

# Time Marches On

1930–1931



*"History never repeats itself exactly, because the world moves."<sup>1</sup>*

## Carl Rogers Darnall

He was the sort of quiet unspectacular looking man who so frequently influences the course of history but leaves little tangible evidence of his passing. He was deeply devoted to his family and his snub-nosed old Franklin car. And his knowledgeable enthusiasm for old glass, his gentle manners, droll humor<sup>2</sup> and his unfailing kindness assured him an affectionate respect and consideration<sup>3</sup> not always accorded some of his more politically agile contemporaries. He served as chemistry instructor and secretary of the Army Medical School from 1903–1913, and until the "Manchu Law" finally compelled a change of station. He had, during his long stay at the School, developed the Darnall Field Filter, later replaced by the Lyster bag, as well as a process of water chlorination that proved of inestimable value to national as well as military public health. Some considered that the treatise on "The Purification of Drinking Water for Troops in the Field" by Captain Carl Rogers Darnall, Assistant Surgeon, U.S. Army, was the most significant paper published in *The Military Surgeon* during 1908.<sup>4</sup> This, however, was but the prelude to his really monumental discovery of a method for purifying water by utilizing compressed anhydrous chlorine, which could be released from cylinders in controlled amounts. To prove this "liquid chlorination method" practical he invented the chlorinator, a complex mechanical apparatus for delivering "liquid" chlorine into city water supplies, swimming pools and sewage treatment systems.

Darnall's method and apparatus was patented in the United States and in thirteen other countries and is now used throughout the world, but he gained little financially from his invention. When faced with the alternative of resigning to become a manufacturer of chlorinators or continuing his Army medical career he chose the latter course and sold his patents outright to the Wallace-Tiernan Company. His article "The Purification of Water by Anhydrous Chlorine," which appeared in the *Journal of the American Public Health Association* in November 1911 was undoubtedly the most important of his several published works. Some years later legal priority for this invention was established when the company won a civil suit against the city of Philadelphia for infringing on the Darnall patents.

He began the practice of testing medical supplies and equipment for the Surgeon General's Office during his first assignment at the Army Medical School, while it was still located in the old Museum-Library building. Therefore it was principally due to the efforts of this phlegmatic, methodical physician-chemist, fondly called "Old Wooden Face" by his contemporaries, that the Medical Department was saved thousands of dollars and the humiliation of being the victim of well-meaning but impractical inventors and

over-zealous salesmen.<sup>5</sup> Finally, as a result of the chemical and structural analysis of drugs and equipment, the Medical Department established a separate testing laboratory.<sup>6</sup> When he was promoted and reassigned in Washington during World War I, Colonel Darnall devoted full time to medical supplies, and as Kean, the recorder, noted, under his "efficient management everything was ready for shipment at a moment's notice."<sup>7</sup>



*Carl Rogers Darnall, Post Commander  
Dec. 12, 1929–Dec. 31, 1931*

Like many scientifically inclined men, Colonel Darnall cared little for social life, and although a close friend<sup>8</sup> and associate of General Ireland, he apparently paid little attention to Corps politics. He served for a time as executive officer in the Surgeon General's Office, taking, in his quiet and efficient way, a load off the Surgeon General's shoulders, thus freeing the gregarious, politically astute General Ireland of many routine

duties. It was a comfortable and pleasant association, for the Surgeon General felt that he could "safely leave the office and that affairs would go on as usual, or at least not be tangled."<sup>9</sup> His two-year command at the Army Medical Center, as a Brigadier General, came at an inconspicuous time for any extraordinary achievements. As the depression had set in he had no opportunity to alter the status quo.

## Progress Versus Recession

The building program, long planned as a Medical Department activity, was then nearing completion, and on December 30, 1930, the last temporary wooden buildings were abandoned for ward use.<sup>10</sup> The 1919 fire had not been forgotten; thus the newly opened neuropsychiatric building<sup>11</sup> attracted attention from the press.<sup>12</sup> Only fifty-four of the 104 beds were occupied at the time of the official opening<sup>13</sup> and structurally it was not without drawbacks, although such matters were not published. For instance, the building had four floors and an elevator, but the elevator was not long enough to accommodate a wheeled litter, and patients had to be carried from one floor to another by hand-litters. An underground passage connected this section with the main part of the hospital, but the Section Chief, whose patients were troublesome, to say the least, believed that chaperoning the patients to the laboratory and the various clinics was an administrative hardship<sup>14</sup> in that such a practice necessitated the assignment of extra attendants.

