

NJS Presents**A Special Feature*****New Jersey and the Great War: Part I*****By Dr. Richard J. Connors****DOI: <http://dx.doi.org/10.14713/njs.v3i2.83>**

As April 2017 marked the 100th anniversary of America's entry into World War I, this edition of NJS has several related offerings. These include this special feature, an adapted version of the first half of Dr. Richard J. Connors' new book, New Jersey and the Great War (Dorrance, 2017). We will publish the second half in our Winter 2018 issue. Those who can't wait, or who want to see the unedited text (to include endnotes, illustrations, and tables) can always purchase the book [online](#)! We are most grateful to Dr. Connors for allowing us to share his insightful and comprehensive work in this way, and hope you will help us ensure the widest possible dissemination by sharing the very timely piece with your colleagues, students, family, and friends.

Preface

When my generation were youngsters, "the war" was the Great War, now known as World War I. On Memorial Day we bought artificial flowers in remembrance of the veterans lying in European cemeteries "where poppies grow between the crosses, row on row." On Armistice Day, November 11, we went to our local cemeteries to honor departed neighbors, especially those whose bodies were re-interred from France. At the movies, rarely air-conditioned, for a ten cent admission we watched Lew Ayres in *All Quiet on the Western Front*, or Errol Flynn in *Dawn Patrol*, plus the latest Buck Rogers serial. Our bookshelves were lined with pulp fiction recounting the exploits of soldiers in the Fighting 69th and other heroic units. In Woolworth's 5 & 10 we bought lead soldiers, dug trenches in our back yards, and sent our toys "over the top." We collected trading

cards with war scenes and soldier heroes. In 1939 it all came to an end. Reality replaced remembrance: World War II was upon us.

New Jersey was an important participant in the Great War, and not just between 1917 and 1919. Our location, our commerce, our industry: all gave our State significance from 1914 to 1917 as well. As we move through these Centennial years, the modest aim of the book serialized here is to acquaint the reader with the story of our Great State in the Great War. Many of our forebears served then; many died then. The author wants to pay tribute to them. Finally, he wants to give special thanks to the men and women who wrote the history of their town, their county, their military and naval unit, in the months and years immediately following the war. Without their dedication and effort this book could not have been written.

Chapter 1: The New Jersey Setting

Sunday, June 28, 1914. Some showers today in New Jersey, a warm day in the low 70's. Yesterday the Hamburg-American's palatial liner *Imperator* left Hoboken with scores of excited vacationers off to Europe. For the stay-at-homes, *New York Times* ads boasted about Atlantic City, whose Marlborough-Blenheim Hotel had 400 private bathrooms. Asbury Park bragged about a tango contest in its Casino and shotgun trapshooting on the boardwalk. The Sunday Times also gave its readers a guided tour of Elizabeth, a city with a history running back "250 years."

In Jersey City, Irish-American Frank Hague was beginning his second year as Commissioner of Public Safety, in charge of the police and fire departments. Three years later his fellow commissioners would select him Mayor, a post Boss Hague would hold for the succeeding thirty years. Newark's Mayor was the German-American Jacob Haussling. His administration would soon begin enlarging the Newark Bay area into a deepwater Port Newark. In Atlantic City, Enoch "Nucky" Johnson was in his second year as county treasurer, a post he would retain for

thirty years. He was already consolidating his tight control over that resort town. Atlantic City, well known for its weekend railway excursions for residents of Philadelphia and New York, was lively and prosperous. Paterson in contrast was in a somber, perhaps even a sullen mood. During the preceding year thousands of workers in the Silk City's textile mills had gone on strike over wages and working conditions. Support by the International Workers of the World, a radical labor movement known as the Wobblies, gained the strike national attention. But the intransigence of the mill owners and the opposition of Mayor Dr. Andrew McBride, backed by police and the State Militia, brought about the strike's collapse in July, 1913. Bitterness still reigned a year later. Trenton, the state capital, was politically in sleep mode. The Legislature was not in session and Governor James Fielder, a Hudson County Democrat who succeeded Woodrow Wilson in 1913, was elsewhere.

Events in Europe on June 28 were to bring about major changes to the New Jersey landscape and to its history. Archduke Franz Ferdinand, heir-apparent to the throne of Austria-Hungary, and his wife Sophie were murdered in Sarajevo by a young Bosnian Serb. The government of Emperor Franz Josef I proclaimed that Serbia had created an atmosphere of hostility towards the Hapsburgs, the empire's ruling family, and demanded satisfaction. When this was not forthcoming, on July 28 Austria-Hungary declared war on its neighbor. Europe's system of entangling alliances then quickly unraveled. Within two weeks Russia, Germany, France, Great Britain, and Belgium had joined the fray. The Great War was on.

What was New Jersey like when the Great War started? Who were its people? Where did they live? How did they earn a living? What was their social life like? What sort of government did they have? The 1910 federal census listed New Jersey's population at 2,537,167 -- an increase of over a million in a generation. The 1890 census had counted 1.4 million; the 1914 estimate was

2.8 million. From the vantage point of residence, New Jersey had become a State of cities. Over 60% of her people resided in thirty-two cities of 10,000 or more, with most of these located along the corridor running from Philadelphia to New York City. The population of her twenty-one counties ranged from 537,281 in Hudson and 512,886 in Essex down to 21,318 in Ocean and 19,745 in Cape May. Urban growth was spurred by natural increase, by movement from farm to city, and especially by immigration. Suburbanization was also starting to take hold, first in apartment complexes close to work, e.g., the Heights of Jersey City, then out along trolley and rail lines to towns like the Oranges in Essex County. The American dream of homeownership – the cottage small by a waterfall – idealized in glossy magazines, was making its mark. One study of demographic trends summarized thus: “Three great population shifts, all interrelated, changed the character of urban New Jersey between 1890 and 1910. First was the emergence of an expanding middle class of technicians, managers, and other white collar workers; second was the rise of the commuter and the spread of the suburb ...; and third was the ethnic shift as the older immigrants from northern Europe were outnumbered by the Italians, Poles, Slovaks, and Negroes.”

The proverbial melting pot had not melted much by 1914. The Germans and Irish who stayed in the cities still stayed in the old neighborhoods and patronized clannish social institutions. Irish pubs, Catholic churches, parish schools, political and sports clubs were matched by German beer gardens, Lutheran churches, schools where the German language was taught, sports and social vereins. Foreign language newspapers were popular. Newark’s *Freie Zeitung* celebrated its 50th anniversary in 1908. The newer immigrants adapted to this life style. Italians, Poles, Russian Jews, Slovaks, et al, created their own urban spaces and distinctive institutions. Churches were typically headed by native-speaking clergy; neighborhood markets catered to the culinary tastes of the old country. Ethnic prejudice was common. The Germans and Irish looked down their noses at the

newcomers and made little effort to integrate them into the larger society. Recent immigrants were shut out of political life, except for a few leaders who were expected to deliver votes in return for jobs and contracts. Religious prejudice was still common: anti-Catholic and anti-Jewish outbursts were frequent. Elite businesses had a WASPish flavor, especially in the financial fields. Some ethnic groups countered by creating their own savings-and-loan associations to finance business ventures and home ownership.

Spatial separation and attitudinal prejudice had a racial as well as an ethnic dimension. Pockets of African-Americans existed in both urban and rural areas, but except in Atlantic City were comparatively small in numbers. Atlantic City was a boom town at the time, her population soaring from 13,055 in 1890 to 46,150 in 1910. About 10,000 of the latter were African-Americans who dominated the local labor market. They worked in the city's hotels, restaurants, boardwalk concessions, and boarding houses. Their social life focused on local Baptist and Methodist churches.

Tradition, climate, soil - these combined to maintain the state's reputation as a Garden State. Diversity was the hallmark of the rural economy, with changes in growing conditions influencing the product mix as one went from south to north. Fruits were everywhere - cranberries (one-third of the nation's output), blueberries, grapes, peaches, apples, et al. Bergen County was described as being one big strawberry patch. Vegetables included asparagus, green beans, potatoes, and tomatoes. Grains and forage crops were counted in acres of wheat, rye, hay, alfalfa, and of course the famous Jersey corn. Animal husbandry focused on poultry, hogs, horses, and cattle. New Jersey's railroads and developing road system, added to her proximity to the huge markets of Philadelphia and New York City, also helped shape the nature of her agriculture. Jersey Fresh was the by-word - and the reality. The state could send meat, produce, and flowers quickly to the

consumer. Eggs provide just one example: the State sold fifteen million dozen each year. As the New Jersey Department of Agriculture boasted: “The reason for the very apparent prosperity among farmers, and the opportunities in North and South Jersey, are understood when one realizes that the combination of cheap lands, fertile soil, excellent transportation and the best markets in the world ... are met within few, if any other localities in the United States.”

With miles of coastline, New Jersey was well situated for a profitable fishing industry. Pound nets along the shore yielded salt-water fish with a wholesale value of approximately \$750,000 per year; shad about \$300,000. Shell-fish were even more profitable, to an estimated four million dollars each year, in a business employing some 10,000 workers. Clam diggers - a phrase still applied to shore residents - were to be found from Raritan Bay down the east coast to Delaware Bay. Processing was done along the Maurice River in Cumberland County, especially in the aptly named hamlets of Bivalve and Shellpile.

