C.

The following are surgical ward officers:

Capt. J. S. Hodgson, Med. O. R. C.

1st Lieut. E. P. Hayden, Med. O. R. C.

1st Lieut. C. C. Lund, Med. O. R. C.

1st Lieut. John Roch, Med. O. R. C.

A number of others have signified their willingness to join, and their commissions and assignments are in various stages of advancement. Among these are Dr. J. Warren White, Dr. W. L. Davis, Dr. E. D. Churchill, and Rev. Donald B. Aldrich, who will join as Chaplain.

APPENDIX A

At the reception June 9, 1919, to the Massachusetts General Hospital physicians, nurses and employees who served in the World War, the following letter was read:

I am in receipt of an invitation from the Trustees of the Massachusetts General Hospital, inviting me to be present on the afternoon of Monday, June 9, to meet the members of Base Hospital No. 6, and other persons who have served in the army after service in your hospital.

I beg to thank the Trustees for the invitation, and I can't forego a word of regret that I shall be unable to be present at any function which in any way comprehends a tribute to the personnel of Base Hospital No. 6.

The actuation which I have in this matter, is, of course, abundantly known to you; but I shall be very grateful to you if you will express for me to the members of the unit, my very substantial and abiding appreciation of the splendid work they all did in the trying days of the situation of Bordeaux. It is my judgment that the accomplishment there was a great one, and certainly no institution in the Lines of Communication in France carried forth its work to a more effective and entirely satisfactory result than Base Hospital Unit No. 6 accomplished at the Talence Hospital.

I shall appreciate it very much if you will convey to all the personnel of the unit my very deep sense of gratitude for the fine work they did for the Medical Department, and I also hope that it may be my good fortune to encounter such splendid people should another emergency put us in the position we were in in 1917.

With best wishes for yourself, please believe me,

Very sincerely yours,

(Sd) F. A. WINTER,
*Colonel, Medical Corps, U. S. A.
Formerly Chief Surgeon,
Lines of Communication.*

APPENDIX B

On Ether Day, October 18, 1921, at the Centennial of the opening of the Hospital, the following address was given:

THE PLACE OF THE CIVIL GENERAL HOSPITAL IN THE
SCHEME OF MEDICAL PREPAREDNESS

By M. W. IRELAND
Surgeon General, U. S. Army

Three-quarters of a century ago today happened the great event which we are gathered to celebrate and which Weir Mitchell, with characteristic felicity, termed "The Conquest Over Pain." It is most appropriate that Ether Day should be marked by an annual celebration, and I am glad that the Medical Department of the Army has an opportunity to speak its gratitude for this beneficent gift which has done so much to allay the vast sum of human suffering which we are called upon to witness and to relieve as best we may.

I could not have brought myself to stand here, in the place of the great and gifted men who have in past years lent their eloquence to the celebration of this day, but for the fact that it gives me an opportunity to thank the Trustees of this great hospital for the fine public service which it rendered to the Army during the World War. A century has passed since the first patient was admitted to this hospital, and during that time our country has been engaged in five wars. The first, in 1812, secured for us the liberty of the seas. The second burst the bonds which would have held back the march of civilization to the Pacific. The third was the long and bloody operation which cut out the cancer of slavery from the vitals of our nation. The fourth rescued the fair islands of Cuba and Porto Rico, in which we had long and great and special interests, from the weak and cruel domination of Spain and awakened us to our long neglected responsibilities as a world power which have been so magnificently met in the World War. For this last and mightiest war, we are, as yet, too near it, and its ultimate results are too much shrouded in the mists of the future for me to undertake to name them in a phrase.

The Massachusetts General Hospital is a civic institution which was founded and nourished by the generosity of your citizens of former days for benevolent and humane purposes which have nothing to do with war. It has, therefore, in these former wars, sat at home like a good mother, attentive to the duties of its house, sending forth, it is true, its children to serve their country and care for its armies, and, like a good mother, welcoming them when they return with the laurels of duty well performed. It has also never failed to open its

doors to the sick and wounded soldiers. But in the last great conflict war laid its rude hands on every department of human activity and on the persons or products of entire populations, mobilizing nations for its own terrible purposes in a way that had never before been dreamed of. In mobilizing the medical profession for war, we went further than to call the children of the great medical institutions to come, one by one, to be incorporated into the medical service.

The horticulturists, when they find a fruit tree which produces a specially valuable and delicious fruit, do not take the time to reproduce it by the slow process of raising new plants from the seed. This, which is nature's process, has, in addition to the disadvantage of delay, the uncertainty as to what may come from a seed in which many atavistic qualities are struggling to assert themselves. The gardener takes, instead, cuttings of the tree itself, which have the property of breeding true and continuing in the new plant all the admirable qualities of its parent.

Many months before our country entered the war, an officer of the Medical Corps of the Army,¹ who had been charged with the organization of the activities of the Red Cross having relation to our military service, saw an opportunity to use the horticultural method and by cutting off bodily a military base hospital from the existing organizations of the great civil hospitals, to obtain a military unit which bred true to the parent stamp and carried into military life the noble traditions, the high professional standard, the cohesion, discipline and orderly methods of the parent institution. No provision for such ready made hospitals was contemplated by any law, but by the ingenious scheme of enrolling all of the personnel in the Army Reserve, these units were, by the act of calling them into service in time of war, lifted bodily from the Red Cross into the Medical Department of the Army. The Massachusetts General Hospital, by such an operation, furnished to the Army Base Hospital No. 6, which, organized and commanded by your distinguished Superintendent, Colonel F. A. Washburn, was among the first to join the A. E. F. in France, and created, in the suburbs of Bordeaux, a noble hospital which was a worthy daughter of this famous institution.

Base Hospital No. 6 found a home at Talence, a suburb of Bordeaux, in the buildings and fine park of the Petit Lycée, which was, however, already occupied by the French Hospital Complimentaire No. 25. The French military authorities agreed to close this hospital as soon as the sick could be evacuated, but this was not at all in accordance with the views and desires of the chef, an old French physician of Bordeaux, who thought that it would be far more agreeable to retain his position and command both hospitals. Here, however, he came in conflict with the will of the Commanding Officer of No. 6, which had something elemental and glacial in its slow, re-

¹ Col. Jefferson R. Kean.

sistless, forward movement which gradually shaped every tenacious root and removed him and his hospital from the scene.

The French have a great reverence for trees, and appreciate, in a way that, unfortunately, most Americans do not, that these beautiful creations of nature are the gifts of the decades and of the centuries and cannot be made to order by the hand of men. Therefore they were not willing to give up their trees, even to the stern necessities of war, and stipulated with the American authorities that the trees should not be cut down in expanding the hospital by temporary buildings from its original 500 beds to more than 4,000, which it sheltered at the time of the Armistice. Accordingly the wards had to be placed here and there, wherever a sufficient space among the trees could be found and the ground plan of the hospital presented extraordinary outlines which resembled a Chinese ideograph rather than any architectural scheme. As the climate of France is rainy and its soil notoriously adhesive to the feet, the Commanding Officer provided corridors which would protect his nurses and patients from the rain and mud in the comings and goings between the wards and the administrative buildings. Lumber, however, was very scarce in France and most of the planks and beams from which our hospital centers were constructed were standing in the pine forests of the Landes when the American Expeditionary Force set sail for France. The General Staff was, therefore, constantly preaching economy in the use of lumber, and when several of them, in the spring of 1918, visited the sections of the S. O. S., and Bordeaux among them, to see how their injunctions as to economy and overcrowding were being carried out, they were scandalized to see these long and numerous corridors. "My God!" observed one of them, "the man is building a second Massachusetts General Hospital at Bordeaux." Little they knew how well these corridors would serve to accommodate the beds in the crisis expansion of the terrible October days when the crest of the epidemic of influenza coincided with the crest of the great wave of wounded which flowed back from the six weeks' battle in the Argonne and which strained the strength and resources of the Medical Department very nearly to the breaking point.

But at this time Colonel Washburn's transfer to England was ordered, where the hospitalization for American troops had been dragging and going badly and where the Chief Surgeon, who knew his value, felt a man of his qualifications and administrative ability was needed. There he remained, to be promoted later to the position of Chief Surgeon of the Base Section and the rank of colonel, to which the English Government added the decoration of the Order of St. Michael and St. George. Surely our government at no distant date will recognize the distinguished service of this officer.