Regardless of some drawbacks, the modern building was a vast improvement over former facilities. By August 1931 it not only shared in the hospital's public address system, but the strictly closed wards housing the disturbed patients had their own arrangements for movies, shown by Red Cross personnel. The inexorable advance of the depression was noticeable in the 148 more neuropsychiatric cases admitted in 1931 than in 1930.

The hospital registrar's office maintained careful statistics on admission and discharges. Thus the number of admissions by nomenclature of disease, the number who died, who were returned to duty, who were retired or separated from the service on the Certificate of Discharge for Disability, familiarly known as the CDD to enlisted men, is an accurate means of gauging the general physical condition of the military population of the Regular Army. Laboratory diagnostic methods were becoming increasingly accurate, and in 1931, encephalograms were used as a diagnostic aid in fifteen cases, with the clinical recordings of the staff physicians at Walter Reed indicating a growing awareness of the so-called psychoneurotic disabilities of young American males. For instance, as some

*228 military patients (were) discharged on certificates of disability from the section (NP) during the year. The fact that a very large proportion of these discharges were for functional disturbances that existed prior to enlistment, provides a strikingly unfavorable commentary on our recruiting system. One is impressed with the enormous amount of time and money that was fruitlessly expended in recruiting, clothing, subsisting, attempting to train, and finally in hospitalizing and affecting the discharge of these individuals.*<sup>15</sup>

The Medical Service staff was concerned with the average number of days that patients spent in the hospital prior to discharge or transfer to another institution. For instance, definitive care was not provided for tuberculous patients, for the Army maintained Fitzsimons General Hospital for this purpose and the Veterans Bureau had its own facilities. Nevertheless, the average tuberculous patient waited twenty-seven



1930, *First complete aerial survey*

days between the day of request for transfer to another hospital and the day of departure. The average neuropsychiatric patient waited thirty-two days; and soldiers under permanent separation orders waited as much as forty-two days.<sup>16</sup>

## Operational Affairs

The new Clinic Building, which housed dentistry, X-ray and the physical therapy rooms, represented the most modern hospital planning. Roentgenology occupied the second floor but had an additional completely shock-proof X-ray unit in the main building, near the operating room, and a special unit in the Genito-Urinary Clinic. During 1931 and in these three clinics, some 17,350 cases were examined by X-ray, 1,572 received treatment.<sup>17</sup>

Of the 7,200 total new admissions to the hospital in 1931, 2,774 were Veterans Bureau cases and 1,747 were patients from the United States at large.<sup>18</sup> The distribution in class of case was much as usual since the acceptance of Veterans' beneficiaries; roughly, the number of officers, nurses and others (civilians) equaled the total number of enlisted men admitted, but the number of Veterans' cases was always in excess of the number of enlisted men.<sup>19</sup> The normal bed capacity had dropped from 1,200 to 1,000 fixed





*1931, Adding to the Army Medical School*

beds,<sup>20</sup> but the Dietetic Department reported that 1,772 individuals were fed daily, this number including the nurses, dietitians, aides and the personnel fed in the detachment cafeteria. It was cause for concern in the Dietetic Department that the ration had a fluctuating but consistently low value, as, for instance, 0.33 in October 1931, and that approximately sixty per cent of the bulk was represented by meat, a high cost item. The dietetic service therefore suffered a hardship in proportion to the change in commodity prices, and it was forced to exercise the strictest economy in order to stay within the budget. Post Exchange dividends were low or nonexistent by this time and could provide little in the way of subsidy. Thus staffing and serving Mess I, for patient-officers, with tray and table service; Mess III, the detachment's own cafeteria; and Mess IV, the Nurses' Mess, which provided table service, was a dietary and administrative undertaking deserving the highest praise.

The new professional concept of transfusing patients with bloodstream infections was reflected in the 117 blood transfusions given in 1931. The 1,422 local anesthetics, 1,769 general anesthetics, and 467 spinal anesthetics, in the latter case an increase of 250 per cent over the 162 spinal, illustrated the changing trends in operating room techniques.<sup>21</sup> The Walter Reed hospital then was using a Sanborn portable bedside

electrocardiographic machine and one stationary Hindle #3. In January 1931, a pulse wave recorder and a Tycos Dermatherm machine were added.

