



# LOWER CAPE FEAR HISTORICAL SOCIETY, Inc. BULLETIN

Volume XXXVI, Number 1

Wilmington, North Carolina

October 1991

## SILENT HOLOCAUST: THE INFLUENZA EPIDEMIC OF 1918-19 AND ITS EFFECTS ON WILMINGTON, NORTH CAROLINA

by William Jackson Green

During the summer and autumn of 1918 the American public was kept well informed as to the progress of Allied arms in Europe. The skill and bravery of the nation's young citizen-soldiers in smiting the detestable Hun was the subject of every morning's news headline and front page, sharing space only with coverage of the treachery of the former ally Russia, now in the clutches of Bolshevik tyranny.

The Wilmington Morning Star, the primary newspaper of Wilmington, North Carolina was typical of this international focus. On September 14th, however, the Morning Star carried an unusual article at the bottom of page 1 entitled, "Spanish Influenza in this Country".<sup>1</sup> This would have come as no shock to a well-informed person. A world-wide epidemic or "pandemic" of influenza, believed by some to have originated in Spain, had swept the globe during the previous Spring. But mortality was low, confining itself chiefly to the aged, those already ill, and to infants and was typical of the flu. The article, however, contained a statement by the United States Surgeon General Rupert Blue that this flu was "not infrequently terminal" and that there was "no such thing as an effective quarantine."<sup>2</sup> Only six days later on the 20th, the Morning Star reported "Influenza Reaches City", announcing the onset of thirty cases in thirty-six hours.<sup>3</sup> The following day, a formerly healthy and popular young man, twenty-eight year old William A. Wright, died of influenza. One can only attempt to imagine the mixture of grief and astonishment inflicted on his family by his untimely death from the flu.

The suffering during the Wilmington epidemic which was shortly to follow was a microcosm of the worldwide pandemic. During 1918, '19, and '20, influenza would infect 700 million people of whom an unprece-

ented 20 million would be left dead.<sup>4</sup> The American Journal of Public Health describes it as "the greatest disease holocaust of modern history."<sup>5</sup> One must look to the days of the bubonic plague and find a time when greater proportions of the population of the known world were annihilated. In the United States, over 500,000 citizens died from the pandemic compared with 53,402 battle deaths of U.S. armed forces personnel during the First World War.<sup>7</sup>

Despite the immensity of loss and suffering endured, the 1918 pandemic have received little attention from historians, who apparently relegate it to a position of insignificant detail compared to the international events and domestic political scene of the same era. Nor have modern social historians given the pandemic, other diseases, or public health much attention, preferring instead to concentrate the study of the ordinary on matters relating to demography, economics, and technology.

From the contrast between this near apathy and the fascination engendered by the Bubonic Plague of the fourteenth century, one may surmise that rat infested castles and the squalor of medieval slums illicit a certain morbid curiosity, whereas the 1918 pandemic was merely "the flu". Dr. Alex J. McLaughlin alluded to this surprising indifference in a December, 1918 address to the American Public Health Association: "An epidemic of yellow fever that cost one thousand lives, spread over the territory that this has been spread over, would throw the whole country into a panic. This country, with a placidity that is admirable, stood quietly by and sustained a loss of over 300,000 lives, and outside of this hall you hear very little about it."<sup>8</sup>

But within the hall of medical science, influenza has

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This issue of the BULLETIN is dedicated to the memory of

**Mr. and Mrs. Richard Wetherill**

BACK TO THE *BULLETIN*

Acting on the advice of academic and local historians, library subscribers, and the membership, the publications committee has voted to return to the familiar format of the *Bulletin* of old.

The *Bulletin*, which will contain scholarly articles relating to the history of the Lower Cape Fear, will be issued three times annually. Susan Block will serve as editor and head the editorial committee composed of Beverly Tetterton, Tom Broadfoot, Diane C. Cashman, Merle J. Chamberlain, and Jean S. Scott. Manuscripts may be submitted to the Society for review.