I regret that I cannot go with some detail into the operations of the several departments of this splendid hospital; the good work of Colonel Babcock, the next Commanding Officer; the medical service

under Colonel R. C. Cabot; the surgical service under Colonel Lincoln Davis, and the fine nursing service under their admired leader, Miss Sara E. Parsons. Suffice it to say that in their work they maintained the fine traditions of this great hospital. The cutting brought forth fruit true to stock. I did not know how Colonel Cabot would like transplantation into military atmosphere and, therefore, I was greatly pleased to hear him say, in a speech at a dinner in Paris, that he considered the practice of medicine in a base hospital to be ideal in its conditions for the attainment of the best results, as there all specialties were represented, all worked together without rivalry, without any intrusion of the spirit of gain, for ends which were entirely noble, patriotism and the alleviation of human suffering.

As regards the laboratory service, I might mention, as something novel and interesting, that when a very fatal epidemic broke out in the great Remount Depot at Souge which the veterinarians were not able to check, and which seriously depleted the supply of horses which were depended on to draw the cannon at the front, the Chief Surgeon of the Bordeaux section, Colonel Shaw, a graduate, by the way, of this hospital, took charge in person and took with him, from the laboratory section of No. 6, Drs. Moss and Binger as laboratory experts. Although they were not able to identify the causative organism, by the strict application of the well-known rules of epidemiology, they were able to bring the epidemic promptly to an end.

On January 14, 1919, Base Hospital No. 6 closed its records. The highest number of patients which it had sheltered at one time was 4,300. The number of cases received in the surgical service was more than 17,000, and 3,442 operations were performed. The total number of patients cared for in the hospital during the sixteen months that it was in operation was more than 26,000. On February 14, 1919, the staff and nurses set sail from Bordeaux and received a fitting welcome on their return home.

In speaking of the contributions of the Massachusetts General Hospital in the war, I should mention that Base Hospital No. 6 had a half-sister, Base Hospital No. 55, which, though not a cutting from the old tree, was raised from Massachusetts General seed, since Colonel Franklin A. Balch, who was the Chief of the Surgical Service, selected its entire surgical staff from the graduates of this institution, which contributed also its chief nurse and the majority of its nurses. The fortunes of war carried No. 55 to Toul, where it was nearly within sound of the guns and was ready to receive the wounded from the great Argonne-Meuse battle.

Soon after its return I wrote to the Trustees to express my appreciation of the great service which the Base Hospital had rendered to our Army in France and to express the hope that so valuable a unit would not be allowed to die, but that its organization would be perpetuated by the constant taking in of new men and nurses so that, if, unfortunately, the time should again come when the country

needed the help of this institution in war, we would find a living organization, enriched and strengthened by the traditions and memories of its former service, and so starting out with a credit balance of morale which it takes a new organization months of training and skillful work to build up. Morale is a word which we hear very often these days. I heard a story of a recruit, some months ago (when we were having recruits), who asked his sergeant what the word "morale" meant. Sergeant Hennessey, an old timer, replied, "Morale, me b'y, is something that we had in the old days but didn't have a name for it. Now we have a name for it and an officer to make it, but we haven't got it." Well, you have it here at the Massachusetts General, and you understand how much of it is the reflex of the past, and the product of good traditions. The pride with which you keep this anniversary is an evidence of it. May I not suggest that among your anniversaries you choose one associated with the career of Base Hospital No. 6, when its members may meet together and cultivate a wholesome pride in their membership in an organization which represents the patriotic contribution of this hospital in the World War and which has so well maintained its best traditions?

The action of the Massachusetts General Hospital in giving to the Army Base Hospital No. 6 is the best answer as to the place of civil hospitals in our scheme of medical preparedness to meet a national emergency.

ROSTERS

The rosters have been compiled from the records available at the time of demobilization. Previous transfers of personnel have rendered these records to a certain degree inaccurate. Errors and omissions, although carefully guarded against, will necessarily be found to exist.—Ed. note.

BASE HOSPITAL NO. 6

OFFICERS

ADAMS, ZABDIEL B., Major	M. C., U. S. A.
AUB, JOSEPH C., First Lieutenant	M. C., U. S. A.
BASNETT, DOUGLAS, First Lieutenant	San. C., U. S. A.
BINGER, CARL A. L., First Lieutenant	M. C., U. S. A.
BOGAN, EDWARD H., Captain	Q. M. C., U. S. A.
CABOT, RICHARD C., Lieutenant Colonel	M. C., U. S. A.
CHICK, GEORGE R., First Lieutenant	San. C., U. S. A.
CLARK, DEWITT S., JR., First Lieutenant	M. C., U. S. A.
CLOUDMAN, FRANCIS H., First Lieutenant	San. C., U. S. A.
CONNORS, HARRY, First Lieutenant	San. C., U. S. A.
CLYMER, GEORGE, Captain	M. C., U. S. A.
DAVIS, LINCOLN, Lieutenant Colonel	M. C., U. S. A.
EVERBERG, GUSTAVE W., Second Lieutenant	Q. M. C., U. S. A.
GULLIFER, WILLIAM H., First Lieutenant	D. C., U. S. A.
HATCH, RALPH A., Captain	M. C., U. S. A.
HEARD, RALPH P., First Lieutenant	San. C., U. S. A.
HEILBORN, JEROME S., Second Lieutenant	C. A. C., U. S. A.
HOLMES, ROBERT W., Major	M. C., U. S. A.
IRVING, FREDERICK C., Major	M. C., U. S. A.
KINNICUTT, ROGER, Major	M. C., U. S. A.
LELAND, GEORGE A., JR., Captain	M. C., U. S. A.
MARBLE, HENRY C., Major	M. C., U. S. A.
McAFEE, LARRY B., Colonel	M. C., U. S. A.
MEANS, JAMES H., Major	M. C., U. S. A.
MERRILL, ADELBERT S., Major	M. C., U. S. A.
MIXTER, WILLIAM J., Lieutenant Colonel	M. C., U. S. A.
MOSS, WILLIAM L., Lieutenant Colonel	M. C., U. S. A.
OLIVER, E. LAWRENCE, Major	M. C., U. S. A.
O'NEIL, RICHARD F., Major	M. C., U. S. A.
ROUNDY, EDWARD C., First Lieutenant	San. C., U. S. A.
SHERRILL, HENRY K., First Lieutenant	C. C., U. S. A.
SHERBURNE, WILLIAM H., First Lieutenant	D. C., U. S. A.
TOBEY, HAROLD GRANT, Captain	M. C., U. S. A.
VINCENT, BETH, Major	M. C., U. S. A.
WALKER, REVELLO M., First Lieutenant	San. C., U. S. A.
WASHBURN, FREDERIC A., Colonel	M. C., U. S. A.
WHITE, PAUL D., Captain	M. C., U. S. A.
WRIGHT, WADE, Captain	M. C., U. S. A.

NURSES

BAGLEY, ANGELINE B., R. N.	A. N. C.
BANTA, CARRIE T., R. N.	A. N. C.
BANTA, MILDRED H., R. N.	A. N. C.
BARTON, MAUDE G., R. N.	A. N. C.
BEECHER, LAURA M., R. N.	A. N. C.
BROOK, SARAH, R. N.	A. N. C.
BUCHANAN, ALICE M., R. N.	A. N. C.
CARLETON, CATHERINE F., R. N.	A. N. C.
CONRICK, CATHERINE A., R. N.	A. N. C.
CORMIER, BERNADETTE, R. N.	A. N. C.
DELANEY, GERTRUDE, R. N.	A. N. C.
DERUSHA, LENA E., R. N.	A. N. C.
DEWAR, ISABEL A., R. N.	A. N. C.
DIAMOND, MARY A., R. N.	A. N. C.
DRISCOLL, MARY A., R. N.	A. N. C.
EASTMAN, GERTRUDE V., R. N.	A. N. C.
EMERY, CAROLYN B., R. N.	A. N. C.
*EMERY, MARY F., R. N.	A. N. C.
FIELD, LEONOR A., R. N.	A. N. C.
*FLETCHER, LUCY N., R. N.	A. N. C.
GAMMON, HAZEL R., R. N.	A. N. C.
GARDINER, ANNA H., R. N.	A. N. C.
HAINES, HELEN B., R. N.	A. N. C.
HAVENS, ELLA E., R. N.	A. N. C.
HYPES, CORA M. D., R. N.	A. N. C.
HYSON, CLARA M., R. N.	A. N. C.
INGLIS, FLORA E., R. N.	A. N. C.
IRVING, NELLIE M., R. N.	A. N. C.
JUDD, HELEN K., R. N.	A. N. C.
KAVALJIAN, PERGROUHIE, R. N.	A. N. C.
KELLY, MAY R., R. N.	A. N. C.
LADD, FRANCES C., R. N.	A. N. C.
LOVEJOY, ANNE L., R. N.	A. N. C.
MACDONALD, CHRISTENA J., R. N.	A. N. C.
MACLEOD, BARBARA E., R. N.	A. N. C.
MARR, MARGARET S., R. N.	A. N. C.
MARRYATT, EVA W., R. N.	A. N. C.
MARSHALL, GLEE, R. N.	A. N. C.