In 1930, the Chief of the Laboratory Service, which was working in conjunction with the Army Medical School laboratories, complained more loudly than usual over the paucity of replacements for laboratory personnel. Only three enlisted men on duty January 1, 1929 completed the year. Four laboratory-trained men accepted civilian positions, a matter easily understood as only three of them received a cash salary of as much as \$50.00. So, said the laboratory chief, "the constant training of green men is a continuous grind" and in order "to offset the rapidly changing enlisted force more nurses were secured."<sup>22</sup> It was even proposed that a small group of nurse technicians be trained for reassignment in the various general hospitals. This would doubtless have been acceptable had War Department funds been available for increasing the strength of the Corps, for so many civilian nurses were out of work a year later that the Army School, then on the verge of closing, adopted the slogan of the national nursing groups "Fewer and Better Nurses."<sup>23</sup>

### Army Medical Center

The average monthly strength of the Troop Command in 1930 and 1931 was approximately 530, with the majority of the men assigned to ward duties in the hospital. Manpower was readily available, as a result of the dearth of civilian jobs, and



1931, Basal Metabolism Room; Laboratory, WRAH

after November 1, 1931, War Department policy restricted enlistments to men reenlisting within three months after discharge. At the Army Medical Center company commanders were showing a decided agreement with the newer concepts of personnel administration, such as shorter working hours, which, of course, required more personnel to perform the usual duties. This was an administrative disadvantage, for it represented a vital decrease in the detachment strength and thus affected the ready discharge of hospital duties. In addition to shorter working hours, more frequent furloughs were thought to encourage reenlistments and strengthen morale.

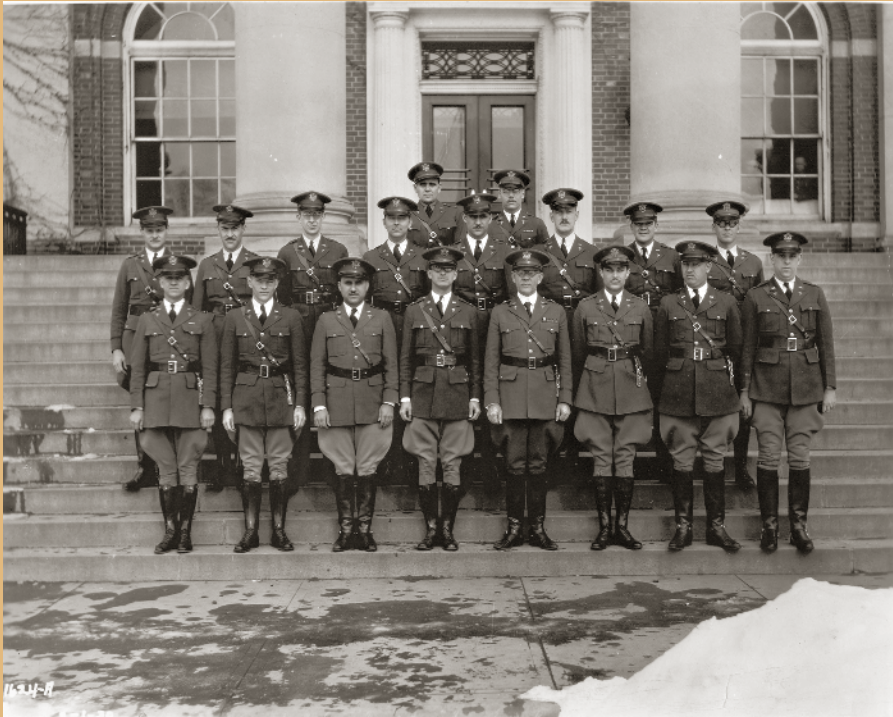
The general unemployment situation apparently curtailed desertions, which dropped from forty-nine to forty-one, and AWOLs, which dropped from 163 to 117. However, not even economic distress affected the venereal disease register, for there was only one less case reported than in the previous year.