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received warranted attention, epidemics as early as the 11th century having been documented.<sup>9</sup> There was little understanding of the malady, however, until 1933 when the influenza virus was isolated and identified. In 1941, Dr. Horsfall and his colleagues reported the first evidence of immunization through vaccine.<sup>10</sup>

The 1918-19 pandemic was not accompanied by this latter-day understanding or the combative methods, which it allowed. Immunization through vaccination and the invention of sulfa drugs and penicillin were yet to come.<sup>11</sup> Medical efforts were further hampered by the absence of a "great majority of the medical and nursing personnel",<sup>12</sup> who were serving with the armed forces. Moreover, the national scope of the epidemic diminished the possibility of concentrating available medical personnel in isolated afflicted areas.

The pandemic came in three phases. The first, as noted, in early 1918, was relatively mild and afflicted the United States from May to October of that year.<sup>13</sup> It overlapped with the second phase, by far the deadliest, which first appeared on the east coast of the United States in September and passed quickly across the nation in wave-like manner, leaving a trail of dead and dying. The third phase is reported by the American Journal of Public Health to have been "in the winter of 1919, during the usual respiratory season,"<sup>14</sup> and of shorter duration and lesser mortality than the second. A secondary source, Great Disasters, reports that "a third wave of the epidemic killed 100,000 Americans"<sup>15</sup> and lasted into 1920. It was anticipated, however, during the recovery stages of the second phase that deaths would continue from its effects through the winter of 1919.

The second phase of the national epidemic first appeared in Boston and spread quickly to the south and west. Wilmington, North Carolina, when the epidemic arrived, was no sleepy provincial town waiting to be jolted by the onset of world events. The city was well-attuned to the national war effort by the presence of large shipyards, by liberty bond drives, by its location as a point of departure for men and materiel, and by the pace of the news media. But, like the rest of the nation and the world, Wilmington was ill-prepared for the catastrophic events of September-October of 1918.

Extrapolation from a theoretically steady rate of Wilmington population increase from the 1910 census figure of 25,748<sup>16</sup> to the 1920 figure of 33,372<sup>17</sup> indicates a 1918 population of 31,847, not including those temporarily in the city and its shipyards. The 1918 Wilmington City Directory lists 19 drug stores,<sup>18</sup> 43

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nurses<sup>19</sup> and 29 physicians<sup>20</sup> whose combined responsibility it was to preserve the health of the local population. (The Directory does not specify how many of these locally registered medical personnel were away in the military service.) The two general hospitals in the city were James Walker Memorial and Charles T. Harper's sanatorium.<sup>21</sup>

This minimal availability of resources and personnel was little aided by the hygienic knowledge and attitude of the citizenry. Dr. Charles T. Nesbitt, assuming the office of Wilmington Superintendent of Health in 1911, was "appalled at the great number of open privies, unscreened houses, open garbage pits, shallow wells, poor sewage system, and poor drainage."<sup>22</sup> In response to his campaign for improvement he was "vilified by oratory and had to endure the humiliation of having his lawn littered with garbage and chamber pot contents."<sup>23</sup>

The early deaths due to the epidemic awakened the citizenry to their imminent danger. In the September 23rd edition, which carried Mr. Wright's obituary, the Morning Star stated, "every man who sneezed wondered if he might be catching Spanish influenza, which is feared worse than the draft."<sup>24</sup> The number of cases could only be estimated, as influenza was not listed among those diseases reportable to the authorities by previous ruling of the State Board of Health. New Hanover County Health Officer, Dr. Charles Low estimated the September 22 case total at 200<sup>25</sup> and a day later at 500.<sup>26</sup> The newspaper began listing hygienic precautions including the muffling of coughs and sneezes, the burning of secretions, the washing of hands and eating utensils, and the avoidance of meetings, and the bearing of bags of "asafetida", a substance supposed to ward off germs.

As the number of local cases multiplied, the routine of the city's daily life and the infrastructure of its health care service quickly began to break down. On September 24th the paper reported "the industrial and commercial life of the city is being handicapped by the prevalence of the disease."<sup>27</sup> The opening of the public schools projected for the 30th was under debate and parents were claiming that if it were not postponed, they would keep their children home.<sup>28</sup>