The iron mining industry, a New Jersey staple since Revolutionary War times, was petering out, no longer able to compete effectively with the Mid-West and Far-West. Still, in that industry New Jersey ranked 9th nationally in 1910. In zinc she ranked 2nd. Profitable mining in stone, sand, and gravel reflected the requirements of urban construction as well as road building in the developing automobile age. High quality clay soils in Central Jersey encouraged brickmaking and the pottery industry. Shipbuilding took place in such cities as Camden, Bayonne, and Elizabeth. New York Shipbuilding - despite its name a Camden enterprise - began production in 1900 and would become the nation's largest shipbuilder. At the turn of the century the Crescent Shipyard in Elizabeth made the first successful American submarines. In peacetime, however, shipbuilding was overshadowed by shipping, where the Hudson County waterfront dominated the scene. Pennsylvania coal piled up in Jersey City for trans-shipment; Bayonne refineries turned out

kerosene, fuel oil, and gasoline for the world; Germany's two largest shipping firms, Hamburg-American and North German Lloyd, had pier complexes in Hoboken for their fleets of modern ocean liners.

Realtors talk about the advantages of location, location, location. In 1814, New Jersey's location was not considered an asset. The state was characterized as just a way station between New York and Philadelphia. The transportation, agricultural, and industrial revolutions of the 19th century changed that perspective. Being near Philadelphia, and especially New York, became positives. The major spur to New Jersey's economic development was the behemoth across the Hudson. Long the country's largest and most important commercial and financial center, New York (Manhattan) became a super-city in 1898 by consolidating with its neighbors: Brooklyn, Bronx, Queens, and Staten Island. New York's population in 1900 was 3.4 million, in 1910, 4.8 million. The city's voracious appetite for food, coal, kerosene, building material, clothing, iron and steel, etc. provided great economic opportunities for New Jersey. In particular, the growth of a national railroad system was a boon to the state's northeastern shore. Hudson County became the terminus for both major and minor rail lines. The Pennsylvania, Reading, Lehigh, Erie, Delaware and Lackawanna, and Jersey Central railroads ended at a stretch of waterfront running from Weehawken to Bayonne, with the key being Jersey City. This waterfront and its immediate hinterland became a crowded conglomeration of piers, ferry slips, rail yards and stations, warehouses, stockyards, slaughterhouses, coal yards, milk depots, shipyards, refineries, and factories. It became an integral part of what was to be known as the Port of New York. Traffic was two-way, for New England and New York shipped west through New Jersey also. In similar fashion, the Camden area became integrated into the Port of Philadelphia. Through these two metropolitan complexes, New Jersey was tied into global finance and commerce. Important for the

future: the principal railroads made major structural improvements to their port facilities in the late 19th, early 20th centuries. Location was thus complemented by infrastructure modernity. “Before this program was completely realized, the railroads had pre-empted nearly all the land of the Weehawken, Hoboken, and Jersey City waterfronts, the very texture and configuration of which was wholly shaped by rail and harbor construction.” One example: the Pennsylvania Railroad’s new eastbound yard had a capacity of 2,224 rail cars, its westbound yard slightly less. A second example: the land between Jersey City and Black Tom, a small offshore island, was filled in by the Lehigh Valley Railroad and made into an impressive port facility. As far as transportation was concerned, New Jersey was no longer a keg tapped at both ends, as Ben Franklin reputedly mused, but a mature system ready to play a pivotal role in the Great War.

The railroad bridge crossing the Delaware at Trenton has long featured a sign: Trenton Makes, the World Takes. This applied to the state as a whole in 1914. New Jersey was not just a garden state and a railroad state, but a factory state. The state’s Bureau of Industrial Statistics published “The Industrial Directory of New Jersey” beginning in 1901. In October, 1914, it presented its latest edition to Governor Fielder. Some 750 pages in length, the work not only covers manufacturing in the State as a whole, but in every city, town, and hamlet with a population of one hundred or more. Partly providing data, partly highlighting the assets of each community, it was intended to promote the expansion of manufacturing in New Jersey. Thus it lists those towns offering free sites and/or financial assistance to new enterprises. Emphasized is the State’s superiority in railroad transportation; each article on a community begins by citing its location on or near a railroad. Information on a municipality’s financial institutions and labor force is also included.

In 1914, New Jersey ranked 6th among the states in the value of its manufactured goods, with 450,000 people employed in that sector. New Jersey was first in the country in the production of silk goods and linoleum, in the smelting/refining of copper, and in the manufacture of sewing machines. The Singer Sewing Machine plant in Elizabeth employed about 8,000 persons. The country ranked 2nd nationally in chemicals, rubber goods, clay products, paint and varnishes. In electrical goods and machinery, she was 3rd. Paterson had over eighty silk works. Not to be outdone in the textile field, Newark was home to the world famous Clark Thread Company. Diversity was the hallmark of industry in Newark and other cities. The list of manufacturers in Jersey City, for example, covers almost five pages in the Directory. These plants, and the growth of an urban society with its tall buildings, resulted in many ancillary activities. The Otis Elevator plant in Harrison was a booming business, with a payroll of five hundred workers. New Jersey's capacity for power production - water, gas, and electric - was both impressive and supportive of her industrial might. The State's industry was well prepared to be a major actor in the future.

What was life like in 1914? For most there was a common thread - the day was dominated by long hours at work. Farm families labored from dawn to dark every day but Sunday. In industry only 5% of employees worked less than 48 hours each week. Twenty per-cent worked 60 hours or more. Child labor was virtually unregulated on farms, in cranberry bogs, and in the South Jersey glass industry. In other areas it was becoming somewhat restricted. In 1914, the minimum age for work in factory or store was fourteen. Children 14-16 could not work more than 8 hours per day, 48 hours per week, and had to be given Sundays off. A compulsory education law mandated attendance at a public or private school for those between the ages of 7 and 16. But there was a big loophole. With certification, i.e. "working papers," a child could go to work if he/she had

completed five years of schooling. There was little regulation of female labor. In a few dangerous industries women were restricted - to a 10-hour work day, a 60-hour work week.

Work obligations left one with little spare time. This was true even in the business world. With a highly competitive economy, many a businessman burned the midnight oil to stay at least even with the competition. In addition to a legion of pubs and beer gardens, city life did offer some diversions. There were parks and playgrounds, dance halls and theaters, baseball fields and the new kid on the block - the motion picture playhouse. Newark, for example, had two large parks, Branch Brook in its northwest section, Weequahic in the southeast. Downtown there were seven motion picture houses, five vaudeville venues, a theater for Jewish drama, three for stage plays, and a burlesque house. Newark's professional baseball team, the Bears, competed in the International League. In the countryside there was little professional entertainment. Family and neighborhood gatherings would have to suffice. Otherwise there was only the local tavern and, in the summer, perhaps a traveling road show or circus.

Few could afford an automobile in 1914, even though many versions were priced under \$1,000. Substituted was the weekend excursion, by bus, train or boat, to the seashore or a highland lake. Trips were organized by churches, and by political and social clubs. This points to the characteristic that perhaps best illustrates social life in the early 20th century: the prevalence of clubs. Ethnic clubs, church groups, patriotic clubs, fraternal lodges, charitable and reform organizations, temperance societies, Boy Scouts and Girl Scouts, political clubs, etc., crowded the landscape in city and suburb. Some clubs were old (Masonic Lodges), some were new (a Newark branch of the National Security League), many had quaint names (Knights and Ladies of Honor; Improved Order of Heptasophs; Order of the Amaranth). Some were democratic, others were

snobbish, some were open-minded, others were biased and closed-minded. All, however, provided welcome relief from the tedium and drudgery of life in the new industrial age.

In 1914, what was New Jersey government like? The 1776 Constitution, reflecting antagonism towards colonial governors, had placed control in the hands of the state Legislature. It was still there. Constitutional revision in 1844, and a series of amendments in 1875, tried to eliminate the most objectionable legislative practices, such as deciding divorce cases and interfering in municipal affairs. But in a lament that would find a sympathetic hearing today, Governor Fielder complained that “too many bills are introduced without the slightest importance to the State at large....Notwithstanding the constitutional limitation on special legislation, I venture to assert that two-thirds of our laws are passed to meet special cases or serve special purposes.”

The governorship still had not overcome the negative impact of its colonial reputation. Elected for a three-year term and unable to succeed himself immediately, the Governor had a weak veto, little staff, and minimal patronage. Most important posts were filled by the Legislature. The rise of mass circulation newspapers at the end of the 19th century did, however, give him opportunities to influence and tap public opinion. Public support helped Governor Woodrow Wilson advance his Progressive agenda in 1911-1912. He secured laws aimed at reforming municipal government, the electoral and jury systems, and attacking government and corporate corruption. Regarding this last item: New Jersey at the time was known as the “Mother of Trusts.” But Wilson moved on to the Presidency in 1913 before the effectiveness of his program could be evaluated. One wonders if the salary differential influenced his desire to leave Trenton. The Governor’s annual salary was \$10,000; the President’s \$75,000 plus a \$25,000 travel allowance. Wilson was succeeded by a Hudson County Democrat, James Fielder, as acting Governor. Fielder

was elected to a full term that autumn, and thus was in office during the early years of the Great War.