Station reenlistments at the Army Medical Center increased from sixty to eighty-seven, and the men appeared to be well satisfied both with living conditions and the kind of work performed. Church-going was not an all-absorbing pastime, but the welfare and recreation officer stressed athletics, and judging from the increase in book circulation at the Post Library, it was cheaper to improve the mind than to wander far afield in search of amusement.

## Reorganization

Army Medical Center administrative functions were reorganized in 1931. The staff then consisted of the Commanding General, an Executive Officer, an Adjutant, a personnel adjutant and the chiefs of all installation support activities such as Quartermaster, Finance, Signal, the Surgeon (hospital commander), Chaplains, Medical Supply, and the Recreation Officer. The assistant commandant was responsible for all matters of instruction, but he was not concerned with the administration or discipline of the School personnel.<sup>24</sup> Surprisingly, there were three Commanding Officers of the School in a one-year period: Colonel Henry C. Fisher, July 1, 1929 to October 6, 1929, Colonel Charles F. Craig, October 7, 1929 to May 18, 1930 and Colonel Edward B. Vedder, May 19, 1930 to June 30, 1930.<sup>25</sup>

The various School functions were now so well organized that the professional work was almost routine, even stereotyped. Lack of laboratory space was again a major problem, but the proposed expansion of the School building was expected to remedy the situation. Relocation of the School on the Army Medical Center grounds had, however, increased the number of administrative duties required of the staff members, and details as Officer-of-the-Day, to Courts Martial and Boards absorbed a great deal of time heretofore devoted to scientific work. Colonel Russell, who had retired in 1919 and affiliated with the Rockefeller Foundation, was still interested in Army Medical School activities. As an internationally known expert he was familiar with world health problems and research projects, and regretfully, it seems, he called attention to the fact that the School was not maintaining its past record for research. In



1932, General Darnall and internes

addition to an apparent lack of interest, however, he also named such restrictions as the “onerous” property responsibilities and the increase in the teaching load that may have modified or curtailed the faculty output.<sup>26</sup> Certainly there was less original research work and writing undertaken at the Army Medical School during this lean two-year period.

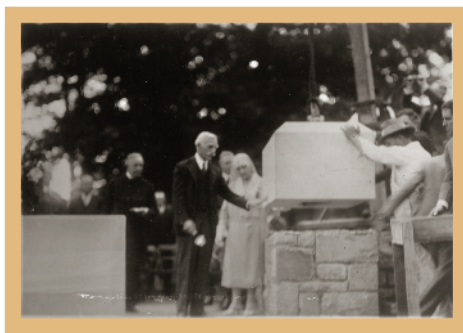
The uncertain economic condition of the country as a whole, the general movement toward a reduction in the total supply of nurses, and the cost of operating the Army School of Nursing, finally brought orders for its closure. The Superintendent of the Corps had successfully resisted earlier moves to close the School, and General Ireland, soon to be out of office, delayed rather than create undue friction in his staff. Some of the General Staff officers, friends and military classmates of the incoming Surgeon General Patterson, warned him informally that the Army School of Nursing would be closed by higher directive if he didn’t undertake a “housecleaning” of his own accord.<sup>27</sup> Therefore, as one of his first official acts, General Patterson suspended the training school on August 12, 1931, with orders for closure on January 31, 1933, with graduation of the last class.<sup>28</sup> Thus there ended, insofar as the Medical Department was concerned, a costly private lesson in subsidized education. In the development of the nursing education program, however, it would long stand as a monument to progress.



The thirty-fifth session of the basic course for Medical Department officers began at the Army Medical School on September 2, 1930 and ended January 30, 1931, with graduation of forty-eight officers who then proceeded to Carlisle, Pennsylvania, for the course in field medicine. The work in Sanitary Chemistry had gradually become less important in thirty years, for the majority of the civilian undergraduate medical schools were by then teaching this subject. Thus during the last year of his administration, the course that Carl Rogers Darnall had taught at the Army Medical School in 1903 was replaced by toxicology. The course in pathology was lengthened, and brief instruction was offered in the medico-legal aspects of post-mortems. Among other changes, the course in surgery was itemized for each day and was "made more practical by eliminating very largely the lecture system."<sup>29</sup>

The tenth advanced course, beginning on February 2, 1931 and ending on May 28, was drastically modified. Whereas the School had previously offered (a) Preventive Medicine, (b) Clinical Medicine and Surgery, and (c) Roentgenology, the Training Division of the Surgeon General's Office proposed that student officers elect a preferred subject. Of the six officers in attendance, one elected a special course in internal medicine and clinical medicine, two elected clinical medicine, and three elected clinical surgery.<sup>30</sup> Specialization was more marked in the elective graduate training of civilian doctors, and the Army was showing definite signs of following the trend. Therefore, considerable effort was made adequately to prepare the students as functionaries in a post medical service, where it was obligatory that the Army doctor have knowledge of more than a single field.