* Died in Service.

MATHESON, MARGARET, R. N.	A. N. C.
McEWAN, HANNAH C., R. N.	A. N. C.
McKAY, MARY J., R. N.	A. N. C.
MORTON, FRANCES A., R. N.	A. N. C.
MULVILLE, JOSEPHINE A., R. N.	A. N. C.
NIVISON, HELEN T., R. N.	A. N. C.
OLSEN, OLGA, R. N.	A. N. C.
PARSONS, SARA E., R. N., Chief Nurse	A. N. C.
PERKINS, GLADYS I., R. N.	A. N. C.
PITMAN, CHARLOTTE E., R. N.	A. N. C.
RAFUSE, ELLA M., R. N.	A. N. C.
REILLY, MARGARET G., R. N.	A. N. C.
RICKER, EDNA L., R. N.	A. N. C.
RODGER, MAE G., R. N.	A. N. C.
ROMANI, HOPE F., R. N.	A. N. C.
ROBERTSON, ANNIE M., R. N.	A. N. C.
SANBORN, LAURA E., R. N.	A. N. C.
SHAYEB, ROSA, R. N.	A. N. C.
TARBOX, DOROTHY M., R. N.	A. N. C.
TOWLE, MARY, R. N.	A. N. C.
TOWNSEND, ALICE M., R. N.	A. N. C.
TRAVERS, ROSELLA, R. N.	A. N. C.
WALDRON, EVA S., R. N.	A. N. C.
WALSH, MARY A., R. N.	A. N. C.
WESCOTT, ALICE M., R. N.	A. N. C.
WILLIAMS, RUTH E., R. N.	A. N. C.

ENLISTED PERSONNEL

ADDELMAN, RAYMOND W., Sergeant	M. D., U. S. A.
ALDRICH, DUANE G., Sergeant, 1st Cl.	M. D., U. S. A.
ANDREWS, NATHAN E., Private, 1st Cl.	M. D., U. S. A.
AVERILL, GEARFIELD S., Private, 1st Cl.	M. D., U. S. A.
AVERILL, HOWLAND C., Private, 1st Cl.	M. D., U. S. A.
BAKER, PHILIP E., Sergeant	M. D., U. S. A.
BARCHARD, OLIVER W., Private, 1st Cl.	M. D., U. S. A.
BARROW, ALBERT E., Private, 1st Cl.	M. D., U. S. A.
BEAN, STEPHEN S., Sergeant	M. D., U. S. A.
BEAUDET, CLEMENT J., Cook	M. D., U. S. A.
BENNETT, FRANK T., Sergeant	M. D., U. S. A.

BERNARD, ALFRED, Private	M. D., U. S. A.
*BERRIE, ALLYN M. C., Private, 1st Cl.	M. D., U. S. A.
BERTLES, JAMES E., Private, 1st Cl.	M. D., U. S. A.
BIGELOW, BRYANT, Sergeant	M. D., U. S. A.
BLAKE, CHARLES E. F., Private, 1st Cl.	M. D., U. S. A.
BLAZO, ELMER I., Private, 1st Cl.	M. D., U. S. A.
BLEILER, GEORGE C., Private	M. D., U. S. A.
BOLSTEEN, FREDERICK A., Sergeant	M. D., U. S. A.
BONACCORSO, SAMUEL, Private, 1st Cl.	M. D., U. S. A.
BONIN, MAURICE J., Sergeant	M. D., U. S. A.
BRODRICK, HERBERT E., Private	M. D., U. S. A.
BROWN, STEPHEN S., Private, 1st Cl.	M. D., U. S. A.
BRADSHAW, HAROLD F., Cook	M. D., U. S. A.
CAREY, ARTHUR I., Corporal	M. D., U. S. A.
CARRUTHERS, JOHN A., Private, 1st Cl.	M. D., U. S. A.
CARSON, JAMES S., JR., Private, 1st Cl.	M. D., U. S. A.
CASE, PAUL, Sergeant	M. D., U. S. A.
CHASE, EVERETT W., Sergeant, 1st Cl.	M. D., U. S. A.
CLANCY, JOSEPH H., Private, 1st Cl.	M. D., U. S. A.
CLARK, ASA F., Sergeant, 1st Cl.	M. D., U. S. A.
CLEARY, MICHAEL J., Sergeant	M. D., U. S. A.
COLEMAN, JOSEPH E., Private, 1st Cl.	M. D., U. S. A.
CRANE, WALTER S., JR., Sergeant, 1st Cl.	M. D., U. S. A.
CURLEY, CHARLES S., Corporal	M. D., U. S. A.
CURRY, STOWERS L., Hospital Sergeant	M. D., U. S. A.
DALY, MATTHEW J., Private, 1st Cl.	M. D., U. S. A.
DAVIS, WILLIAM S., JR., Corporal	M. D., U. S. A.
DUNN, WILLIAM W., Hospital Sergeant	M. D., U. S. A.
DUTEMPLE, WILLIAM P., Cook	M. D., U. S. A.
EGAN, CHARLES T., Private, 1st Cl.	M. D., U. S. A.
EGRETAND, PIERRE, Cook	M. D., U. S. A.
ELLIS, WILFRED A., Private	M. D., U. S. A.
FAVRE, LOUIS G., Sergeant	M. D., U. S. A.
GADDIS, MICHAEL E., Private	M. D., U. S. A.
GARDINER, GEORGE W., Private, 1st Cl.	M. D., U. S. A.
GARDNER, CHESTER A., Corporal	M. D., U. S. A.
GENT, HERBERT F., Private, 1st Cl.	M. D., U. S. A.
GETCHELL, ASHTON, Private, 1st Cl.	M. D., U. S. A.
GLASSETT, ALBERT E., Private, 1st Cl.	M. D., U. S. A.
GLYNN, JOHN, Private	M. D., U. S. A.

* Died in Service.

GRAHAM, ALONZO M., Private, 1st Cl.	M. D., U. S. A.
GRANT, THEODORE F., Hospital Sergeant	M. D., U. S. A.
GRIFFITH, JOHN H., Sergeant	M. D., U. S. A.
HACKETT, EDWARD T., Private, 1st Cl.	M. D., U. S. A.
HARTY, FRED R., Corporal	M. D., U. S. A.
HAWKINS, JAMES A., Sergeant, 1st Cl.	M. D., U. S. A.
HAYES, WALTER A., Private, 1st Cl.	M. D., U. S. A.
HEALEY, HERMAN E., Private, 1st Cl.	M. D., U. S. A.
HEWINS, MALCOLM F., Private, 1st Cl.	M. D., U. S. A.
HOWARD, CLIFTON M., Sergeant, 1st Cl.	M. D., U. S. A.
HUNTER, ALBERT E., Private, 1st Cl.	M. D., U. S. A.
HURLEY, WILLIAM P., Sergeant	M. D., U. S. A.
IASCONE, ANTONIO, Private, 1st Cl.	M. D., U. S. A.
JACOBI, OSCAR M., Private, 1st Cl.	M. D., U. S. A.
JOHNSON, CARL E., Cook	M. D., U. S. A.
KELTY, GEORGE E., Cook	M. D., U. S. A.
KENDALL, WILLIAM S., Sergeant	M. D., U. S. A.
KENNELLY, EDWARD M., Private	M. D., U. S. A.
KENT, LEO I., Private, 1st Cl.	M. D., U. S. A.
KIMBALL, MYRON W., Sergeant	M. D., U. S. A.
KNIGHT, PERLEY H., Private, 1st Cl.	M. D., U. S. A.
KNOWLES, WILLIAM T., Sergeant	M. D., U. S. A.
LANE, HOWARD C., Private, 1st Cl.	M. D., U. S. A.
LEE, WILLIAM H., Corporal	M. D., U. S. A.
LODGE, ALFRED M., Private, 1st Cl.	M. D., U. S. A.
LORDEN, HENRY G., Private, 1st Cl.	M. D., U. S. A.
LOVERING, HAROLD J., Sergeant	M. D., U. S. A.
LYNCH, EDWARD F., Private, 1st Cl.	M. D., U. S. A.
MACDONALD, HERBERT A., Sergeant	M. D., U. S. A.
MACNAIR, WILLIAM J., Sergeant, 1st Cl.	M. D., U. S. A.
MAHONEY, OLIVER F., Private, 1st Cl.	M. D., U. S. A.
MARKS, NICHOLAS L., Private, 1st Cl.	M. D., U. S. A.
MARSDEN, GEORGE W., Private, 1st Cl.	M. D., U. S. A.
MATHEWS, HARRY W., Corporal	M. D., U. S. A.
MCENERY, WILBUR L., Private, 1st Cl.	M. D., U. S. A.
MCGRANN, JAMES J., Sergeant, 1st Cl.	M. D., U. S. A.
MCKENNA, WALTER J., Corporal	M. D., U. S. A.
MCKIE, JOHN A., Sergeant	M. D., U. S. A.
McMORROW, WILLIAM J., Sergeant	M. D., U. S. A.
MEDBERY, HENRY E., Corporal	M. D., U. S. A.