On the 23rd, the September 30th opening of the schools was postponed for one week. The County Board of Health, chaired by Dr. W. A. McGirt, was considering closing the theatres and churches in order to prevent mass meetings, but due to sickness and absence from the city could not obtain a quorum on the 24th to vote on the measure. On September 27th, the Board of Health voted

to close all theatres, soda fountains, pool rooms, and churches. The following day the Morning Star reported only about a half-dozen doctors still on the job, so stricken was their number by the contagion. On Saturday the 28th, Dr. McGirt made an appeal for all businesses (except pharmacies and groceries), and all houses to close at 6:00 p.m. The voluntary curfew went into effect the following day. That Sunday, September 30, 1918, "unique in the history of Wilmington"<sup>29</sup> saw the first suspension of church gatherings and marked the beginning of the virtual paralysis of the city. Churches, schools, soda fountains and pool halls were closed for the next 2 1/2 weeks. Businesses and informal visits were curfewed. All efforts were united toward the avoidance and combat of the epidemic. Only the shipyards and railroad attempted business as usual in a struggle to maintain the war effort.

The first two weeks of October were the height of the influenza epidemic in Wilmington. These were dark days for the community. Fear and sorrow were ascendant. The pestilence had already claimed 21 lives in September. The daily toll of death continued to climb from five on the 2nd of October to a high of fifteen on the 5th.<sup>31</sup> Local undertakers ran out of coffins and had to bury the dead in pine boxes.<sup>32</sup> By October 4th, health officials estimated 8 to 10,000 cases in the county. Every healthy person knew he, too, could become a victim. Every victim knew he was a potential fatality. Wilmington historian Dr. Robert Fales, then eleven years old, recalls "People were frightened!... You didn't go out on the street."<sup>33</sup> Mrs. Josephine Flannegan, then 23 remembers too, "My mother Wouldn't let us go out,... We couldn't go to any of our friends' houses."

The onset of sickness reduced people within an hour from apparent perfect health to symptoms of "weakness, aching, coughs, chills, and fever."<sup>35</sup> Family members would keep a vigil late into the night with stricken loved ones as they awaited what was called "the Crisis."<sup>36</sup> If a person passed the crisis, he was likely to recover completely. But many succumbed. When death came, it was due to pneumonia or actual hemorrhage of the lungs."

Medication was of little benefit. Quinine was used in the hope of combating what was mistakenly believed to be a bacteria. Whiskey was used as an oral disinfectant and stimulant, and codeine was administered to provide a measure of comfort to the seriously ill. Mustard plasters were prepared in an effort to prevent pneumonia, and victims were prescribed three weeks of rest in bed.<sup>38</sup> But, those afflicted continued to die. "One either had the vitality and stamina to survive, or he didn't."<sup>39</sup>

## SHORT STORY COMPETITION – REDUX

Last year's first annual short story competition was such a success that it will be returning for its second year – so get out your quill, pencil, typewriter, or trusty computer and start writing an original story that captures the history, culture, and character of the Lower Cape Fear. Specific submission guidelines will be coming out soon.

At last year's award ceremony William Zinkus, first prize winner, treated a spellbound audience to his dramatic reading of "Masonboro Landing," a story that told of an encounter between a young Wilmington couple and a German submariner on Masonboro Island during World War II.

It is hoped that a portion of the "Grand Tour" proceeds can be used to publish some of the prize winning stories.

- Blonnie Wyche – Co-Chair

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The citizens and authorities of Wilmington wasted little time in responding to the emergency. On Friday, September 27th, Wilmington Mayor, Parker Quince Moore, appointed a committee to coordinate the efforts of volunteers and assist medical professionals in the community effort. The "Mayor's Committee" developed a plan whereby the National Special Aid Society would locate sufferers, especially those too weak or isolated to make their plight known; nurses and trainees would carry medicine to them; and pharmacists would work overtime mixing it. In accordance with this design, "block messengers"<sup>40</sup> or "Mercy Teams" consisting of two men and one woman fortified by face masks, asafetida, quinine, and whiskey<sup>41</sup> were dispatched to suspi-

ciously quiet homes. But, "The chief need seems to be for nurses," wrote Mrs. Janet Weill. Nurses and trainees did what they could given their limited number and pre-eminent responsibility in the hospitals. Their efforts were valiantly assisted by the soup kitchen of the Housewives League, which distributed many hundreds of gallons of broth. Pharmacists worked late mixing medicines. Long lines formed at drug stores, in one case a block long.<sup>43</sup>