Colonel Keller not only occupied a nearly duplicate set of quarters to that occupied by the Post Commander, but his evaluation of the professional abilities of young medical officers influenced their careers. The professionally able Chief of the Medical Service, the intransigent, energetic red-haired Lt. Colonel Ernest R. Gentry, was allegedly the only man in the hospital who could hold his own ground with the militant surgeon. When a member of the Training Division, office of the



*Left Picture: Andrew Mellon, Secretary of the Treasury. Right Picture: Mrs. Walter Reed at right with officer. Laying Cornerstone, Memorial Chapel, May 28, 1930.*

Surgeon General, persistently advocated a rotating service for doctors in the general hospitals, better to prepare them for Post life, Colonel Keller “bucked” the program at Walter Reed and refused to have internists rotated to his service. If the training officer persisted in furthering this heretical plan, declared the Chief of the Surgical Service whimsically, it would serve him right to sometime have an internist operate on him.<sup>31</sup>

## The Tabernacle

A mortuary chapel had long been a necessity for the Post, a quiet dignified place out of sight of the morgue refrigerators and other grim evidence of death. Dr. Borden had planned for such a building, but in the years when the hospital was small and public funds were scarce, all improvements were directed at housing the sick.

One of the more obvious needs for a sanctuary was evident during the influenza epidemic of 1918, when the mounds of caskets were piled under a tent fly placed behind the morgue. After the YMCA and Knights of Columbus erected temporary structures during the World War I building boom, there were places, even if inappropriate, for funerals, an occasional wedding, and for church services. When these buildings were razed to make space for the new Clinic Building and the “Section,” the adaptable Red Cross Recreation house accommodated such services as a matter of course. With chameleon-like rapidity it could be changed from a public auditorium suitable for the graduation exercises of the Army Medical School, into a moving picture theater or a Sunday School room for the Post children. In 1922, spurred by Miss Lower and supported by General Glennan, the Gray Ladies began to plan for construction of a Memorial Chapel.<sup>32</sup>

The northeast corner of Dahlia and Fourteenth Street was the first choice of locations, but this area included some of the condemned civilian houses then being used as officers’ quarters, and so the opposite corner was selected in 1924. According to the records, a cash donation of five dollars, given by an ex-soldier-vaudeville entertainer, formed the nest egg for the Chapel fund. Other gifts varying from twenty-five cents to \$32,000.00 were obtained by the energetic Gray Ladies,<sup>33</sup> but it always seemed to be Mrs. Rea, their fairy godmother, who provided a much-needed donation at the opportune time. The nurses, hospital corpsmen and Red Cross workers contributed the proceeds from an amateur performance of *Believe me, Xanthippi*; Poli’s Theater used D.W. Griffith’s famous picture *America* for a benefit performance. The nurses at Walter Reed raised money by cake sales and off-duty chores, and various wealthy benefactors chipped in. After formation of the Altar Guild in 1932, the wives of the military personnel shared in the responsibility for all future activities.

Fifty thousand dollars was first thought to be sufficient for the building fund,<sup>34</sup> and so the Gray Ladies sought the official blessing of such military dignitaries as the Surgeon General, the Chief of Staff of the Army, and on the Chief of Staff’s requirement, Congressional authority, in order to build on Government property. The new project was widely advertised, and Mrs. Walter Reed was among the distinguished visitors invited for the ground-breaking ceremonies on November 11, 1929, “on the eleventh hour of the eleventh day of the eleventh



1931, *Memorial Chapel*

month of the eleventh year after the Armistice.”<sup>35</sup> She was under the impression that, like the hospital, the Chapel was a specific memorial to her distinguished husband, and she came to the ceremony prepared to consecrate the ground in his memory.<sup>36</sup>