MENZIES, NORMAN M., Sergeant, 1st Cl.	M. D., U. S. A.
MILLS, ERNEST E., Sergeant	M. D., U. S. A.
MONAHAN, WILLIAM C., Private, 1st Cl.	M. D., U. S. A.
MORERA, MARIO, Private, 1st Cl.	M. D., U. S. A.
MORGAN, CHARLES J., Sergeant	M. D., U. S. A.
MURRAY, JACK O., Private, 1st Cl.	M. D., U. S. A.
MURRAY, JAMES B., Sergeant	M. D., U. S. A.
NOONAN, HENRY L., Private, 1st Cl.	M. D., U. S. A.
OBERG, STEN A., Private, 1st Cl.	M. D., U. S. A.
O'BRIEN, WILLIAM E., Sergeant, 1st Cl.	M. D., U. S. A.
ODELL, WILLIAM A., Corporal	M. D., U. S. A.
OLSON, ALVIN L., Sergeant, 1st Cl.	M. D., U. S. A.
O'MEARA, STEPHEN M., Private, 1st Cl.	M. D., U. S. A.
OSGOOD, GILMAN, JR., Private, 1st Cl.	M. D., U. S. A.
PARK, HARRY L., Private, 1st Cl.	M. D., U. S. A.
PATTERSON, CHARLES A., Private, 1st Cl.	M. D., U. S. A.
PEARSON, FREDERICK E., Sergeant	M. D., U. S. A.
PETERSON, ROBERT C., Sergeant	M. D., U. S. A.
POIRER, ARTHUR L., Private, 1st Cl.	M. D., U. S. A.
POOLER, HOWARD E., Private, 1st Cl.	M. D., U. S. A.
PRATT, HOWARD, Private, 1st Cl.	M. D., U. S. A.
PRESLEY, FRED Y., Hospital Sergeant	M. D., U. S. A.
PUTNEY, WILLIAM H., Sergeant	M. D., U. S. A.
REED, ROBERT, Private, 1st Cl.	M. D., U. S. A.
SACHS, CHARLES, Cook	M. D., U. S. A.
SCHULTZ, FRANCIS A. H., Sergeant, 1st Cl.	M. D., U. S. A.
SMITH, WILBUR S., Private, 1st Cl.	M. D., U. S. A.
STALKER, HUGH L., Corporal	M. D., U. S. A.
STANDISH, MYLES, JR., Sergeant, 1st Cl.	M. D., U. S. A.
STEWART, JESSE, Private	M. D., U. S. A.
STOTT, JAMES, Private, 1st Cl.	M. D., U. S. A.
SULLIVAN, MARTIN L., Private, 1st Cl.	M. D., U. S. A.
SULLIVAN, WILLIAM J., Private, 1st Cl.	M. D., U. S. A.
SWEENEY, ROBERT E., Private, 1st Cl.	M. D., U. S. A.
TAYLOR, EDWARD H., Sergeant, 1st Cl.	M. D., U. S. A.
TAYLOR, FRANCIS E., Private, 1st Cl.	M. D., U. S. A.
THONER, WILFRED O., Sergeant, 1st Cl.	M. D., U. S. A.
TRIPP, CHESTER A. R., Private, 1st Cl.	M. D., U. S. A.
VANDER WERKEN, HOMER E., Sergeant	M. D., U. S. A.
WALKER, JAMES F., Private, 1st Cl.	M. D., U. S. A.

ROSTERS

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WESTON, WALTER K., Private, 1st Cl.	M. D., U. S. A.
WESTWELL, ARTHUR E., Sergeant	M. D., U. S. A.
WHITE, LAWRENCE A., Corporal	M. D., U. S. A.
WHITEHEAD, GUY R., Sergeant	M. D., U. S. A.
WILEY, EDWARD D., Private, 1st Cl.	M. D., U. S. A.
WILLIAMS, CHARLES R., Sergeant, 1st Cl.	M. D., U. S. A.
WILKINSON, WILLIAM, Sergeant	M. D., U. S. A.
WILSON, CYRIL, Private, 1st Cl.	M. D., U. S. A.
WILSON, PERCY A., Cook	M. D., U. S. A.
WILSON, WALTER F., Private, 1st Cl.	M. D., U. S. A.
WINSLOW, FRED H., Sergeant, 1st Cl.	M. D., U. S. A.
WOODRUFF, EDGAR F., Sergeant, 1st Cl.	M. D., U. S. A.
YOUNGS, THEODORE C. H., Corporal	M. D., U. S. A.

DIETITIAN

REED, MARY E.

SECRETARIES

ELLIOTT, BERTHA A.
 LEE, MARY
 LEMOYNE, LODIVINE
 O'GORMAN, ALICE G.
 PATTEE, EUNICE H.
 TOWNER, LILIAN B.

UNIT O

OFFICERS

ALLAN, WILLIAM, Captain	M. C., U. S. A.
ALLEN, CHARLES I., First Lieutenant	M. C., U. S. A.
BARRON, ARCHIE A., First Lieutenant	M. C., U. S. A.
BRENIZER, ADDISON G., JR., Lieutenant Colonel	M. C., U. S. A.
CRAWFORD, ROBERT H., Captain	M. C., U. S. A.
DAVIS, JAMES M., First Lieutenant	M. C., U. S. A.
GLASGOW, CHARLES S., First Lieutenant	San. C., U. S. A.
HUNTER, WILLIAM M., Captain	M. C., U. S. A.
LEINBACH, ROBERT F., Major	M. C., U. S. A.
MATHESON, JAMES P., Captain	M. C., U. S. A.
McKAY, HAMILTON W., Captain	M. C., U. S. A.
TURNER, HENRY G., Captain	M. C., U. S. A.
WYMAN, MARION H., Captain	M. C., U. S. A.

NURSES

ALDRIDGE, JOHNSIE, R. N.	A. N. C.
ALLEN, ANNA W., R. N.	A. N. C.
COLSON, JULIA C., R. N.	A. N. C.
DOWNEY, ROSE A., R. N.	A. N. C.
DEARMAN, CORA L., R. N.	A. N. C.
HARRIS, SARAH M., R. N.	A. N. C.
HILL, EDNA M., R. N.	A. N. C.
HILL, ELIZABETH, R. N.	A. N. C.
IHARD, ADA C., R. N.	A. N. C.
JONES, MARTHA E., R. N.	A. N. C.
LAMBETH, LULA, R. N.	A. N. C.
LEONARD, BLANCHE J., R. N.	A. N. C.
LOW, SARAH E., R. N.	A. N. C.
MCCOY, HARRIET L., R. N.	A. N. C.
MOORE, SUE J., R. N.	A. N. C.
OSBORN, KATHERINE, R. N.	A. N. C.
SHEPARD, GERTRUDE, R. N.	A. N. C.
STANFORD, MACIE M., R. N.	A. N. C.
SWEARNGAN, BESS, R. N.	A. N. C.
WATTS, JOSEPHINE, R. N.	A. N. C.
WHITE, MARGARET E., R. N.	A. N. C.

ENLISTED PERSONNEL

ABERNETHY, THOMAS C., Sergeant, 1st Cl.	M. D., U. S. A.
ANDERSON, PAUL G., Cook	M. D., U. S. A.
ANDREWS, EZRA P., Private, 1st Cl.	M. D., U. S. A.
BARRINGER, JOHN M., Private, 1st Cl.	M. D., U. S. A.
BRONSON, WILLIAM H., Private, 1st Cl.	M. D., U. S. A.
BROWN, CHARLES S., Sergeant, 1st Cl.	M. D., U. S. A.
BROWN, WILLIAM J., Sergeant	M. D., U. S. A.
COLDWELL, HARRY S., Corporal	M. D., U. S. A.
CORPENING, EUGENE J., Private, 1st Cl.	M. D., U. S. A.
COVINGTON, THOMAS J., Private, 1st Cl.	M. D., U. S. A.
CROWELL, GORDON B., Private, 1st Cl.	M. D., U. S. A.
DAVIS, WILLIAM A., Private, 1st Cl.	M. D., U. S. A.
DULONG, ALFRED P., Private, 1st Cl.	M. D., U. S. A.
DURHAM, JOHN F., Private, 1st Cl.	M. D., U. S. A.
EVERETT, HARRY L., Private, 1st Cl.	M. D., U. S. A.