New Jersey's judicial system in 1914 was a bewildering concoction of common law, equity, and specialized courts. It was paradise for lawyers, Hades for the ordinary citizen attempting to make use of it - or even to understand it. Probably not one person in a thousand knew what the Court of Oyer and Terminer was all about, including members of the legal profession. Periodic efforts at reform were rejected by the Legislature which, to no one's surprise, typically had a large covey of lawyers among its members.

Then as now, New Jersey was known as a home rule state. This phrase had a number of connotations. It referred to the insistence by residents on local privileges and controls. It meant a long tradition of legislative deference to that bias. An 1875 Constitutional amendment, for example, made the Legislature responsible for a "thorough and efficient" system of free public schools for children ages five to eighteen. Rather than creating strong administrative machinery at the state level to pursue that mandate, the Legislature left things in the hands of 472 local school districts. Finally, home rule had a political dimension. With legislators elected on a county basis for short terms - one year for the Assembly, three for the Senate - they were usually in the pockets of county party leaders who controlled campaign finance and access to the voters. Small wonder that state needs took a distant second place to local concerns.

At the outset of the Great War most New Jerseyans subscribed to the axiom: the best government is the one that governs the least. State appropriations in 1913 totaled 13.3 million dollars, with 43% of that amount channeled through twenty-one county Superintendents for school support. Since there was no Governor-initiated budget process in those days, total expenditures are difficult to gauge accurately. Treasury reports list funds dedicated to a variety of causes and

institutions. In a generous gesture, for example, the Legislature decreed that a school district raising \$10 in one year for its library would receive a matching state grant of \$10.

Looking more closely at education: the public school system counted some 500,000 pupils in 1914, with the overwhelming number of these in grades K-8. Only about 35,000 were in secondary schools. New Jersey had one Normal School, i.e. teacher training school, in the 19th century, located at Trenton. Two more had been added recently, at Montclair in 1908 and Newark in 1913. The low numbers attending high school reflected the fact that child labor still was prevalent. To make ends meet, many families - especially those of immigrants - sent their children out to work. "Children entered the workforce in their early teens, with boys often assisting fathers as helpers. Family earnings were pooled for collective support"

Like its school system, New Jersey's military organization and operations were decentralized. The strength of the National Guard (militia) in 1914 was 323 officers and 4,439 enlisted men. They were assigned to infantry, cavalry, and artillery units, as well as a signal company and a field hospital. The Guard's campground was at Sea Girt, Monmouth County. Meetings and training sessions were held at sixteen armories scattered around the state. Personnel were a mixture of committed volunteers and politicians, with the latter highly visible within the officer corps. The legal head of the Guard was Governor Fielder, the commander Major-General Dennis Collins, a veteran of the Spanish-American War. Irish-born, Collins "is a Democrat in politics and represents Union County on the (Democrat) State Committee.... He is President of the Common Council of the City of Elizabeth, having served in that body for a period of twelve years." The Quartermaster-General was C. Edward Murray of Trenton, described as one who "from boyhood ... has taken a great deal of interest in affairs of the city of Trenton, as well as the Republican party." Murray had served as Trenton city clerk, and in 1904 was a delegate to the

G.O.P.'s national convention. New Jersey also had a small Naval Reserve (militia) force, consisting of 25 officers and 394 enlisted men.

The country's military leaders, unimpressed with America's National Guard training and readiness at the time of the Spanish-American War, had been pressuring Congress for reform. Reform in their mind meant increased national control. Congress responded with the Militia Act of 1903, amended in 1908. These laws authorized grants to the States for modern equipment and for summer training camps. In return each State was required to accept policies and standards set by the regular Army. In addition, the President could call the National Guard into federal service, although there were limitations. The U.S. Attorney-General told the President it was unconstitutional for Guardsmen to be sent outside the United States.

Chapter 2: The Larger Picture

In 1914 the principal nations of Europe were ready for war. Conscription had enabled them to create large standing armies, supported by substantial reserves. Germany had a peacetime army of 780,000 and could mobilize an additional 3 ¾ million. Russia's standing army was 1 1/3 million, backed by an additional 4 ½ million in reserves. In Austria-Hungary the figures were 480,000 and 2 million; in France 700,000 and 3 ¾ million. Great Britain was in a different league. Her regular army totaled 192,500 and they were spread throughout her global empire. This total was exceeded even by Serbia's 300,000. Great Britain depended on her Navy - the largest and most powerful in the world - to protect the homeland, as well as her commerce and empire. The recent addition of super-battleships, the so-called Dreadnoughts, to her surface fleet made it even more threatening. But the Great War began as a land war, and would largely remain one. After entering the war on August 4, 1914, Britain mustered six divisions and shipped them across the English Channel to help in the defense of Belgium and northern France. The Minister of War, Lord Kitchener, believed

the war would be a long one, and that Britain must build a mass army to compete. He issued an urgent call for volunteers. The iconic poster “Your Country Needs YOU!” featured a stern Kitchener pointing a threatening finger. The nation’s reply was enthusiastic and Britain soon had a million-man army. Horrific losses meant that volunteerism lost its luster, and in January, 1916, Parliament approved the conscription of single men in England, Scotland, and Wales. The British dominions also began the war with volunteers. South Africa and New Zealand adopted conscription in 1916, Canada in 1917. Australia remained committed to voluntary service.

A mass army requires masses of armaments and supplies. The Allies (Britain, France, Russia, Belgium, Japan, and from 1915 on, Italy) could call on the British Empire for food, especially for wheat and meat. Her merchant fleet, the largest in the world, could provide transportation. Industrial production, essential for a sustained war effort, was another story. The loss of mines and factories in northern France early in the war was a major setback. Although French industry rebounded by expanding in unoccupied areas, a huge productive gap existed. Germany’s annual output of steel was three times that of Great Britain. Her chemical and armaments industries dominated the world’s markets. There was only one major industrial power the Allies could turn to for help: the United States. What would be the American response?

When Woodrow Wilson became the 28th President in March, 1913, he intended to bring his program of Progressive reform from Trenton to Washington. He remarked to a friend “it would be the irony of fate if my administration had to deal chiefly with foreign affairs.”⁸ But this is exactly what happened. His first term was marked by troubles in the Caribbean and Mexico. In 1916, Wilson would send a punitive expedition, led by General John J. Pershing, into Mexican territory in pursuit of the revolutionary, Pancho Villa. Unfortunately, the unsuccessful effort brought only embarrassing skirmishes with Mexican troops. But everything paled by comparison

with the impact of the European war. This all but ended Wilson's reformist dreams. The summer of 1914 was also a time of personal tragedy for the President: his wife, Ellen, was terminally ill and would die on August 6.

Wilson issued a Proclamation of Neutrality on August 4; this was followed by an address to the Senate on August 19. In this speech the President stated "The effect of the war upon the United States will depend upon what American citizens say and do. Every man who really loves America will act and speak in the true spirit of neutrality, which is the spirit of impartiality and fairness and friendliness to all concerned." The administration, however, opened up the proverbial can of worms by holding that it would not interfere with the commercial manufacture or sale of arms or munitions of war.

Any hope for economic neutrality quickly proved to be unrealistic. The British Navy blockaded the North Sea and English Channel, moved aggressively against German merchant ships, and against any shipping to neutral countries where Germany was suspected to be the ultimate destination. The message was clear: if you want to get into the war business, you have to deal with the Allies. American business was, by and large, willing to do this. And so hordes of brokers, purchasing agents, and hustling opportunists rushed across the Atlantic. Most of them were British, for England quickly dominated the areas of Allied supply and finance. The immediate result was chaos as American industrial, transportation, and agricultural interests, seeking to cash in, tried to cope with this motley crew. An early picture is provided in a letter of protest to the U.S. State Department by Germany's Ambassador. On September 15 he claimed that British agents had already purchased 49,500 horses and 500,000 Winchester rifles, and that the Russians and Japanese were buying tons of explosive powder from the Du Pont companies. In a biting comment

on U.S. “neutrality,” the Ambassador claimed that a French General was being wined and dined by Bethlehem Steel while in the process of ordering armaments from that corporation.

Trying to bring order to the process, in January of 1915 the British made New York banker J.P. Morgan Jr. their broker/purchasing agent. This was a private, off-the-books arrangement; government action would have compromised America’s official policy of neutrality. Morgan in turn created a subsidiary organization, the American Export Corporation, headed by Edward Stettinius Sr., to work out the details. With the silent acquiescence of the Wilson administration, Great Britain gradually established unofficial “missions” in the U.S. The key ones were agencies of the British Ministry of Munitions, the Board of Trade, and the Royal Commission on Wheat Supplies. France also established purchasing missions working through Morgan.