The few doctors well enough to continue worked to the limits of their endurance in the cramped facilities available. On September 24, the Marine Hospital opened under the authority of Dr. John C. Wessell, relieving James Walker Memorial of its military patients. County School Superintendent J. J. Blair offered the vacant school buildings as treatment centers. Tileston and Williston High Schools, Union School, and others quickly filled with patients. The Carolina Shipbuilding Corporation opened a hospital at Fourth and Grace Streets to care for its personnel, Dr. E. R. Hart in charge. Local churches were also used as hospitals.<sup>44</sup> James Walker Memorial Hospital opened an emergency ward in its basement, staffed by Red Cross nurses.<sup>45</sup>

Though the city was working at maximum capacity to combat the epidemic its effort was insufficient to stem the tide of new cases and rising mortality. Hospitals, schools, and other makeshift care units were filled to capacity, and medical personnel hadn't the time to properly care for those dying in their homes. So stricken was Wilmington that Lumberton, Charlotte, and Fayetteville, North Carolina passed ordinances of quarantine against the city. Hence, on September 29, Dr. McGirt and the Board of Health formally appealed to U.S. Surgeon General Blue for federal assistance in the medical battle. Liberty Shipbuilding Company General Manager, Louis R. Ferguson with an average of 200 men out of work each day likewise wired his home office in Boston for help. Washington reacted swiftly by dispatching Dr. Charles W. Stiles of the United States Public Health Service to Wilmington with orders to take charge of the situation. Meanwhile doctors began arriving from less stricken communities around the state and from the navy. Dr. W. S. Rankin, Secretary of the State Board of Health, sent eight doctors, and the Red Cross promised an adequate number of nurses.

With Dr. Stiles' arrival and the subsequent coordination of federal, state and local efforts, the struggle entered into a phase in which centralized management was paramount, and the medical establishment asserted extreme authority, as is sometimes required in emergen-

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cies. On October 1st, the County Board of Health assumed the authority to send health officers into homes to take the sick to hospital centers with or without their consent. On the 3rd, Dr. Stiles announced that any incoming nurse who offered private service would be arrested and expelled from the Red Cross. On the 6th, federal authorities placed Dr. Stiles in charge of the whole state. He maintained his headquarters in Wilmington, which thereby became the nerve center of the statewide effort.

The County Health Board's decision to remove sufferers from their homes was not altogether well-received. Much of the populace was aware that victims were dying in the hospitals and emergency centers and that no cure was available. Not surprisingly, many preferred to care for their loved ones at home. Mrs. Vivian Fowler Carter, then eighteen, recalls of her father's illness, "My mother wouldn't let him go to the hospital; she waited on him herself... They came to the door... They had the stretchers to take him, but my sister wouldn't let them in." Mrs. Fowler interceded between the stretcher bearers and her unyielding twelve year old Roweena with assurances that she could adequately care for her stricken husband, so that reasonable minds prevailed, and he was allowed to recuperate at home. Further evidence of resistance to this ordinance is indicated by the fact that nine of Wilmington's fatalities in the autumn of 1918 were unattended by physicians.<sup>47</sup> This failure to report infection to medical personnel may have resulted from fear the loved ones would be forcibly removed from their homes.

The panic of those days and the curtailment of business activity gave rise to considerable gossip and rumor. Lt. Col. P. S. Doane of the Shipping Board reportedly stated that the contagion was transmitted to the U. S. by the landing of infected agents from German submarines.<sup>48</sup> On September 27, the Morning Star had to believe a rumor that the city was under quarantine. On October 3rd, the Morning Star reported that whiskey was "the only stimulant that has been found effective in the treatment of these diseases."<sup>49</sup> The Mayor's Committee called for whiskey donations and various communities clamored for state assistance in its procurement, until the state Board of Health responded with a quote from a resolution by the American Medical Association that the use of alcohol "in therapeutics as a tonic or a stimulant or as food has no scientific basis."<sup>50</sup> Another tale of early October was that influenza germs were in aspirin shipments. A particular macabre story laid to rest by the Morning Star on October 11, was that

the Health Department was withholding information, particularly the numbers of the dead, and that forty from one hospital had been wrapped in sheets, put on a truck and "buried in the same hole."<sup>51</sup>