FIELD, FRED M., Private, 1st Cl.	M. D., U. S. A.
GEORGE, JOY FOY, Sergeant	M. D., U. S. A.
GIBSON, MACK W., Private, 1st Cl.	M. D., U. S. A.
HARDING, ROBERT H., Private, 1st Cl.	M. D., U. S. A.
HENDERSON, ARTHUR I., Private	M. D., U. S. A.
JOHNSTON, JAMES F., Private, 1st Cl.	M. D., U. S. A.
KING, CHARLES B., JR., Private	M. D., U. S. A.
KNIGHT, JOSEPH I., Private, 1st Cl.	M. D., U. S. A.
LITTLE, RISDON T. B., Private, 1st Cl.	M. D., U. S. A.
LOVE, JAMES F., Private, 1st Cl.	M. D., U. S. A.
LYNCH, NORMAN W., Sergeant, 1st Cl.	M. D., U. S. A.
MARVIN, OSCAR M., Private	M. D., U. S. A.
McADEN, JOEL J., Private, 1st Cl.	M. D., U. S. A.
McCROREY, JOHN T., Cook	M. D., U. S. A.
McGINNIS, BOYCE H., Private, 1st Cl.	M. D., U. S. A.
MEDLOCK, FRANK H., JR., Cook	M. D., U. S. A.
MILLER, RAYMOND M., Sergeant	M. D., U. S. A.
MOOSE, J. OSCAR, Sergeant, 1st Cl.	M. D., U. S. A.
OSBORNE, WILLIAM M., Private, 1st Cl.	M. D., U. S. A.
PHARR, JOHN B., Private, 1st Cl.	M. D., U. S. A.
REILLY, ALFRED S., Sergeant	M. D., U. S. A.
ROBERTSON, WILLIAM F., Sergeant	M. D., U. S. A.
SANFORD, JULIUS W., Sergeant, 1st Cl.	M. D., U. S. A.
SWING, THOMAS J., Sergeant	M. D., U. S. A.
TALIAFERRO, THOMAS L., Private, 1st Cl.	M. D., U. S. A.
TAYLOR, ARCHIBALD B., Sergeant	M. D., U. S. A.
TAYLOR, EDMUND D., Sergeant	M. D., U. S. A.
THERREL, DAVID H., Private, 1st Cl.	M. D., U. S. A.
TOMPKINS, DANIEL A., Private, 1st Cl.	M. D., U. S. A.
YOUNG, ARCHIBALD L., Private, 1st Cl.	M. D., U. S. A.

ADDITIONAL PERSONNEL ASSIGNED TO DUTY

OFFICERS

ALLISON, GRADY M., First Lieutenant	M. C., U. S. A.
ALLISON, ROBERT G., First Lieutenant	M. C., U. S. A.
BABCOCK, WARREN L., Colonel	M. C., U. S. A.
BACON, ARTHUR M., First Lieutenant	M. C., U. S. A.
BALCH, RALPH E., Major	M. C., U. S. A.
BARBER, THOMAS M., First Lieutenant	M. C., U. S. A.

BARRON, WILLIAM P., First Lieutenant	M. C., U. S. A.
BELYEA, JAMES A., Captain	M. C., U. S. A.
BENEDICT, FRANKLIN D., First Lieutenant	M. C., U. S. A.
BOWERS, JOHN W., Captain	M. C., U. S. A.
BOYD, JOHN G., Captain	San. C., U. S. A.
BROWN, ELVIN O., First Lieutenant	M. C., U. S. A.
BRUNCKHORST, FRANK, Captain	M. C., U. S. A.
BURNHAM, HENRY M., First Lieutenant	M. C., U. S. A.
CAMPBELL, RAYMOND F. W., First Lieutenant	M. C., U. S. A.
CRAIG, CALE C., Captain	M. C., U. S. A.
DAGGETT, RALPH W., Second Lieutenant	Q. M. C., U. S. A.
DARLING, FRANK E., Major	M. C., U. S. A.
DAVISON, ROLAND A., First Lieutenant	M. C., U. S. A.
FARNUM, LEE V., First Lieutenant	Inf., U. S. A.
GHOUREYEB, ALBERT W., Captain	M. C., U. S. A.
GREEN, THOMAS S., Captain	M. C., U. S. A.
HAIGH, JOHN E., First Lieutenant	M. C., U. S. A.
HAMMER, LEROY A., First Lieutenant	M. C., U. S. A.
HASTINGS, FREDERICK S., First Lieutenant	San. C., U. S. A.
HAYES, HENRY W. S., Captain	M. C., U. S. A.
HENDRICKS, EARL L., Captain	M. C., U. S. A.
HERBST, BERT, Captain	Q. M. C., U. S. A.
HODGSON, JOHN S., First Lieutenant	M. C., U. S. A.
JONES, ANDREW B., First Lieutenant	M. C., U. S. A.
LAUGHLIN, JAMES L., First Lieutenant	San. C., U. S. A.
LEIR, CHARLES N. O., Captain	M. C., U. S. A.
LEO, CARL, First Lieutenant	Inf., U. S. A.
LETTON, HARRY P., Captain	E. C., U. S. A.
LIPPOLD, PAUL H., First Lieutenant	M. C., U. S. A.
LUNT, LAWRENCE K., Captain	M. C., U. S. A.
MAFFITT, HOWARD C., Second Lieutenant	San. C., U. S. A.
MALONEY, JOHN H., Captain	D. C., U. S. A.
MASON, CHARLES D., Captain	M. C., U. S. A.
MCGOURTY, GERALD S., First Lieutenant	C. C., U. S. A.
MCMILLIAN, WILLIAM W., Captain	M. C., U. S. A.
MILLER, ARCHIBALD L., Major	D. C., U. S. A.
MOELLER, FRED W., Major	M. C., U. S. A.
MOHLER, BRUCE M., Captain	San. C., U. S. A.
MOOK, WILLIAM H., Captain	M. C., U. S. A.
PENFOLD, FREDERICK S., First Lieutenant	C. C., U. S. A.

PFEIFFER, ROY H., First Lieutenant	D. C., U. S. A.
POWELL, EUGENE V., Captain	M. C., U. S. A.
POWERS, JAMES W., Captain	M. C., U. S. A.
QUACKENBOSS, ALEXANDER, Major	M. C., U. S. A.
REESE, JAMES W., First Lieutenant	M. C., U. S. A.
ROBERTSON, PERRY C., First Lieutenant	M. C., U. S. A.
SCHUTT, EMORY L., Second Lieutenant	San. C., U. S. A.
SCOTT, HOMER, Major	M. C., U. S. A.
SILLAMAN, JAMES W., First Lieutenant	M. C., U. S. A.
SPIVY, RAYMOND M., Captain	M. C., U. S. A.
STANLEY, ROBERT H., Major	M. C., U. S. A.
TANGEMAN, HORACE F., First Lieutenant	M. C., U. S. A.
TERRY, ARTHUR H., Captain	M. C., U. S. A.
THOMSON, WILLIAM R., Captain	M. C., U. S. A.
VOLK, MAXWELL L., First Lieutenant	M. C., U. S. A.
WALKER, DAVID A., Captain	M. C., U. S. A.
WALKER, FRANK J., Captain	M. C., U. S. A.
WHEAT, HARRY R., First Lieutenant	M. C., U. S. A.
WHITE, SAMUEL A., First Lieutenant	M. C., U. S. A.

NURSES

ALLEN, SARAH, R. N.	A. N. C.
ALTHAUS, LETA, R. N.	A. N. C.
ANDERSON, LIENTHENA H., R. N.	A. N. C.
ARONSON, HARRIET E., R. N.	A. N. C.
ARNBERG, AGNES C., R. N.	A. N. C.
BARKER, MARY J., R. N.	A. N. C.
BAUSCH, ALVINA M., R. N.	A. N. C.
BECKER, LILLIAN S., R. N.	A. N. C.
BELL, KATHERINE, R. N.	A. N. C.
BELT, ANN D., R. N.	A. N. C.
BLACK, ANNA M., R. N.	A. N. C.
BLACKBURN, VIOLETTA, R. N.	A. N. C.
BRADY, EMMA C., R. N.	A. N. C.
BRUMMER, ROSE E., R. N.	A. N. C.
BURTON, PAULINE E., R. N.	A. N. C.
BYERS, NELLE M., R. N.	A. N. C.
CATTANACH, LAURIE K., R. N.	A. N. C.
CHARLES, MARY, R. N.	A. N. C.
CLARK, MARGARET, R. N.	A. N. C.