The American section of the British Ministry of Munitions was the largest and most active of these operations. By the end of 1916 “it employed nearly 1,600 members in the U.S. Its inspectors were in every factory which had a contract with Britain, its agents rode the trains carrying munitions to port ... and its agent watched the loading of the munitions on board the ships to prevent time bombs from being placed aboard.” As war continued the Allies became increasingly dependent upon the U.S., and this dependence was multi-dimensional. A British report in the fall of 1916 stated:

The Ministry of Munitions procured a large percentage of its guns, shells, metals, explosives, and machine tools from the United States; the Army Department considered that there was no substitute for American supplies of oils and petroleum, nor for that of preserved meat. The Board of Trade stated that for cotton, for foodstuffs, for military necessities, and for raw materials for industry, the United States was “an absolutely irreplaceable source of supply”; the Board of Agriculture emphasized the dependence of Britain on the United States for grain and finally, the Treasury stated baldly that “of the five million Pounds (sterling) which the Treasury have to find daily for the prosecution of the war, about two million Pounds has to be found in North America.

Materials dependence thus brought with it financial dependence.

London had long been the banking center of the world. British investors financed much of America's industrial and transportation development in the post-Civil War era. These debts could be and were called in. But, given the expenditures required to support mass armies for a prolonged period of time, this source of revenue was insufficient. To oversimplify somewhat, the Great War would have to be waged on credit. This meant looking again across the Atlantic, and since the Bank of England did not possess adequate machinery to deal with U.S. financial institutions, looking to J.P. Morgan for help. As a professed neutral, the American government had to stay on the sidelines.

In August, 1914, the French sought Morgan's assistance in trying to float a 100 million dollar loan. The U.S. State Department nixed the move, saying that loaning money to a nation at war, even by private bankers, was "inconsistent with the true spirit of neutrality."¹² But this attitude couldn't last. Allied buying would end if credit were not available. Realpolitik prevailed. In September, 1915, an Anglo-French mission came to New York to borrow money. Again it was an unofficial visit; arrangements had to be between Allied and U.S. banks. Morgan developed a syndicate to raise five hundred million dollars. It was not an easy sell. The war was not going well for the Allies, the idea of investing in foreign bonds was new to the American experience, and much of the country looked askance at Wall Street operations. By the end of 1915, only thirty-three million had been raised from non-institutional investors. To succeed, the syndicate even had to court munitions and armament producers. No loans meant no purchases. Du Pont, Bethlehem Steel, and Westinghouse eventually subscribed to seventy million of the bonds.

The inter-dependence between purchasing and borrowing would continue. "The period January, 1916- April, 1917 saw the inexorable growth of British purchasing in the USA. This made it increasingly necessary to raise dollars for the goods, and 1916 saw a series of British loans issued

in New York, money for which Britain was forced to pay ever higher rates of interest. These interest rates reflected both the decreasing faith in ultimate Allied victory and the increasing attraction of domestic American investments,” especially in war industries.

American attitudes towards the war, 1914-17, were as diverse as its population, ranging from strident militarism through pacifism to indifference. A sizeable majority hoped and prayed that America could stay out of the conflict. As one British commentator put it, “The strongest sentiment in the United States of today is not anti-German, not pro-ally, but pro-peace. There is nothing Americans desire more fervently than to keep out of the present ghastly struggle.”

The American working class, heavily immigrant in 1914, was caught up in the daily struggle for existence in a country where low wages and poor working conditions were still the norm. Workers had little time for, or interest in international relations and the European war. Most, after all, had turned their backs on Europe when they crossed the Atlantic. As for regional attitudes, generalizations must suffice. The Eastern establishment was generally friendly towards the Allies. The elite produced by the industrial revolution were devotees of British and French culture. The possession of an overseas estate and intermarriage with an aristocratic family were highly desirable. J.P. Morgan’s niece, for example, married an English Viscount.

Leaders in the Mid-West and Far-West had long been critical of this Eastern establishment: Wall Street was the enemy, profiting from and draining away their resources. They were cool towards its wartime attitudes and activities. This was also true of their large German and Scandinavian populations. Merchants were upset at their inability to trade overseas, even with neutral countries, without jumping through the hoops of the British blockade. They were particularly incensed by a July, 1916, British blacklist of U.S. firms suspected of dealing with Germany and Austria. This action angered President Wilson, who complained but did nothing.

The mass circulation newspaper - the “yellow press” as it was called - was in its heyday. Sensationalism was seen as the key to circulation and profits. No sooner did the war begin than atrocity stories appeared, such as allegations of widespread rape and murder in Belgium. Similar articles, accompanied by lurid drawings, would continue throughout the conflict. Ironically, William Randolph Hearst, one of the pioneers of the sensationalist newspaper, was anti-British and anti-Morgan, and used his nationwide string of dailies to lambast both at every opportunity. The German language press in the U.S. was typically in a defensive mode, not only because of the Belgium stories, but also because of submarine activities, especially the sinking of the passenger vessel *Lusitania* in 1915, when 124 American lives were lost.

Early in the war, the belligerents established propaganda agencies in the United States. A German Information Service was set up in New York City in August, 1914. It produced a weekly newspaper, *The Fatherland*, which was a conduit to the country’s legion of German language newspapers. The British followed in September with a department of their War Propaganda Bureau. A major coup occurred when a British ship intentionally cut Germany’s trans-Atlantic cable, giving London a near monopoly of telegraphic communication with America. To file their reports, U.S. journalists had to work through London authorities - and subject themselves to the whims of British censors. The English spent millions courting the American public. For example, they had a mailing list of 260,000 opinion leaders and deluged them with brochures, pamphlets, and newsletters. It is possible that these propaganda efforts canceled each other out, although the Allies clearly had the better of it in the atrocity story realm.

Some Americans refused to be just passive recipients of European propaganda. There were two major domestic movements designed to shape public opinion. One was the anti-militarism Peace Movement, which included religious and union leaders, women’s groups, farm spokesmen,

academics, the Socialist Party, and many Congressional Democrats. Ex-Secretary of State William Jennings Bryan - he quit the Wilson administration in 1915 - was a major supporter. Jane Addams, a noted Progressive reformer, helped form a Women's Peace Party which conducted rallies and parades throughout the country. Violence was not part of its strategy. Nonetheless, violence did take place. San Francisco was a stronghold of anti-war sentiment. On July 22, 1916, a preparedness parade there was marred by an exploding suitcase that killed ten and wounded forty.

The Frisco parade was a major undertaking in the West by a counterforce, the Preparedness Movement. Led by former President Theodore Roosevelt and General Leonard Wood, it was strongest in the Northeast. It argued that the U.S. would inevitably be involved in the shooting war, and immediate expansion of our armed forces was essential. In December, 1914, the National Security League was created to give the movement structure. By 1916 it had 50,000 members and chapters in forty-two states, including New Jersey. The League aggressively promoted patriotism, physical training for the young, and universal male conscription. Its model, although not admitted, was the European nation-in-arms.

Closely related, and featuring many of the same actors, was the Plattsburg Movement. As Europe drifted towards major conflict there was concern about the small number of experienced Army officers and the quality of politics-dominated state militias. A committee, which included a young Douglas MacArthur, was appointed by Army Chief of Staff General Leonard Wood to make recommendations. The committee proposed establishing summer training camps for select college students. The goal was to develop an elite group of reserve officers who could function as cadre in any future conflict. Two camps, one in the East, one in the West, were held in 1913; four in 1914. With the outbreak of the Great War, interest mushroomed. A summer camp was operated in 1915 at Plattsburg Barracks in upper New York State. Among those who attended were the Mayor

of New York City, two Roosevelts, and the managing editor of the *New York Times*. Although only one of a number of similar camps that summer, publicity provided by the *Times* led to the movement's popular name. Not everyone was enthusiastic: pacifist leaders mocked the camps unmercifully. Nonetheless the experiment was continued in 1916. One of the instructors at a camp in California was Captain George C. Marshall, Army Chief of Staff in World War II and subsequently U.S. Secretary of State. When America entered the war in 1917, these camps were replaced by Officer Candidate Schools, open to all classes and races. At the time of the Armistice some 46,000 men were enrolled in the schools, setting a precedent for future.

During these years, President Wilson equivocated. Although an Anglophile at heart, his goals were a negotiated peace, with himself in a key role, disarmament, and a League of Nations to resolve international disputes. Additionally, he did not want to enter his 1916 re-election campaign labelled as a warmonger. Wilson did accept the modest preparedness moves made by Congress in the summer of 1916. The National Defense Act of June 1916, did not fulfill the ambitious objectives set by the National Security League, but it did advance them. Three hundred and seventy-five airplanes were authorized for the Army's infant air force, and an ROTC (Reserve Officers Training Corps) program was approved at select colleges. The Army was authorized to expand to 175,000 men, the National Guard to 450,000. Probably the Act's most significant provision dealt with the future of the National Guard - the old state militias. Uncle Sam agreed to finance increased training and modern equipment for the Guard. In return, the President was authorized to call the Guard into federal service, even overseas service, in cases of emergency or war, and to command them for its duration.