Irregardless of irrational fears on the one hand and the community's mighty exertions on the other, the epidemic ran its course like a passing cloud or a Biblical plague, unheeding of the lamentations of man. Premature optimistic reports had been published in the Morning Star as early as September 29. On October 1, prior to the peak of Wilmington's struggle, the paper naively reported, "it appear that the epidemic is on the wane."<sup>52</sup> On the 4th, Dr. Stiles called the situation "improving"<sup>53</sup>, and on the 8th, he stated conditions had definitely improved and that he was considering releasing two physicians for work elsewhere. As the number of the new cases continued to decrease, he stated on October 10th, "unless all appearances are deceiving, we have passed the crest of the epidemic."<sup>54</sup> On the 13th Dr. Stiles decided to transfer his state headquarters to Raleigh, and the ever cheerful Morning Star reported the epidemic "practically a thing of the past."<sup>55</sup> The same edition gave the total local death toll as of the previous evening at 106. On October 18th, Dr. Stiles allowed "business as usual" in Wilmington, lifting the 6:00 p. m. curfew and the ban on church services. The public schools were scheduled to open for the season on Monday, October 21st.

As the tide of suffering and death receded, the community felt the strength and the obligation to aid other North Carolina cities, then in the peak of their anguish. George H. Hutaff of the Mayor's Committee left with advice for Clinton, and Rev. Frank B. Dean, also of the committee, and Mary Clifford Bennett left for Fayetteville and points beyond in a motor car nicknamed the "Flu Special" flying a banner which read "Wilmington Relief".<sup>56</sup> On the 21st, the Mayor's Relief Committee was disbanded leaving the Red Cross to wind up details.

Thereafter, the focus of public attention shifted to the opening of the public schools. The opening day was moved back from Monday the 21st to Friday the 25th for a short day of organization to be followed on Monday the 28th by a regular schedule. But, Doctors McGirt and Wessell of the County Board of Health led opposition to the decision to reopen the city and especially the schools. A petition signed by local physicians and prominent citizens was presented to the Board in the hope of delaying the public school opening. They cited that only 25% of the community had been infected and

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thereby immunized by the flu, that hundreds of children were convalescent and that to reopen the schools would be hazardous to their safety. Nevertheless, County Health Officer, Dr. Charles Low and his faction prevailed so that the opening day stood as scheduled.

The schools' reopening was accompanied by notice that no child from a home where influenza remained would be allowed to attend and that any child showing symptoms would be sent home. Dr. Low addressed teachers on precautionary procedures and the following day, October 25th, the grammar schools opened, the high school opening being delayed until November 1st for fumigation and desanitizing. Opening attendance was as low as 50% in some grammar schools,<sup>57</sup> and the high school opened with 353 of 400 enrolled students.<sup>58</sup> Hemenway and Union elementary schools opened with about 500 each of 606 and 633 enrollees respectively.<sup>59</sup> The *Morning Star* reported that the subsequent sharp increase in attendance "is taken to mean that instead of the number of cases increasing, as many feared would be the case, it has continually grown smaller while many of those who had been afflicted have sufficiently recovered to enter school."<sup>60</sup> But one wonders to what extent fear was the motivating factor behind the early reluctance to reenter the school population. Mrs. Flannegan, then a teacher at St. Mary's, recalls, "There was a lot of them that was scared of it."<sup>61</sup>

With the reopening of the schools, the public life of the city returned to its normal pace. But privately, hundreds still suffered. Deaths of those who had never fully recovered continued at a much reduced pace through the autumn and increased during the cold winter as Dr. Stiles had predicted would be the case.<sup>62</sup>

The New Hanover County Register of Deeds lists 233 deaths attributable to influenza between September 21, 1918 and April 6, 1919. Of this total, 182 perished in 1918, 119 of these in the first two weeks of October. Of the 233, 121 were male vs. 112 female. A surprising 130

were in the prime of life between the ages of twenty and forty, inclusive, and 25 were less than two years of age. The severity of the death rate is further noted by Dr. Low's monthly report to the state board of Health in which he placed the total of deaths in October at 186 from influenza as compared to 25 deaths in the county from other causes.<sup>63</sup>

In practically every respect Wilmington's experience had proven a microcosm of the national and worldwide experience and was typical of community crises in general. The onset and passing of the epidemic were sudden and unexpected as was common in other cities of the nation. The strange concentration of fatalities among the very young and those in their prime was also typical of this particular strain of influenza.<sup>64</sup> The spread of panic and rumor and the breakdown of the routine of daily life, of business, and of normal civil government were characteristic of severe crises as was the imposition of unusual centralized authority and small rebellions against it by the free-spirited.