CLEARY, ANNE E., R. N.	A. N. C.
COLGEN, HELEN C., R. N.	A. N. C.
CONNOLLY, MARGARET A., R. N.	A. N. C.
COULSON, MAY, R. N.	A. N. C.
CUMMINGS, ADDIE B., R. N.	A. N. C.
CURTIS, MAE L., R. N.	A. N. C.
DAVIS, HELEN S., R. N.	A. N. C.
DAVIS, ISABELLE C., R. N.	A. N. C.
DESJARDINES, CLARA, R. N.	A. N. C.
DONLEY, HELEN F., R. N.	A. N. C.
DONSAVAGE, KATHRYN, R. N.	A. N. C.
DOOLITTLE, ALICE M., R. N.	A. N. C.
DOWNING, HELEN E., R. N.	A. N. C.
DUFFY, JOSEPHINE L., R. N.	A. N. C.
ENBERG, ANNA W., R. N.	A. N. C.
ERIKSON, ALMA M., R. N.	A. N. C.
FAHNESTOCK, PEARLE M., R. N.	A. N. C.
GALLAGHER, ELLEN T., R. N.	A. N. C.
GREEN, LENA J., R. N.	A. N. C.
HARRINGTON, MAYBELLE, R. N.	A. N. C.
HEASLIP, MARGARET, R. N.	A. N. C.
HUGHES, BERTHA M., R. N.	A. N. C.
HUNT, ELIZABETH S., R. N.	A. N. C.
JOHNSON, EDITH C., R. N.	A. N. C.
JOHNSON, MARGARET G., R. N.	A. N. C.
JOHNSON, MYRTLE H. E., R. N.	A. N. C.
KETELS, ALVINA, R. N.	A. N. C.
KOLODZEJ, JULIA E., R. N.	A. N. C.
LANE, MABEL W., R. N.	A. N. C.
LARKIN, MARION C., R. N.	A. N. C.
LAZEAR, MARY E., R. N.	A. N. C.
LEE, CLARA, R. N.	A. N. C.
LEWIS, FLORENCE M., R. N.	A. N. C.
LIFBOM, EMMA A., R. N.	A. N. C.
LIPEYNSKI, HELEN M., R. N.	A. N. C.
LOOBY, MARION L., R. N.	A. N. C.
MACON, GRACE C., R. N.	A. N. C.
MALAND, INGER M., R. N.	A. N. C.
MARLIN, BERTHA F., R. N.	A. N. C.
MARQUARDT, ALICE, R. N.	A. N. C.

MATHISEN, EDYTHE, R. N.	A. N. C.
MAYO, ADELAIDE A., R. N.	A. N. C.
McCALLUM, MARGARET, R. N.	A. N. C.
McDONNELL, KATHRYN A., R. N.	A. N. C.
McLANE, SARAH F., R. N.	A. N. C.
McVEETY, MAE E., R. N.	A. N. C.
MITTON, ELIZABETH I., R. N.	A. N. C.
MOIR, JEAN R., R. N.	A. N. C.
MORGAN, RUTH G., R. N.	A. N. C.
MORRIS, ELIZABETH S., R. N.	A. N. C.
MULLINS, LOUISE B., R. N.	A. N. C.
PETERSON, SANDRA E., R. N.	A. N. C.
PURDY, MINNETTA F., R. N.	A. N. C.
RAFFENSPERGER, ELIDA E.	A. N. C.
RANKIN, SNOW M., R. N.	A. N. C.
REED, MABEL, R. N.	A. N. C.
REINHARDT, EDITH S., R. N.	A. N. C.
STEINBACH, JANE B., R. N.	A. N. C.
STEVENSON, HELEN A., R. N.	A. N. C.
SWEENEY, MAUD B., R. N.	A. N. C.
SWENSON, SVEA E., R. N.	A. N. C.
SYKES, EUDORA C., R. N.	A. N. C.
THOMPSON, ELIZABETH, R. N.	A. N. C.
TINNER, SUSAN E., R. N.	A. N. C.
TITUS, BLANCHE, R. N.	A. N. C.
TITUS, HAZEL, R. N.	A. N. C.
VORNBROCK, RUTH P., R. N.	A. N. C.
WENZEL, JESSIE E., R. N.	A. N. C.
ZOGARTS, MARY A., R. N.	A. N. C.

ENLISTED PERSONNEL

ALPER, HARRY, Private	Q. M. C., U. S. A.
ANDREWS, HOLLIS, Private, 1st Cl.	M. D., U. S. A.
BAKER, JAMES, Private	M. D., U. S. A.
BAKER, ORIS J., Private	M. D., U. S. A.
BARBER, ALBERT E., Private	Q. M. C., U. S. A.
BARKLY, WILLIAM C., Private, 1st Cl.	M. D., U. S. A.
BARNDT, WILLIAM C., Private	E. R. C., U. S. A.
BEHYMER, ERWIN, Wagoner	M. D., U. S. A.
BELL, LEXIS K., Private, 1st Cl.	M. D., U. S. A.

BERNHARD, OTTO O., Corporal	M. D., U. S. A.
BERTELSON, WILLIAM B., Private	M. D., U. S. A.
BLEVINS, PETE, Horseshoer	M. D., U. S. A.
BROWN, EDWIN C., Private, 1st Cl.	M. D., U. S. A.
BROWN, LEVI S., Private	M. D., U. S. A.
BROWN, MARK W., Private, 1st Cl.	M. D., U. S. A.
BROWN, MONTRESS E., Sergeant	M. T. C., U. S. A.
BROWN, WILLIAM E., Private	M. D., U. S. A.
BURKLUND, RICHARD E., Private, 1st Cl.	M. D., U. S. A.
CALLAN, ROY H., Private, 1st Cl.	M. D., U. S. A.
CAMPBELL, HOMER E., Corporal	M. D., U. S. A.
CECIL, ALBERT W., Private, 1st Cl.	M. D., U. S. A.
CLEMENTS, LEROY C., Private	M. D., U. S. A.
COOK, BENJAMIN A., Private	M. D., U. S. A.
CORNELIUS, RAY H., Sergeant, 1st Cl.	M. D., U. S. A.
CRIGHTON, CAMPBELL M., Private, 1st Cl.	M. D., U. S. A.
CULLINANE, THOMAS P., Wagoner	M. D., U. S. A.
CULPEPPER, JAMES D., Private	M. D., U. S. A.
CUNNINGHAM, TIMOTHY, Private, 1st Cl.	M. D., U. S. A.
CURTIS, WILLIAM H., Private, 1st Cl.	M. D., U. S. A.
DANFIELD, ALBERT E., Private	M. D., U. S. A.
DAVIS, HUBERT G., Private	M. D., U. S. A.
DE BERNARDI, LOUIS, Private, 1st Cl.	M. D., U. S. A.
DE FRANG, GEORGE J., Private, 1st Cl.	M. D., U. S. A.
DEGIACOMO, FRANK, Private	Inf., U. S. A.
DILLION, HORACE T., Private, 1st Cl.	M. D., U. S. A.
DOLLMAIER, GEORGE L., Private, 1st Cl.	M. D., U. S. A.
DONALDSON, ROBERT L., Sergeant, 1st Cl.	M. D., U. S. A.
DORSEY, RUFUS U., Private	M. D., U. S. A.
DOUCHETTE, WILFRED, Private	M. D., U. S. A.
DRAKE, DONALD M., Sergeant, 1st Cl.	San. C., U. S. A.
DUNAVANT, ELBERT A., Sergeant	M. D., U. S. A.
DUNCAN, JOHN N., Private	M. D., U. S. A.
DUNCAN, WILLIE C., Private	M. D., U. S. A.
DURHAM, IRA E., Private, 1st Cl.	M. D., U. S. A.
EBERHARD, DEYO O., Private, 1st Cl.	M. D., U. S. A.
EDWARDS, GAIL P., Private	M. D., U. S. A.
ELLIS, FRANK, Private, 1st Cl.	M. D., U. S. A.
ENGEL, GEORGE J., Private	M. D., U. S. A.
FAY, LESLIE J., Private, 1st Cl.	M. D., U. S. A.