This statute was followed by two others in August 1916. A Naval Defense Act authorized sixteen new capital ships, including four battleships of dreadnought caliber. A Council of National

Defense Act established an agency, composed of six Presidential Cabinet members, to coordinate resource acquisition and allocation in any future war. Looking at these Congressional actions, one should note that the road from authorization to reality could be a long and bumpy one. Wilson was in no hurry. Rather than push vigorously for the implementation of this legislation, the President spent summer and autumn on the campaign trail, where the central theme was “He kept us out of war.”

Chapter 3: The New Jersey Economy 1914-1917

The Great War's early years, 1914-17, were marked in New Jersey primarily by their effects on the state's economic life. There were the wants of the Allies, and the opportunities these presented. There was the need to replace goods that New Jersey had previously imported from Europe. There were major changes in trans-Atlantic trade, triggered by the British blockade of Germany and neutral countries, and by retaliatory measures taken by Germany, especially submarine warfare.

Allied needs would change somewhat during this period. There was a continuing, and steadily increasing cry for guns, ammunition, horses, mules, coal, and wheat. As the use of automobiles, trucks, and airplanes expanded exponentially, so also did the demand for oil and gasoline. The end of imports from Germany was significant, because of that nation's advanced manufacturing industry. Germany, for example, was the chief supplier of chemicals, both inorganic and organic, to the world. Blockade thus made rapid development of the domestic chemical industry imperative. New Jersey, already prominent in the field, saw the number of chemical plants increase from forty in 1914 to fifty-three in 1917. One example: the Edison plant in West Orange was a major producer of phonograph records. Imports from Germany of an essential chemical, phenol, were shut off. Edison's researchers came up with a formula for

synthetic phenol, and the company opened plants in the Silver Lake section of Essex County - parts of Belleville and Bloomfield - for its manufacture.⁸ Another example involved the Du Ponts. In 1914 they bought a tract of land near their Carneys Point, Salem County, explosives factory to build an additional plant. Known at the time as Skunk's Misery, it became the community of Deepwater Point, and soon began producing such chemicals as chlorine for poison gas and diphenylamine. The latter was used in smokeless powder manufacture, but was also a key ingredient for dyestuffs. Once again there was a crucial need for a domestic supply because of the end of German imports. In response Du Pont began the construction of a dyeworks at Deepwater and, significant for the future, a laboratory to explore the field of synthetic dyes.

The state's economy was also influenced by alterations in the domestic market as consumer tastes and priorities changed. The burgeoning automobile market - there were some 450 manufacturers nationwide - provides one example. Although New Jersey had a share of these plants, her forte was automobile tires. The number of tire plants rose from nineteen in 1914 to twenty-seven in 1917. The popularity of movies and recorded music was also a boon for New Jersey business. Although the shift to Hollywood had begun, West Orange, Fort Lee, the Palisades, and the Meadowlands were still major players in the movie industry. So, too, were Edison's West Orange plant and the Victor Talking Machine works in Camden in the field of recorded music.

If a company wanted to profit from what was called "the war order business," it had to retool at least part of its operations. Elizabeth's Singer Company, with an employee total that ranged between 7,000 and 8,000 during these years, found its sewing machine business swamped by orders as the uniform and military clothing business expanded. But Singer wanted to get involved in armaments, so it began to turn out .45 caliber revolvers and 75 mm. cannon. Later it would manufacture rifle parts, artillery shell parts, and detonator cases.

Three inter-related areas that witnessed significant change - and significant problems - during the war's early years were shipping, shipbuilding, and petroleum. Passenger trade and commercial trade moved in opposite directions. It was brave, probably foolhardy, to send a passenger vessel across the Atlantic. The owners of Hamburg-American and North German Lloyd didn't even try. Unwilling to chance the British blockade, they voluntarily interned their ships in American ports. Hoboken held the majority of these ships, including the *Vaterland*, the largest passenger liner afloat. On May 7, 1915, England's Cunard liner, *Lusitania*, was sunk by a German submarine off the Irish coast, with a loss of 1,191 passengers and crew, including 124 Americans. Although the imperial government announced in the autumn that it would no longer attack passenger ships, this hardly renewed enthusiasm for ocean voyages. Certainly the traditional European vacation favored by the well-to-do was at an end. So, too, was any substantial immigration.

On the other hand, expectations of high profits caused trans-Atlantic commerce to grow steadily. It was a high risk activity, since cargo ships generally traveled alone. A convoy system had not yet been instituted: the British Admiralty claimed it did not have sufficient resources to provide protection. An estimated 748,000 tons of merchant shipping were lost in 1915, but this did not deter many entrepreneurs. Losses like these led to contracts for replacements from New Jersey shipyards. Camden's New York Shipbuilding kept its 4,500 employees busy. The city also had four smaller shipyards with workers numbering between one hundred and two hundred. New York Shipbuilding's emphasis, 1914-17, was on colliers, tankers, and car floats - railroad car barges used within harbors. The company did some work for the U.S. Navy, delivering one destroyer in 1915, and two in 1916. It also launched a battleship in 1916, the *Oklahoma*. Unfortunately, the *Oklahoma* would be a Pearl Harbor casualty in 1941.

The British Admiralty also courted American shipbuilders. With the world's mightiest fleet of capital ships - dreadnoughts, battle cruisers, cruisers - what it desperately needed were small, speedy vessels for coastal defense and anti-submarine action. This led to work for Bayonne's Electric Launch Company: ELCO. ELCO had thrilled the nation with its fleet of battery-operated motor boats at the 1893 Columbian Exposition in Chicago, and had become a popular builder of luxury yachts by the turn of the century. In April, 1915, ELCO entered into a contract, through J.P. Morgan, to supply fifty 80' motor launches - sub-chasers - for the Admiralty. After the Lusitania tragedy the following month, the British ordered five hundred more. ELCO completed the assignment by November, 1916. The company also supplied the Italian Navy with thirty-three motor launches.

That New York Shipbuilding gave priority to tankers points to another item the Allies wanted the U.S. to provide: fuel. Again New Jersey was at the ready. Here the name was not Du Pont but Rockefeller. Just as the Du Ponts had come to dominate explosives, John D. Rockefeller dominated oil. Taking advantage of New Jersey's permissive incorporation laws, Rockefeller established the Standard Oil Company of New Jersey - SONJ - in 1899 to provide a legal base for his empire. This move quickly earned the ire of Progressive Era trust-busters. In 1906 SONJ was hit with a court suit alleging violation of the Sherman Anti-Trust Act. It is estimated that Standard Oil controlled 86% of the country's refinery business at the time. In 1911 a federal court declared the trust "an unreasonable monopoly" and ordered its breakup. Thirty-four distinct companies resulted. SONJ retained control of the New Jersey operations: Eagle Works in Jersey City, producing lubricants; Bayway refinery and research facilities in Linden, with 2,500 employees; and the huge Bayonne refinery with 5,400 employees. Bayonne was also the site of a competitor, the Tidewater Oil Company refinery, with 1,500 employees.

In his later years, Rockefeller was known as a generous philanthropist, founding and financing charitable, medical, and educational institutions. During his active business years he was reputed to be a savvy and ruthless competitor. He shared the social attitudes of his fellow titans: hostility towards unions and indifference towards workers. To stifle unionism, his companies provided their employees with just enough to keep them productive and docile. The average worker at the Bayonne refinery worked a 76-hour week in 1914 and earned \$783 a year. Many came from Eastern Europe, recruited right off the boat at the immigrant reception center on nearby Ellis Island. Working conditions were rough. Especially dirty and dangerous was the job of cleaning stills. This had to be done after each batch of crude oil was processed. At this time Rockefeller's companies were shifting emphasis from kerosene to gasoline and fuel oil, further complicating refinery processes. Between 1912 and 1917, Bayonne's kerosene production declined from 30% to 9% of output, while gasoline rose from 24% to 41%.

In mid-July, 1915, Bayonne's still cleaners - mostly Polish immigrants - walked out in protest against low pay and inhuman working conditions. The Mayor of Bayonne, a lawyer on the Rockefeller payroll, called out the police to force the men back to work. Things escalated and on July 20 rioting occurred, the plant was shut down, and one man was shot to death. The company brought in professional strikebreakers, leading to increased violence. A riot at the nearby Tidewater Oil refinery followed, with more killed and wounded. Through the intervention of the Hudson County Sheriff, and with management promises of reform, the men finally went back to work on July 28. On July 31, the company announced pay raises. Those making \$2.50 a day or more received a 25 cent increase; common laborers went from \$1.75 to \$1.98 per day. A major concession came in September: an eight-hour day, forty-eight-hour week. Perhaps emboldened by their success, the workers went on strike again in October, 1916. More deaths, more injuries.

Enthusiasm for a long strike just wasn't there. In less than two weeks the strike petered out as management made vague promises of a pay increase. To provide perspective on the fuel business in the Great War: the earnings of Standard Oil's Bayonne refinery in 1914 were \$372,000; in 1915, \$6,552,000.