Few Americans today can comprehend the grief and sense of loss accompanying the sudden death of a person in the prime of life or of a small child. Yet, many Wilmington families suffered even multiple fatalities. In spite of its agony, the community gave a good account of itself. The united and voluntary nature of its labors is praiseworthy as is its assistance to other communities. Its great trial gave birth to a host of heroes and heroines. Family members risked their lives in the service of loved ones. Philanthropists gave generously to the work of relief. Soup carriers abandoned homes and businesses. Physicians, nurses, and trainees worked to the limits of their endurance. Deserving of the highest honor are Doctors Arnold Stovall and B.J. Willington, who sacrificed their lives in the rendering of their profession to the people of Wilmington.

#### Appendix: Influenza Fatalities in Wilmington

<u>Date</u>	<u>Name</u>	<u>Sex</u>	<u>Race</u>	<u>Age</u>	<u>Occupation</u>
Sept. 21, 1918	William A. Wright	M	W	28	Merchant
Sept 23	Robert L. Moore	M	W	27	RR employee
Sept. 24	Frank Moore	M	B	9	
Sept. 27	Sibby A. Kelly	F	W	37	Red Cross Nurse
Sept. 28	Arnold Stovall, M.D.	M	W	39	Physician
Sept. 29	Hunter Simpson	M	B	37±	Fireman
Sept. 30	Elliot Fletcher	M	B	44±	Preaching
Oct. 1	Mrs. Albert J. Beach	F	W	27	Housewife
Oct. 2	Robert Blizzard	M	W	21	Blacksmith
Oct 3	Thomas J. Dobson	M	W	39	RR Yardmaster

Appendix: Influenza Fatalities in Wilmington *continued*

<u>Date</u>	<u>Name</u>	<u>Sex</u>	<u>Race</u>	<u>Age</u>	<u>Occupation</u>
Oct. 6	Ethel Judge	F	B	25	Washing
Oct. 7	Rudolph H. Geishen	M	W	30	Book keeper
Oct. 8	John W. Harper	M	W	21	Electrician
Oct. 9	Henrietta Elene Geischen	F	W	29	Housewife
Oct. 10	Pearl Gibson	F	B	23±	Cook
Oct. 13	Edward White Stokely	M	W	35	Salesman
Oct. 17	J.L. Carroll	M	W	21	Truck Driver
Nov. 8	William Capers Munds	M	W	65	Druggist
Dec. 23	John S. Poovey	M	W	34	Car Painter
Feb. 4	T.C. Anderson	M	W	31	Farmer

**FOOTNOTES**

The greatest part of the information of the Wilmington epidemic is derived from the Wilmington Morning Star newspaper editions from September through December of 1918, which are on microfilm film in the New Hanover County Public Library. Specific references and all other sources are noted below.

<sup>1</sup>Wilmington Morning Star, September 14, 1918, p.1. (hereafter cited as "Morning Star".)

<sup>2</sup>Ibid.

<sup>3</sup>Wilmington Morning Star, September 20, 1918, p.5.

<sup>4</sup>Fred B. Rogers, M.D., "The Influenza Pandemic of 1918-1919 in the Perspective of a Half Century," American Journal of Public Health 58, (December, 1968): 2193. (hereafter cited as "Rogers: 'Pandemic'".)

<sup>5</sup>Ibid., 2192

<sup>6</sup>Richard E. Cytowic, "Stalking the Wild Influenza," North Carolina Medical Journal 38 (February, 1977): 85. (hereafter cited as "Cytowic: 'Stalking...'")

<sup>7</sup>Andrew Hacker, ed., A Statistical Portrait of the American People, (New York: The Viking Press, Penguin Books, 1983), 208.