FEATHERSTONE, ROBERT M., Sergeant	M. D., U. S. A.
FEHRENBACK, CHARLES F., Wagoner	M. D., U. S. A.
FELMAN, OSCAR, Private	M. D., U. S. A.
FLANNELY, THOMAS, Private	M. D., U. S. A.
FORRAND, DAVID I., Cook	M. D., U. S. A.
FROST, GEORGE, Private	M. D., U. S. A.
GAMBLE, JAMES H., Cook	M. D., U. S. A.
GEDEN, JOSEPH C., Sergeant, 1st Cl.	M. D., U. S. A.
GERHEISER, AUGUST, Private	Inf., U. S. A.
GIVNER, SAMUEL, Private, 1st Cl.	M. D., U. S. A.
GOODROW, WILLIAM H., Sergeant, 1st Cl.	M. D., U. S. A.
GRANT, WILLIAM L., Private, 1st Cl.	M. D., U. S. A.
HACHMAN, EDWARD, Private	M. D., U. S. A.
HARDEN, FRED W., Private, 1st Cl.	M. D., U. S. A.
HARDING, EARL J., Sergeant	M. T. C., U. S. A.
HARMON, JOHN M., Private, 1st Cl.	M. D., U. S. A.
HARPER, JOHN L., Private, 1st Cl.	M. D., U. S. A.
HARRISON, OSCAR F., Sergeant	M. D., U. S. A.
HASSETT, CARL J., Private	M. D., U. S. A.
HASTINGS, JAMES W., Private, 1st Cl.	M. D., U. S. A.
HAWKINS, STANLEY, Sergeant	M. D., U. S. A.
HENDRIX, FLOYD R., Cook	M. D., U. S. A.
HIGER, HERMAN, Cook	M. D., U. S. A.
HORIGAN, CORNELIUS, Cook	M. D., U. S. A.
HOUSE, CHARLES E., Private, 1st Cl.	M. D., U. S. A.
INMAN, JOHN, Private, 1st Cl.	San. C., U. S. A.
ISAACS, DAVE, Private, 1st Cl.	M. D., U. S. A.
ISER, CLAUDE C., Sergeant	M. D., U. S. A.
JAECKEL, SIDNEY S., Private	M. D., U. S. A.
JANETT, HIRAM G., Sergeant	M. D., U. S. A.
JENSEN, INGEMAN, Private, 1st Cl.	M. D., U. S. A.
JETTON, HERMAN J., Private	M. D., U. S. A.
*JOHNSON, AXEL W., Sergeant	M. D., U. S. A.
JONES, LEON E., Private	M. D., U. S. A.
JOVENGO, JOHN, Private, 1st Cl.	M. D., U. S. A.
JOYNER, DENNIS G., Private, 1st Cl.	M. D., U. S. A.
JULIAN, ARMAND, Private	M. D., U. S. A.
KARALES, JAMES S., Private	M. D., U. S. A.
KARLSON, ERIK P., Private, 1st Cl.	M. D., U. S. A.
KEESE, FRANCIS A., Private, 1st Cl.	M. D., U. S. A.

* Died in Service.

KELLER, BERNARD J., Private, 1st Cl.	M. D., U. S. A.
KESISKY, ANDREW J., Private	M. D., U. S. A.
KRINGS, FRANK, Private, 1st Cl.	M. D., U. S. A.
LANDERS, THOMAS J., Private	Inf., U. S. A.
LANG, WALTER S., Private	Q. M. C., U. S. A.
LANGWORTHY, CLARENCE, Private, 1st Cl.	M. D., U. S. A.
LANIGHAN, JOHN E., Private, 1st Cl.	M. D., U. S. A.
LANZE, JOSEPH, Private	M. D., U. S. A.
LAUNDERS, HERMAN A., Private	M. D., U. S. A.
LEDYARD, PHILIP S., Private	M. D., U. S. A.
LEGETTE, THORNEY, Private	M. D., U. S. A.
LEIPOLD, CHARLES B., Sergeant	Q. M. C., U. S. A.
LEWIS, JOHN L., Private	M. D., U. S. A.
LITTEN, GILE A., Private, 1st Cl.	M. D., U. S. A.
LONGENECKER, ELMER J., Private, 1st Cl.	M. D., U. S. A.
LOY, MARVIN J., Private, 1st Cl.	M. D., U. S. A.
MACDONALD, ARCHIE, Private, 1st Cl.	M. D., U. S. A.
MACKEY, JOHN, Private	M. D., U. S. A.
MAHER, JOHN F., Private	M. D., U. S. A.
MANILLA, HARRY, Private, 1st Cl.	M. D., U. S. A.
MANORE, CURTIS I., Private, 1st Cl.	M. D., U. S. A.
MARSHALL, JAMES A., Sergeant	M. D., U. S. A.
MARVIN, RICHARD L., Corporal	M. D., U. S. A.
MASSELIS, EMIL, Private	M. D., U. S. A.
MASSEY, INEAL J., Private	Inf., U. S. A.
MCCAFFERTY, WAYNE, Sergeant	M. D., U. S. A.
MCDERMOTT, JOHN J., Private, 1st Cl.	M. D., U. S. A.
MCDONALD, THOMAS E., Private	M. D., U. S. A.
MCDONOUGH, PATRICK, Private	M. D., U. S. A.
McELROY, ARTHUR H., Wagoner	M. D., U. S. A.
McFANIN, JOHN E., Private	M. D., U. S. A.
MCGANN, FRANK J., Private, 1st Cl.	M. D., U. S. A.
MCGUIGON, CHARLES, Private, 1st Cl.	M. D., U. S. A.
McLEOD, EDMUND S., Private, 1st Cl.	M. D., U. S. A.
McMANUS, CUMMINS W., Private, 1st Cl.	M. D., U. S. A.
McMILLAN, ANDREW, Private	M. D., U. S. A.
McMILLAN, EMERSON C., Private, 1st Cl.	M. D., U. S. A.
McPHERSON, SAMUEL O., Sergeant, 1st Cl.	M. D., U. S. A.
MELANDER, OSCAR M., Private	Q. M. C., U. S. A.
MENDELSON, PHILIP, Private, 1st Cl.	M. D., U. S. A.

MERCER, GEORGE E., Private	M. D., U. S. A.
MICHAELS, ERNEST W., Private	Inf., U. S. A.
MILLER, CLAYTON F., Private, 1st Cl.	M. D., U. S. A.
MILLER, WILLIAM F., Private, 1st Cl.	M. D., U. S. A.
MILLWEE, VENABLE H., Private	M. D., U. S. A.
MINSER, CHARLES H., Private, 1st Cl.	M. D., U. S. A.
MISH, GEORGE H., Private, 1st Cl.	Inf., U. S. A.
MITCHELL, DAVID, Private	M. D., U. S. A.
MOORE, MORGAN E., Private	San. C., U. S. A.
MONROE, MILO L., Private, 1st Cl.	M. D., U. S. A.
MORGAN, JOHN R., Corporal	M. D., U. S. A.
MORRELL, GUY E., Private, 1st Cl.	M. D., U. S. A.
MYERS, SYLVAN H., Corporal	M. D., U. S. A.
NADEAU, ALBERT, Private, 1st Cl.	M. D., U. S. A.
NALEVKI, HERMAN, Private	M. D., U. S. A.
NAPARSTECK, AARON, Private	M. D., U. S. A.
NATOLE, GUISEPPE, Private	M. D., U. S. A.
NELSON, CARL V., Private	M. D., U. S. A.
NELSON, EINAR, Private, 1st Cl.	M. D., U. S. A.
NEUDECK, CLAYTON F., Private	M. D., U. S. A.
NICHOLS, WILLIAM J., Private, 1st Cl.	M. D., U. S. A.
NOBLE, FRED W., Sergeant	M. D., U. S. A.
NORQUIST, HERBERT B., Private, 1st Cl.	M. D., U. S. A.
NORTON, JOHN H., JR., Wagoner	M. D., U. S. A.
NOTESTINE, ALVIN T., Wagoner	M. D., U. S. A.
NYBERG, ELMER E., Private, 1st Cl.	M. D., U. S. A.
O'FARRELL, ROBLEY E., Private, 1st Cl.	M. D., U. S. A.
O'NEAL, GORDON A., Private, 1st Cl.	M. D., U. S. A.
OLSON, AXEL K., Private, 1st Cl.	M. D., U. S. A.
OLTHOFF, CLAUS, Private	M. D., U. S. A.
OUDEKIRK, ELMER W., Private, 1st Cl.	M. D., U. S. A.
OYLER, ROSS E., Private, 1st Cl.	M. D., U. S. A.
PAGE, WILLIAM, JR., Cook	M. D., U. S. A.
PARKER, HARRY D., Cook	M. D., U. S. A.
PASSEY, GEORGE I., Private	M. D., U. S. A.
PATTERSON, ROBERT D., Private	M. D., U. S. A.
PATTISON, HENRY F., Private	M. D., U. S. A.
PAYNE, FRED, Private	M. D., U. S. A.
PEFFLEY, CARL F., Private, 1st Cl.	M. D., U. S. A.
PELKEY, JOSEPH C., Wagoner	M. D., U. S. A.