In the ensuing months the excavations uncovered military relics of the Battle of Fort Stevens, such as minnie balls and lead bullets left by McCook’s and Early’s men.<sup>37</sup> As in the case of the hospital, it was therefore singularly appropriate that the Chapel, “a memorial to the men who gave their lives to service,”<sup>38</sup> was erected on ground once defiled by war. The corner stone was laid on May 28, 1930, and it enclosed an appropriate record of the various Post activities. On May 16, 1931, five days before the Chapel was formally dedicated, a wedding ceremony was performed. On May 21, 1931, the day of dedication, the infant son of a medical officer was baptized. Three services were held on June 7: the first, a 7:30 AM Protestant communion service for the Gray Ladies; the second, an 8:30 AM Roman Catholic High Mass and the third, at 10:30, was a general consecration of the building as a non-sectarian chapel. The organist, Major Cyrus B. Wood, Medical Corps, Instructor in Chemistry and Toxicology at the Army Medical School,<sup>39</sup> was assisted by a choir composed largely of Post personnel. The first funeral conducted in the Chapel was that of an Army Nurse, one who had long been a hospital patient, victim of a malignant disease.



1931, Main Chapel

When the construction bids were examined in October 1929, the \$50,000 estimate had increased to \$84,900 without the windows, the organ, the altar, the handsome flagstone floor and foundation, or the Glennan memorial tower. When finally completed, the building cost \$161,000.<sup>40</sup> The original five-dollar bequest was supplemented by an impressive list of memorial gifts, one of the most beautiful being the “Little Chapel,” or mortuary chapel, designed for small religious gatherings, weddings and funerals. It was equipped by the McCook family, in memory of the fighting McCooks “who served their country in the war for the preservation of the Union,”<sup>41</sup> a gift singularly appropriate because of Alexander McCook’s participation in the battle of Fort Stevens. The small sanctuary as a result of the more frequent use, in time became primarily a Roman Catholic sanctuary. The Gray Ladies collected old silver for the solid silver communion service, made by Private Ralph Grim, a double amputee patient who became an expert silversmith in the rehabilitation shops at Walter Reed.

An article by Jean Eliot from *The Washington Herald* of November 25, 1936, lists some of the more interesting facts regarding gifts and donations to the little building.



*This is a personal little church. Everything in it is memorial to someone much loved. The altar was given by Mrs. Blair Spencer for her Mother, Mrs. John A. Johnson. Princess Boncompagni gave the organ in memory of her father, Gen. Wm. F. Draper. The exquisite rose window was brought from England by Mrs. John W. Davidge to honor her father and mother, John W. Weeks, once Secretary of War, and Mrs. Weeks. Another window was given by the late Representative John Jacob Rogers, whose widow Edith Nourse Rogers, is an enthusiastic Gray Lady. Still another was presented by the nurses at Walter Reed and has a sentimental history, since they earned the money off duty, with laundry work, polishing shoes, baking cakes, even by hauling trunks and furniture in a push cart. The Gray Ladies themselves gave the church bell. The tower, reminiscent of the one on the church at the entrance to Plymouth Harbor, England, is a memorial to Gen. James D. Glennan, who was in command at Walter Reed for eight years. Every stone (actually given by the Misses Elizabeth and Harriet Riley from their farm), every lovely bit of glass, every inch of carved wood is a contribution of affection or representative of individual sacrifice.*



1931, McCook Mortuary Chapel

Although a gem of Gothic loveliness, the Memorial Chapel is the only building on the reservation that fails to harmonize the colonial architecture of the Borden plans. Aloof and secluded, it was often deserted in fact, a lonely sentinel to the wishful thinking of past generations of Gray Ladies and Army Chaplains, who visualized it as a busy tabernacle for the ill and the oppressed. On occasions such as Christmas and Easter it is filled to overflowing, and the congregation is reminiscent of a prearranged DeMille setting. Soldiers in Class A uniform, patients in maroon or blue lounge suits, afoot and on crutches, patients in wheel chairs and now and then one on a litter, nurses in white, nurses in khaki, a few officers but more frequently, their wives, and an occasional squirming and inattentive child form the picture. During the first ten years of its life pews were practically empty, for the exacting demands of a twenty-four hour professional service to patients leaves the duty personnel little free time for church going, and so more than one discouraged Post Chaplain came to believe that the "road to Jerusalem" was unduly rough if it detoured through the Army Medical Center.<sup>42</sup>

When a military transfer to a Southwestern station interrupted Major Wood's duties as organist, Miss Mary E. Schick, the Post Librarian, agreed to fill the place temporarily, but she remained until the pressure of World War II activities interfered. Securing a choir that would be sure to appear on Sundays was a masterly accomplishment. Some of the enlisted choir members would come to rehearsals, but, tempted, by a weekend pass or some off-the-Post amusement, they blithely remained away on Sunday.