Shifting attention to pharmaceuticals: New Jersey, like the rest of the country, was transitioning from the world of medicine show elixirs and patent nostrums into the world of over-the-counter and prescription medicines. It was a slow journey. Witness a *New York Times* advertisement on September 20, 1914, promoting the wonders of Johann Hoff's Malt Extract. "Used by all Nations for over fifty years in cases of general debility, convalescence, and for mothers while nursing. Aids digestion. Johann Hoff's extract makes FLESH AND BLOOD. At all druggists. 25 cents a bottle." At the time, unfortunately, too many soldiers were shedding flesh and blood. The life savers of World War II – penicillin, sulfanilamide, portable blood plasma – were still in the future.

As with chemicals in general, America depended upon Europe for its pharmaceuticals. Three German companies (BASF, Bayer, Hoechst) and two in Switzerland (Ciba, Geigy) towered over the world's markets. New Jersey in 1905 had only a handful of small firms, including Rahway's Merck with ten employees and Phillipsburg's John F. Baker with twenty-five. 1914 saw only modest growth. Merck by then had sixty employees, Baker seventy. John Wyeth had opened a plant in Woodbury, yet counted only twenty-two employees.

The British blockade did provide openings for New Jersey's embryonic pharmaceutical industry. But the big money was in munitions and that's where the State's chemists placed their research emphasis. There were, however, indirect effects of the blockade that showed promise for the future. There was the scholarly interest in organic chemistry, and the corporate interest in coal-

tar based synthetics. A big break came after the U.S. entered the war in 1917. Congress expropriated German chemical patents, making them available to American firms. The stage was set, although slowly, for the emergence of a major New Jersey industry. The practice of patenting chemical formulae did not begin until the mid-1920's.

During the war years, New Jersey did make significant contributions to the survival of military casualties. One was in the field of quality surgical instruments, a Newark specialty. Another was anaesthetic ether, where E.R. Squibb of New Brunswick had been active since the late 19th century. Arguably most important was the work of the Johnson brothers, who headed another New Brunswick firm. Johnson and Johnson (J&J) was a 19th century pioneer in sterile surgical dressings, absorbent cotton, and bandages. During the Great War the Allies obtained the bulk of these necessities from the firm. In 1905 the plant employed 1,100 persons; by 1918 it had added another thousand. Most were women. J&J also mass-produced a breakthrough wound treatment, the Carrel-Dakin system. Wounds were typically complicated by infection, and existing antiseptics proved unsatisfactory. A French surgeon, Alexis Carrel, and a British chemist, Henry Dakin, developed a system that would irrigate a wound with a sterile solution. J&J became the principal supplier of ingredients for the solution, credited with saving countless lives and limbs during the war.

By the end of 1914, the Great War had become an artillery war on the Western Front. A line of trenches ran from the English Channel through northern France to the Swiss border. Trench warfare made cavalry charges obsolete. It also made unsupported infantry attacks, given the use of barbed wire and machine guns by defenders, extremely costly. Artillery bombardments were believed necessary to prepare for and supplement any offensive action. The production of artillery shells thus became a high priority for the Allies, who turned to America and her industrial might

for help.

The U.S. had done little to develop modern howitzers and field cannon during the pre-war years. The howitzer fires its shells in an arc; field guns have comparatively flat trajectories. Bethlehem Steel was an organization that could adapt to the production of such European models as the English 18 pounder and the French 75 mm. Bethlehem was skilled in all phases of the iron and steel industry. Few other contemporary firms, however, could attain the quality required to manufacture modern artillery. Supplying ammunition was a different story: America had an advanced gunpowder and explosives industry. Gunpowder was produced for the rifles, shotguns, and pistols so popular in the post-Civil War era. Explosives - dynamite and TNT - were gobbled up by the nation's vast mining industry. Approximately 80% of explosives production ended up there. If converted to munitions manufacturing, the industry would be very profitable.

Producing artillery shells for the Allies meant three things: making parts, assembling and filling shells, and shipping the finished shells overseas. The 20th century artillery shell was a complex and sophisticated item, dangerous to make, dangerous to ship, dangerous to fire. Its principal components were a steel casing, detonator, propellant charge, i.e., smokeless powder, and finally a bursting charge, TNT or Amatol (TNT plus ammonium nitrate). For anti-personnel use, shrapnel - pellets or debris - would be added. Shells could be adapted to spread battlefield smoke and poison gas, and for use by mortars. Parts and powder could also be shipped overseas in bulk for use in Allied assembly plants.

New Jersey was uniquely situated to handle these tasks. She was already the nation's third largest producer of powder and high explosives; there was plenty of land in sparsely settled areas for new plants; immigration meant a large labor force; her railroad system provided intra-state mobility; her access to the North Atlantic, via the Delaware and Raritan Rivers and the Port of

New York, was unmatched. In short, New Jersey was ready to become the Arsenal of the Allies.

The iron mines of North Jersey had long encouraged the manufacture of powder and dynamite by small local plants. The military were also attracted to the area. In 1880 the Army built a powder storage depot - Picatinny - in Morris County. Renamed Picatinny Arsenal, it began to produce gunpowder in 1907. The Navy also had a powder storage plant nearby, in Lake Denmark. But the future lay with the private sector, especially to large firms such as Laflin-Rand and Du Pont. In 1898 the former constructed a company town, Haskell, and a smokeless powder plant in Passaic County. The latter had plants in the Parlin section of Sayreville, Middlesex County, and at Carney's Point, Salem County. Du Pont also had a dynamite plant at Gibbstown, along the Delaware River in Gloucester County. By the turn of the century, these two firms controlled over two-thirds of the powder (black and smokeless) and explosives (dynamite, TNT) business in the United States. Through a trust- the Gunpowder Trade Association- they stifled competition. After Du Pont bought out Laflin-Rand in the fall of 1902 it became the acknowledged king of the industry.

The federal government, in a trust-busting mood, was not impressed by the Du Pont story. Using the Sherman Anti-Trust Act of 1890 for leverage, it succeeded in breaking up the conglomerate in 1912. Du Pont was required to siphon off some of its assets to the Hercules Powder Company and the Atlas Powder Company. Most observers believed that Du Pont continued to control the industry through various subterfuges. The New Jersey economy was a major beneficiary.

Du Pont retained most of the smokeless powder business, with its close ties to the military, as well as the South Jersey dynamite operation, Repauno Chemical Company. Hercules set up next door to the Du Pont plant in Sayreville, and continued an existing operation in Kenvil, Morris

County. Atlas Powder acquired a dynamite plant in Landing, on the shores of Lake Hopatcong. Its other acquisitions were out-of-state. Ready, willing, and able, these plants soon expanded to meet the needs of the Allies. A *New York Times* article, August 1, 1915, estimated there were 5,000 workers in the Middlesex plants alone.

In all its phases, munitions was a dangerous business. Manufacturing powder, loading shells, transporting these to the waterfront, placing munitions onto barges for transfer to ocean-going vessels: every step was at high risk. New Jersey was heavily involved in the expanding business. It exported munitions worth 10 million dollars in 1914- 717 million in 1917. As munitions manufacturing grew, danger escalated, especially as semi-skilled and unskilled workers were hired. Plants held training sessions and brought in experienced supervisors and inspectors, but the risks were still there. Fires, explosions, and related disasters became part of the New Jersey story during the Great War. It was not in a corporation's interest to publicize these, but news of major tragedies did reach the press. Examples from 1914-17 include an explosion at Du Pont's Carney's Point plant in January, 1916; disaster at Jersey City's Black Tom complex in July, 1916; the destruction of the Canadian Car and Foundry plant in Lyndhurst in January, 1917; and a major explosion at Du Pont's Haskell works that same month.

The *New York Times* noted "there have been many explosions at the Carney's Point plant since the war began," as it reported on the January 10, 1916, incident.¹⁶ Three men were killed, others were injured, and the cities of Wilmington and Philadelphia rocked by the force of the explosion. Rumors of sabotage were discounted by a Du Pont spokesman. Sabotage by German agents was also rumored as causing the year's most spectacular event, the Black Tom explosion. The complex, which protruded out into New York harbor, had been developed by the Lehigh Valley railroad as its Jersey City terminus. An indication of size: it contained eighteen warehouses.

Railroad cars loaded with artillery shells and other munitions moved on tracks out to slips where barges were waiting to be loaded and towed to waiting freighters. Shortly after midnight on July 30, 1916, fire broke out on one of the barges. Despite efforts by the Jersey City fire department, the conflagration spread to warehouses and railroad cars. Tremendous explosions followed. Although the casualty list was small, the event became a national sensation. A major reason was its proximity to, and impact on Brooklyn and Manhattan. As the night sky blazed with exploding shrapnel shells, and thousands of windows were shattered, residents in nightclothes rushed around the streets in panic and confusion. Flying debris struck the Statue of Liberty, as well as Ellis Island, thoroughly frightening that island's staff and some five hundred immigrants awaiting processing. The latter were soon evacuated to lower Manhattan. Originally listed as an accident, later investigations labeled Black Tom's demise an act of German sabotage. Although little direct evidence supported that accusation, there were post-Armistice investigations and law suits against the German government. Legal action continued for decades. Finally, in 1953, the German Republic provided ninety-five million dollars to settle claims arising out of this and other alleged violations of U.S. neutrality.