PENCE, DAVID C., Private	M. D., U. S. A.
PENN, CHARLES M., Private, 1st Cl.	M. D., U. S. A.
PENNINGTON, JAMES C., Sergeant	M. D., U. S. A.
PEOUTKE, ANDY J., Private	M. D., U. S. A.
PERRIER, HECTOR, Private, 1st Cl.	M. D., U. S. A.
PERRINE, JAMES L., Private	M. D., U. S. A.
PERRY, HARRY L., Private	M. D., U. S. A.
PETERSON, ERNEST N., Private, 1st Cl.	M. D., U. S. A.
PETERSON, SPENCER W., Private	M. D., U. S. A.
PHILLIPS, THOMAS E., Private, 1st Cl.	M. D., U. S. A.
PHILYAW, HOMER C., Private, 1st Cl.	San. C., U. S. A.
PICKETT, JOHN, Private, 1st Cl.	M. D., U. S. A.
PIERCE, AUSTIN R., Sergeant, 1st Cl.	M. D., U. S. A.
PINCHAK, MORRIS, Private	M. D., U. S. A.
PINE, GEORGE E., Sergeant	M. D., U. S. A.
PONTICELLI, ANTHONY, Sergeant, 1st Cl.	M. D., U. S. A.
POWELL, ROBERT W., Private, 1st Cl.	M. D., U. S. A.
POWERS, WILLIS A., Private	M. D., U. S. A.
PRIDGEN, GEORGE W., Private, 1st Cl.	M. D., U. S. A.
PRIEST, JAMES E., Private	M. D., U. S. A.
PRINCLER, RICHARD W., Private	M. D., U. S. A.
PROVENCE, JOHN, Private	M. D., U. S. A.
PUARICA, WAYNE I., Cook	M. D., U. S. A.
PURCELL, MICHAEL, Private, 1st Cl.	M. D., U. S. A.
PURVES, THOMAS, Private, 1st Cl.	M. D., U. S. A.
RATKOVITZ, EDWIN, Private	M. D., U. S. A.
RAVENSTAHL, JOHN R., Private	M. D., U. S. A.
REDFIELD, KNOWLTON T., Private, 1st Cl.	M. D., U. S. A.
RENAUD, JOSEPH W., Private, 1st Cl.	M. D., U. S. A.
REIFSCHNEIDER, JOHN C., Private, 1st Cl.	M. D., U. S. A.
REYNOLDS, WILLIAM J. B., Wagoner	M. D., U. S. A.
RIACH, FRANCIS D., Cook	M. D., U. S. A.
RICE, FRANCISCO, Sergeant, 1st Cl.	M. D., U. S. A.
RICHARD, GEORGE A., Corporal	M. D., U. S. A.
RICHARDS, HOBSON D., Private, 1st Cl.	M. D., U. S. A.
RIEGLE, PAUL W., Private, 1st Cl.	M. D., U. S. A.
RILEY, JOSEPH F., Private	M. D., U. S. A.
RITTER, THOMAS D., Private, 1st Cl.	M. D., U. S. A.
RIVARD, MOSES W., Private, 1st Cl.	M. D., U. S. A.
ROBINSON, CARTER, Wagoner	M. D., U. S. A.

ROBERTS, EDGAR V., Private	M. D., U. S. A.
ROBERTS, LOUIS R., Corporal	M. D., U. S. A.
ROBERTS, LYMAN, Private	M. D., U. S. A.
ROBINSON, RAY A., Corporal	Q. M. C., U. S. A.
ROBINSON, WALTER K., Private	M. D., U. S. A.
RODGERS, JOHN E., Private	M. D., U. S. A.
ROHEN, ELMER J., Private, 1st Cl.	M. D., U. S. A.
ROMDENNE, EDWARD V. T., Private	M. D., U. S. A.
ROSAND, ARTHUR J., Cook	M. D., U. S. A.
ROSENBERG, DAVID, Private	M. D., U. S. A.
ROUSE, JOHN P., Private, 1st Cl.	M. D., U. S. A.
SANDGRIDGE, GILBERT T., Private	M. D., U. S. A.
SCARBOROUGH, WILLIAM, Private	M. D., U. S. A.
SCHIEK, CHRISTIAN J., Cook	M. D., U. S. A.
SCHILZ, GEORGE, Private, 1st Cl.	M. D., U. S. A.
SCHIRRA, JOHN M., Private, 1st Cl.	M. D., U. S. A.
SCHNATTERER, ROBERT J., Wagoner	M. D., U. S. A.
SCHULTZ, FRED, Private	M. D., U. S. A.
SEAMANDS, MELVIN C., Private, 1st Cl.	M. D., U. S. A.
SEARLE, CHARLES E., Private	M. D., U. S. A.
SEARS, MURRILL, Private, 1st Cl.	M. D., U. S. A.
SEARS, NATHAN, Private	M. D., U. S. A.
SELTZER, RUSSELL S., Private	M. D., U. S. A.
SHERIDAN, JOSEPH M., Private, 1st Cl.	M. D., U. S. A.
SHOCKLEY, JOHN F., Private	M. D., U. S. A.
SHUPE, JOHN M., Private, 1st Cl.	M. D., U. S. A.
SKINNER, ALBERT J., Private	M. D., U. S. A.
SLOANE, ROBERT G., Private, 1st Cl.	M. D., U. S. A.
SLOCUM, FRED H., Private, 1st Cl.	San. C., U. S. A.
SMITH, GLENN S., Private	M. D., U. S. A.
SMITH, JAMES T., Private, 1st Cl.	M. D., U. S. A.
SMITH, JOSEPH J., Private	M. D., U. S. A.
SMITH, VIRGIL C., Cook	M. D., U. S. A.
SOCZKI, PAUL, Private	M. D., U. S. A.
STASZAK, FRANK, Private	M. D., U. S. A.
STEPHANS, ARTHUR E., Private, 1st Cl.	M. D., U. S. A.
STEWARD, ALFRED H., Private	M. D., U. S. A.
STIVERS, IRA E., Private, 1st Cl.	San. C., U. S. A.
STODDARD, FREEMAN L., Sergeant	M. D., U. S. A.
STONE, WILLIAM T., Private, 1st Cl.	M. D., U. S. A.

STONEBURNER, WORTH, Private, 1st Cl.	M. D., U. S. A.
STREEP, CHARLES, Private	M. D., U. S. A.
STREMSKI, ALBERT, Cook	M. D., U. S. A.
STUBBS, THADDEUS E., Private, 1st Cl.	M. D., U. S. A.
SURINE, JAMES E., Cook	M. D., U. S. A.
SUYDAM, MARVIN, Private, 1st Cl.	M. D., U. S. A.
SWAIN, SHERMAN N., Sergeant, 1st Cl.	M. D., U. S. A.
SWANSON, CARL A., Corporal	San. C., U. S. A.
SWARTZ, THEODORE S., Private, 1st Cl.	San. C., U. S. A.
SZYMELFENYG, FRANK, Private, 1st Cl.	M. D., U. S. A.
TAYLOR, GLEN A., Private, 1st Cl.	M. D., U. S. A.
THOMAS, FRANCIS J., Private, 1st Cl.	M. D., U. S. A.
TILDEN, RALPH A., Wagoner	M. D., U. S. A.
TOBIE, CHARLES T., Private, 1st Cl.	M. D., U. S. A.
TRAVERSIE, ALEXANDER, Private	M. D., U. S. A.
TRUDGEON, FRANK, Private	M. D., U. S. A.
VAN DER WEELE, QUINTEN, Wagoner	M. D., U. S. A.
VAN KIRK, VIRGIL A., Private	San. C., U. S. A.
VAN SCHOIACK, GUY, Mechanic	M. D., U. S. A.
WALLACE, FRANCIS G., Private, 1st Cl.	M. D., U. S. A.
WALSH, JOSEPH A., Private	M. D., U. S. A.
WEST, FOSTER P., Private	M. D., U. S. A.
WEST, THOMAS J., Private	Inf., U. S. A.
WIECHERT, WILLIAM H., Private, 1st Cl.	M. D., U. S. A.
WIERSEMA, RICHARD, Private	M. D., U. S. A.
WILLIAMSON, CARL J., Private, 1st Cl.	M. D., U. S. A.
WILSON, OTLEY W., Private	M. D., U. S. A.
WOLF, HERSCHEL, Private	M. D., U. S. A.
ZEIGER, LAWRENCE A., Private, 1st Cl.	M. D., U. S. A.
ZINN, SIM R., Private, 1st Cl.	M. D., U. S. A.

SPECIAL NURSES' AIDE FOR THE BLIND

VALVA, CARMELIA

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PUTNAM, MARTHA

TREMAIN, EMILY N.

WATT, NELLIE B.

SECRETARY

VOTEY, CONSTANCE

Neurology



ALLYN M. C. BERRIE

Private 1st Cl., M. D., U. S. A.
Died in France, October 9, 1918

MARY F. EMERY

R. N., A. N. C.
Died in United States, May 1, 1919

LUCY N. FLETCHER

R. N., A. N. C.
Died in France, April 24, 1918

AXEL W. JOHNSON

Sergeant, M. D., U. S. A.
Died at sea, March 17, 1919



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