American Red Cross base hospital no. 38 in the World War. United States army base hospital no. 38, organized under the auspices of the Jefferson Medical College and Hospital, stationed at Nantes, France, 1918-1919, by W. M. L. Coplin.

American Red Cross Base Hospital No. 38

2-1923

American Red Cross Base Hospital No. 38 in the World War - IX: Laboratory Division

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IX

LABORATORY DIVISION

THE plan of a Hospital Center, such as Nantes, contemplated a central laboratory in charge of a Laboratory Officer and, in addition, each Base Hospital was supposed to have its own clinical laboratory; on this basis there would be one central laboratory and as many subsidiary laboratories as there were hospitals. When "38" reached Nantes the laboratory of No. 34 was in operation; the buildings for our organization were under construction and not completed for some weeks, but soon after our arrival the laboratory detail became active. Major Coplin during his brief stay directed the organization and installation of equipment the details of which were executed by Lieutenant Julian E. Meyer and Lieutenant Marshall W. Sinclair, and the laboratory personnel including Sergeants Eugene Bellem and George Allen Smith, and Privates Joseph Jones, 3rd, Frank Todd and Frank Frei. Something was done in July but not until August was the necessary equipment received and the work actively begun.

The functions of a base hospital laboratory such as
that of "38" are not unlike those of a civilian hospital in time of peace, different mostly in the magnitude of certain phases of the work; this particularly applies to wound bacteriology which, during the world's war attained a prominence never before reached; the almost universality of infection of all open wounds, the frequency of gas gangrene and the ubiquity of gas organisms and other wound bacteria gave the study of wound flora an importance of the first order. Impending erysipelas or other streptococcic infection and gas gangrene could be detected and established by laboratory examination and usually, with certainty, by no other means. Theoretically all wounds required investigation but the magnitude of such an order would have overwhelmed any laboratory in Christendom; most wounds were studied and important ones, notably those regarded by the attending officer as suspicious, received special consideration. The indubitable diagnosis of malaria fell to the laboratory and, in other cases, blood examinations often told how a patient was doing, what his chances were and whether or not he might be expected to withstand an operation. The attending officer might suspect an infection and the laboratory allay his fears or support his conviction. The kind of pneumonia, the particular organism causing it, and the strain or type could be determined by the laboratory; when it is recalled that a hospital in a single week had under treatment more than 800 patients believed to have pneumonia, the magnitude
of laboratory activity may, in some degree, be realized.

Then other epidemiologic questions—diphtheria, typhoid, the dysenteries, cerebrospinal fever—created additional demands; in many of these conditions prompt diagnosis and early treatment were possible only when the laboratory had been able to complete a satisfactory examination and submit a report. Serology also claimed considerable attention.

Laboratories were the routine purveyors of all therapeutic sera, antitoxins and vaccines, made many of them, carried stocks of such agents, often administered them, and always were called upon to fill requisitions. This of itself was an important and large undertaking.

As all water for drinking purposes was infected and as chlorinization was necessary, this required constant laboratory control. Division laboratories tested out waters, passed on their potability, and supervised measures to make the bad and unsatisfactory safe for use.

At times the sterilization of dressings, instruments and ligatures, indeed all operating room technic, came in for a share in the time and resources of the laboratory worker. The examination of the dead that the living might be better administered to, was one of the many duties.

By delayed primary, or by secondary suture, surgeons often desired to close many open wounds, both recent and old, thereby lessening suffering and hastening recovery; but before such procedures could be applied,
the wound must first be shown to be sterile, or relatively so, and this usually required frequent and, many times, tedious or at least technically trying bacteriologic study.

Reports, reports, then more reports, must be prepared, all of which required time.

The scientific features, the practical and other results of much of this work during, and notably after the war, formed the texts of many papers that, from time to time, have been read before medical and other scientific organizations and later appeared in medical publications. Those phases of the work would be out of place here. The one thing that every detail seemed to make constantly and obtrusively evident was the frightful inhumanity of war; the atrocious barbarism of it all; fatal infections, the frightful injuries, mutilations, many a face forever disfigured, the wrecks that came to the morgues, sightless staring eyes, ruptured eardrums, gassed larynges and water-logged lungs, the human body devastated, crushed and destroyed like a summer garden in Flanders, the broken clay, the ruin from which the flower had been despoiled or whence the soul had fled—these, like veritable demons, laughed at the painted veneer figure called civilization, and mocked the hypocrisy that sometimes masquerades as following the meek and lowly, the just and forgiving, the humane and divine Nazarene.