There was then neither adequate stipend nor prestige attached to being a chorister, nor was there much joy in singing to row on row of empty pews. In fact it was remarkable that the organist and the chaplain maintained their own morale, for at the time there was little evidence that their services were valued. At one time the choir stalls were entirely empty, and the Chaplain had no assistant to ring the tower bell, that final warning to wandering sheep that the service would start with or without them. Anxiously he came to the organist to explain his dilemma, urging her not to start the processional hymn without him.

Then, with vestments flapping wildly, he rushed out to pull the bell rope and warn the errant of the passing time. Spiritually undaunted, with clothing properly rearranged, he presently marched solemnly into church singing lustily, sans choir support of any kind.<sup>43</sup> Such was the interest in church attendance in the Memorial Chapel during the late thirties. It was, for a time, practically a two-man affair with the Chaplain and the organist as the sole interventionists between the wanderers and the Lord.

## References

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*Occupational Therapy; Ralph Grimm, expert silversmith*

3. Interviews: Maj. Gen. Robert U. Patterson, M.C., Ret., Aug. 24, 29, 1950; Col. John Huggins, M.C., Ret., April 20, 1950; Maj. Gen. Morrison C. Stayer, M.C., Ret., June 10, 1950; Mrs. Margaret Gardner, March 16, 1951.
4. Edgar Erskine Hume, *History of Association of Military Surgeon of the U.S., 1891-1941*, pg 47.
5. Interview with Brig. Gen. Albert G. Love, M.C., Ret., Feb. 13, 1951.
6. *Ibid.*
7. Biography of Gen. J.R. Kean, MSS on file AML, Wash., D.C. pg 99.
8. Interview with Mrs. Mathew Reasoner, April 17, 1950.
9. Interview with Mrs. M.W. Ireland, April 14, 1950.
10. Annual Rpt WRGH, 1931.
11. Hereafter called The Section.

12. "Last Fire Trap at Hospital Barracks," *The Washington Evening Star*, Dec. 31, 1930.
13. *Ibid.*
14. Annual Rpt WRGH, 1931.
15. *Ibid*, pg 67.
16. *Ibid*, 1931.
17. *Ibid.*
18. *Ibid.*
19. Annual Rpt TSG... 1931, pg 362.
20. *Ibid*, pg 361.
21. Annual Rpt WRGH, 1931.
22. Annual Rpt TSG... 1930, pg 339.
23. *Ibid.*, 1931, pg 359.
24. Annual Rpt WRGH, 1931.
25. Annual Rpt TSG... 1930, pg 317.
26. SGO 631.-1 (AMS) GG – War Rec. Div., Nat'l Archives.
27. Patterson interview, *op cit.*
28. Army Medical Bulletin, No. 52, April 1940, pg 104.
29. Annual Rpt.... TSG, 1931, pg 350.
30. *Ibid*, pg 350.
31. Interview with General J.E. Bastion, Sept. 14, 1950, (to perform, he said, specifically, a hemorrhoidectomy).
32. Feltman S. James (comp) *The Story of the Memorial Chapel...* published by the Chapel Guild, nd., on file Library, WRAH.
33. *Ibid*, pg 11.
34. *Ibid.*
35. *Ibid*, pg 13.



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36. Interview with Miss Margaret Lower, Feb. 14, 1951; Mrs. Rea, founder of the Gray Ladies, was accorded this honor.
  37. Mrs. William J. Graham presented The Library with a large collection of such relics, collected at the time the Chapel was built.
  38. James, *op cit*, pg 15.
  39. Minutes of AMS, on file office of the Commandant.
  40. *Ibid*, pg 17.
  41. James, *op cit*, pg 38.
  42. Conversation with Miss Mary E. Schick, 1941.
  43. *Ibid*.