Probably the equal to Black Tom in violence, but not notoriety, was the disaster in the New Jersey Meadowlands. The Canadian Car and Foundry Company, headquartered in Montreal, obtained contracts with Russia to supply war material. The company had eight plants in Canada, but- realizing the advantages of shipping through the Port of New York- decided to create a shell-loading operation in New Jersey. The factory was constructed in the eastern or Kingsland section of Lyndhurst, Bergen County. Drawing parts and powder from other factories, it reached an output of three million shells per month in 1916. On January 11, 1917, a fire broke out in a shell-cleaning shed, but could not be extinguished. The entire complex was quickly threatened. The operator at

the company's telephone switchboard, Theresa McNamara, called each building with the cry "get out or go up!" Fourteen hundred workers obeyed, fleeing into the frozen marshland surrounding the site. No lives were lost, but the complex was totaled. The explosion of a half-million shells gave nerve-shattering sights and sounds not only to the locals, but to New Yorkers as well. At the time Hudson County's penitentiary and charitable institutions were located close by, on the north side of Snake Hill in Secaucus. (The New Jersey Turnpike runs by Snake Hill today.) Although there was understandable panic, the guards and caretakers were able to maintain control. One story has it that ice cream and candy were given out to calm down a group of mental patients.

Two days later, thousands of pounds of smokeless powder exploded at Du Pont's plant in Haskell. Unshaken, the company claimed "while the amount of powder destroyed- about 460,000 pounds- was large, this loss will not interfere with deliveries."¹⁷ Du Pont faced more than the loss of powder. Having survived 25 explosions in 1916, many Haskell workers now quit their high-paying jobs and headed home. Despite these occurrences, prince profit prevailed. More shell loading plants appeared on the New Jersey scene, including American Can in Kenilworth, J.D. Evans in Old Bridge, and T.A. Gillespie in Parlin. Their combined output: 75,000 shells per day.

The boom in shell loading meant opportunities for ancillary businesses, e.g. those providing fuses, shell casings, detonators, and shrapnel. Many of these items were supplied by New Jersey factories. A related activity was the manufacture of silk bags in Paterson for bag loading plants. Cannon above the caliber of 4.7 inches did not use the traditional shell. Instead, powder was loaded in silk bags, the projectile placed in the gun, and a number of bags put into the breach of the gun behind the projectile. The powder was then ignited and the shell ejected. A large bag loading plant was built in Woodbury, Gloucester County; its productivity would rise from 20,000 bags a day to double that number by the Armistice. The plant ran two shifts a day, with

3,500 workers on each shift. Most of the workers were women, as was the case in many powder plants and shell loading operations.

Chapter 4: The New Jersey Economy 1917-1919

When America entered the Great War in 1917, thousands of new job opportunities opened up for New Jersey workers. Especially plentiful were jobs in the building trades. Carpenters, electricians, plumbers, et al, were needed as two large Army camps, Dix and Merritt, began to be constructed. As other military and naval facilities appeared, the need for these tradesmen increased exponentially. Persons with mechanical skills were in great demand to build and repair engines, make parts for and assemble rifles, machine guns, and cannon. The temporary halt to European immigration brought Southerners of both races to New Jersey seeking jobs. Newark's population increased from 347,469 in 1910 to 414,524 in 1920. The city's African-American population rose from 9,475 (2.1% of the total) in 1910 to 17,000 (4.1%) in 1920.

Some wartime manufacturers had to start from scratch to build plants, develop machinery and tools, and bring in power. Established firms could more easily adapt and expand. One example was Sigmund Eisner's factory in Red Bank, Monmouth County. He had started his clothing firm in 1885, made Army uniforms during the Spanish-American War, and Boy Scout uniforms starting in 1910. In 1915 the firm had 440 employees. Successfully obtaining contracts for Army uniforms when the U.S. entered the war, by the end of 1917 Eisner employed about 850 in Red Bank, and had set up factories in Long Branch, Freehold, South Amboy, Carteret, Chrome, and Newark. Other New Jersey businesses temporarily converted their operations to meet wartime needs. Uniforms need buttons. Two Newark companies were among those that responded. One was the American Button Company, in business since 1901. Another was Art Metal Works, which at the time made classic hood ornaments for automobiles. This firm expanded from one hundred to six

hundred workers between 1915 and 1918 in order to meet the demand for metal buttons and other products. Showing its versatility, Art Metal turned out 289,000 cartridge cases, 1917-1918.

From the vantage point of numbers, the New Jersey operations that showed the most impressive expansion, 1917-1918, were shipbuilding and munitions. With the U.S. merchant marine's position in world commerce declining for years, and with the loss of so many ships from 1914 on, Congress passed the Shipping Act of 1916 to confront the problem. The United States Shipping Board (USSB) created by this statute became a prominent agency once war was declared. On April 16, 1917, the USSB established an Emergency Fleet Corporation to take over shipyards and shipbuilding, while retaining policy and financial authority in its own hands. The USSB seized enemy vessels, requisitioned others, and entered into contracts with shipbuilders for specific types of ships. As veritable boss shipper, it assigned vessels to agencies such as the Army and Navy, decided what was to be shipped, and where. However, the time from negotiation to contract, then from design to delivery- given the state of the U.S. bureaucracy and the shipping industry- meant little was produced by war's end. Familiar work, e.g., turning out tankers, freighters, and colliers, could be continued at a faster pace by experienced builders. But demands for new types of vessels, not only by the USSB but also by the armed forces, proved more than existing firms could handle. New companies needed start-up time to build shipyards, acquire materials, and hire and train workers and supervisors. By way of illustration: the International Shipbuilding Corporation was hired to construct a mammoth new shipyard at Hog Island, near Philadelphia. It ultimately had 30,000 workers and fifty shipways- but none of its vessels was in service by war's end. The result was that America had to depend heavily on the British to transport men, animals, armament, food, and supplies during 1917-1918.

With a few exceptions, the New Jersey story was similar. Bayonne's Electric Launch

Company was one organization that could meet new demands. Rear Admiral William Sims, Chief of U.S. Naval forces in Europe, believed that the submarine threat required both an offensive and defensive response. He envisioned an offense built around “sub-hunters”- small, fast boats capable of detecting and sinking the undersea killers. The defensive response depended upon the reintroduction of a convoy system, and thus a rapid buildup of the Navy’s destroyer fleet to protect vessels moving in groups across the Atlantic. As has been shown, ELCO had already been constructing small coastal defense boats for the British Admiralty. But hunting submarines on the rough waters of the North Atlantic required a new design. As a result, the sub-chaser was increased in length from 80’ to 110’, given three rather than two 220hp engines, provided with depth charges and launchers, and equipped with a hydrophone for underwater sub detection. Eighteen ships of the new design were built in Bayonne and delivered by ELCO between November, 1917, and June, 1918. Their engines were made in neighboring Jersey City by the Standard Motor Construction Company. The Mathis shipyard in Camden also contributed: it delivered nineteen sub-chasers to the Navy by November, 1918.

New York Shipbuilding continued to turn out tankers, cargo ships, colliers, and barges in its Camden yard and an annex in Gloucester City. In 1918 the Emergency Fleet Corporation financed a planned community of 1,000 brick homes, Yorkship Village, in the south end of Camden to house workers and their families. New York Shipbuilding received a contract from the USSB for thirty modern destroyers but, despite herculean efforts, none was delivered before the Armistice. Two other shipyards were built in Gloucester City, but their owner, Pusey and Jones, likewise made no deliveries prior to the end of the war.

Three new shipyards were constructed along the Hackensack River, but the story was similar. The Submarine Boat Company, despite its name, worked on cargo ships but completed

none before war's end. Federal Shipyards also built freighters; only three were delivered by the end of 1918. The Foundation Company had a slightly better record, with five cargo ships completed by December, 1918. In neighboring Elizabeth, Bethlehem Steel reopened the old Crescent Shipyard and, given contracts by the USSB, began building freighters and tugs. Most of these were delivered post-war. Bethlehem also made two minesweepers for the Army, which were launched after the Armistice. Wartime activities, it should be noted, typically led to work being farmed out to neighboring businesses, bringing additional employment opportunities. The government, for example, completed construction of a Naval Aircraft (seaplane) Factory next to the Philadelphia Navy Yard at the end of 1917. Camden's Mathis shipyard built seaplane hulls, the Victor Talking Machine Company made airplane parts.

Despite America's formal entry into the war in the spring of 1917, it was almost a year before the munitions industry went into high gear. In part this was caused by confusion and conflict about the respective roles of the government and the private sector. Should the federal government establish its own corporations to manufacture arms and ammunition, or rely on the private sector—as had the Allies when dealing with the U.S.? It was not until January, 1918, that the idea of creating government owned and operated plants was all but abandoned. Private industry then went into action at high speed. Anticipating that the war would last at least through 1919, plans were ambitious and large-scale. A number of New Jersey plants began making cartridges and shells. Remington Arms made cartridges in Hoboken; Jersey City's Snead and Company produced over one million 75mm artillery shells. Shell loading plants located in Middlesex County: these included Du Pont, California Loading, and T.A. Gillespie in Sayreville, and J.D. Evans in neighboring Old Bridge. Two major operations were launched in the Pine Barrens of South Jersey.