<sup>8</sup>Alan J. McLaughlin, "The Organization of Federal, State, and Local Health Forces," The American Journal of Public Health 9 (January, 1919): 38. (hereafter cited as 'McLaughlin: 'Organization...'")

<sup>9</sup>Cytowic: "Stalking...", 86.

<sup>10</sup>Rogers: "Pandemic...", 2194.

<sup>11</sup>Robert Martin Fales, M.D., Diane C. Cashman, ed., Wilmington Yesteryear, (Sponsored by Lower Cape Fear Historical Society, 1984), 83. (hereafter cited as: "Fales: 'Wilmington...'")

<sup>12</sup>McLaughlin: "Organization...", 38.

<sup>13</sup>Rogers: "Pandemic...", 2192.

<sup>14</sup>Ibid., 2193.

<sup>15</sup>Kaari Ward, ed., Great Disasters, (The Reader's Digest Association, Inc., 1989), 191.

<sup>16</sup>Andrew J. Howell, The Book of Wilmington, (Wilmington, N.C.: Wilmington Printing Co., 1930), 204.

<sup>17</sup>Ibid., 210.

<sup>18</sup>The Wilmington City Directory XII, (Wilmington, N.C. and Richmond, Va.: Mill Directory Co., Inc., 1918), 44-45 .

<sup>19</sup>Ibid., 70.

<sup>20</sup>Ibid., 72-73.

<sup>21</sup>Diane Cashman, The Lonely Road: A History of the Physicks and Physicians of the Lower Cape Fear 1735 - 1976, (Wilmington, N.C.: Research and Romance of Medicine Committee of the Auxiliary of the Medical Society of New Hanover, Brunswick. and Pender

Counties, N.C.), 49.

<sup>22</sup>Ibid., 49.

<sup>23</sup>Ibid.

<sup>24</sup>Morning Star, September 23, 1918, p. 5.

<sup>25</sup>Ibid.

<sup>26</sup>Morning Star, September 24, 1918, p. 5.

<sup>27</sup>Ibid.

<sup>28</sup>Ibid.

<sup>29</sup>Morning Star, September 29, p. 6.

<sup>30</sup>Death Certificates, 1918-1919, New Hanover County Register of Deeds Office, Wilmington, N.C. (hereafter cited as "Register of Deeds")

<sup>31</sup>Ibid.

<sup>32</sup>Fales: "Wilmington...", 83.

<sup>33</sup>Dr. Robert Martin Fales, interview by author, Wilmington, N.C., October, 1989. (hereafter cited as "Fales interview")

<sup>34</sup>Mrs. Josephine Flannegan, interview by author, Tape recording, Scotts Hill, NC., November 17, 1989, (hereafter cited as "Flannegan interview").

<sup>35</sup>Robert Martin Fales, M.D., "Influenza 1918", (Wilmington: unpublished, 1988) p. 1. (hereafter cited as: "Fales: 'Influenza...'").

<sup>36</sup>Fales interview.

<sup>37</sup>Fales: "Influenza...", 1.

<sup>38</sup>Ibid.

<sup>39</sup>Fales: "Wilmington...", 83.

<sup>40</sup>Morning Star, September 28, 1918, p. 5.

<sup>41</sup>Fales: "Wilmington...", 83.

<sup>42</sup>Janet Weill to Gertrude Weill, 1918, Gertrude Weill Papers, State of North Carolina Department of Cultural Resources, Division of Archives and History, Raleigh, NC (hereafter cited as "Weill papers").

<sup>43</sup>Fales: "Influenza...", p.1.

<sup>44</sup>Ibid., 2.

<sup>45</sup>Weill papers.

<sup>46</sup>Mrs. Vivian Carter, interview by author, Tape recording, Scotts Hill, NC., November 17, 1989.

<sup>47</sup>Register of Deeds

<sup>48</sup>Morning Star, September 21, 1918, p. 5.

<sup>49</sup>Morning Star, October 3, 1918, p. 5.

<sup>50</sup>Morning Star, October 20, 1918, p. 7.

<sup>51</sup>Morning Star, October 11, 1918, p. 5.

<sup>52</sup>Morning Star, October 1, 1918, p. 5.

<sup>53</sup>Morning Star, October 5, 1918, p. 5.

<sup>54</sup>Morning Star, October 10, 1918, p. 5.

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