Bethlehem Steel acquired 10,000 acres below Mays Landing, Atlantic County, for an

artillery proving ground. It shifted into the shell loading business in April, 1918, and began construction of a production/storage complex. Simultaneously, Bethlehem built a company town, Belcoville, to house employees and their families. The town was substantially completed by August, and contained housing for 400 families and 3,000 single men, as well as stores, churches, a school- even a bowling alley. Plant and town were tied into the state's railway system through a branch line financed by Bethlehem. The plant concentrated on 75mm, 155mm and 8" shells. Its first 155mm shell was loaded on July 1, 1918. Production continued through the summer and fall, and even into 1919, when it ceased. Today Belcoville is a community in Weymouth Township; a number of homes built in the Great War may still be found there.

Another ambitious Pine Barrens project was a loading plant and company town developed by the Atlantic Loading Company. It bought 6,000 acres east of Hammonton, Atlantic County, in what is today Mullica Township. In March, 1918, the company started the construction of a shell loading plant and supporting facilities. Two miles away the planned town of Amatol began to emerge, with a projected population of 10,000. The loading operation was designed to handle a variety of artillery shells: 75 mm, 4.6", 6", and 8". It also hoped to produce airplane drop bombs, as well as hand and rifle grenades. A fifty-mile rail line was built to facilitate movement of its products to New Jersey's ports. Shell loading began at the end of July, 1918, but stopped shortly after the Armistice. The town of Amatol disappeared; a few ruins may be found today deep in the woods.

The history of the T.A. Gillespie plant is brief and tragic. In 1915 Gillespie built a small powder plant in Sayreville, but soon sold it to Hercules Powder. Opportunities for shell loading brought Gillespie back in 1918: he created a new complex in the eastern or Morgan section of town. An ambitious enterprise, it consisted of 700 buildings on 2,200 acres, and included mixing

and storage buildings, shell loading plants, its own power plant, and barracks for the workers. Since the area was well served by rail lines, Gillespie attracted hundreds of workers from central Jersey and such seashore towns as Bradley Beach and Asbury Park. Completed shells could be moved by rail to North Jersey, or by barge to ships in Sandy Hook Bay. Production began on June 12, 1918, with a variety of outputs, including 155mm and 6” shells. By the end of September Gillespie was filling over 30,000 shells a day. But on the evening of October 8 fire broke out in an amatol mixing shed, quickly spreading to loading and storage buildings. Explosions followed – an estimated 300,000 shells went off – bringing death and destruction inside the complex, fear and panic outside. An accurate count of the dead was never made, but approximated one hundred workers. Coast Guard and Army personnel rushed to the scene to assist victims and restore order. Nearby residents fled to South Amboy, and then across the Raritan to Perth Amboy. The Red Cross and the residents of Perth Amboy rallied to care for hundreds of frightened men, women, and children, and provide them with food and shelter. Plans by Gillespie to rebuild were negated by the November Armistice. After the war Morgan became the site of a military storage facility, where war material was held after being shipped back from Europe.

Unlike the field of munitions, where the U.S. had a long history, the country entered 1917 with little in the way of an aircraft industry. In particular there was scant ability to design and manufacture the combat airplanes - pursuit, reconnaissance, bomber - being used extensively in Europe. Under great pressure to get involved, most American firms turned to European airplanes and airplane engines for their models. The emphasis was on producing two-seater training planes for U.S. and Canadian pilots, as well as engines to power these aircraft. General Pershing discouraged Americans from even getting into the combat plane business, saying that he would continue to rely on the British and French to supply aircraft for his pilots. Transportation problems

supported this view: Pershing's priority was shipping men and munitions.

The most famous training planes manufactured in the U.S. were the Curtiss JN series, the so-called Curtiss Jenny. Glenn Curtiss had been developing this two-seater biplane since 1915, and stepped up production in 1917. Since he had his own body plant in upper New York State, New Jersey companies went in other directions. Three of these firms were the Wright-Martin Aircraft Company, the Aeromarine Plane and Motor Company, and the Standard Aero Company. The Wright-Martin Company was formed in 1916 by the merger of the Wright Company- an investment firm which had bought out the interests of the Wright brothers- the Glenn L. Martin Company, and the Simplex Motor Company. Establishing a plant in New Brunswick, it focused on the production of Hispano-Suiza water-cooled V8 engines of 150 and 180hp. These engines, originally designed and made in Spain, were sturdy and reliable, and were being used in such airplanes as the French Nieuports and SPADs. In 1918, Wright-Martin had 2,732 employees in New Brunswick. Its engines were used in various types of planes, including the Curtiss JN-4H. Up to the time of the Armistice, Wright-Martin delivered more than three thousand engines for use in the Jenny. In 1914, Aeromarine opened a small experimental operation in Keyport, Monmouth County. It received U.S. Navy contracts to build seaplane trainers, and subsequently expanded its facilities to include a plant in Nutley, Essex County. In 1918 the Keyport complex had about five hundred employees, that in Nutley about two hundred. Its production emphasis remained seaplanes and flying boats for the Navy. The Standard Aero Company began manufacturing airplanes in Plainfield in 1916. Standard took over an automobile plant in Linden when its operations expanded. Standard made planes of different types, ranging from two-seater training planes to the huge Handley-Page bomber, a British design. As was the case with other airplane manufacturers, getting these planes to Europe to contribute to the war effort proved a major obstacle.

Probably no city in New Jersey was so involved in, or impacted by the Great War, as was Hoboken. Wedged on the Hudson River waterfront between Weehawken and Jersey City, it was a community of piers and ferry slips, railway terminals and factories. Seventy-five thousand people, including an estimated ten thousand born in Germany, crowded into this “mile square city” in 1914. Hoboken featured the first tunnel connecting New York and New Jersey, one of the Hudson Tubes, completed in 1906. Dozens of factories, mostly small and medium sized, produced everything from straw hats to funeral supplies. Its largest employers were W.A. Fletcher - marine engines and boilers; Keuffel and Esser - surveying and nautical instruments; and the Tietjen and Lang Dry Dock Company - renamed Todd Shipyards in 1916. The last counted over nine hundred employees in 1914. Hoboken was also the American home of the two principal German shipping lines, Hamburg-Amerika and Norddeutscher Lloyd. The impressive terminals of these two European giants were monuments to their success.

To say that Hoboken was a busy port is to understate. Through it came thousands of immigrants and countless tons of cargo. Its ocean liners carried other thousands on business trips and European vacations. At the outbreak of war, German vessels had the options of making a run back to Europe or staying holed up in Hoboken. Knowing the might of the British Navy and the strength of its blockade power, they chose the latter. One of the liners deciding on voluntary internment was the *Vaterland*, the largest and most luxurious passenger ship afloat. Hoboken’s other vessels, as long as they served the needs of the Allies, still had business aplenty. So, too, did its existing and newly established factories. Remington Arms, for example, started up a plant to manufacture artillery shell casings and small arms ammunition. By 1918 it had an estimated three thousand persons on its payroll.

Major German vessels remained interned in Hoboken. Since the U.S. was officially neutral,

1914-1917, their crews and terminal personnel had free rein of the city. Many men found jobs in or around the port, or just drifted off to other parts of the country. Post-war investigations suggested that the hold of the *Friedrich der Grosse* was used as a workshop to build incendiary devices - cigar bombs - to be hidden in Allied merchant ships and cause fires at sea. As the war continued and anti-German sentiment began to increase, the lives of these sailors - and of the city's German residents in general - became more and more uncomfortable. Nonetheless, the atmosphere remained relatively calm until April 6, 1917.

The U.S. government had already decided that Hoboken would be a major port of embarkation in time of war. Newport News, Virginia, was the other East Coast city. As soon as war was declared federal agents, backed by troops of the 22nd Infantry coming over from New York, seized the interned vessels and took control of all piers and buildings in the port area. The government agents discovered that the German crews had sabotaged their ships, concentrating on the engines and control systems. The men were quickly herded over to Ellis Island, where they remained under military guard. Sabotage meant that German passenger vessels couldn't function as troopships until repairs were made. These were typically handled by local mechanics, and the liners were then converted into troopships. The officers and men of the Army's 1st Division, who left Hoboken in June, 1917, thus went on other ships. Delays in sending troops overseas, however, were primarily caused by the necessity to get soldiers organized and trained. Shipments from Hoboken went out in fits and starts until late winter. Things then moved into high gear: 49,239 troops shipped out from all U.S. ports during February, 1918; 85,710 in March; 311,359 in July - the highest number.

The mood of Hoboken's residents turned decidedly hostile towards Germans and Germany once the nation went to war. Some firms fired their German workers. German culture, including

its music, went into deep freeze; German restaurants and beer gardens were shunned. However, all local bars and taverns suffered: the government forbade the sale and consumption of liquor within a half mile of the waterfront. In a preview of Prohibition - the 18th Amendment would go into effect in 1920 - thirsty soldiers, sailors, and citizens had to turn to underground sources for their liquid refreshments.

Once troops began to pour down from Camp Merritt, the public mood became upbeat again. Anti-German bigotry did continue, but attention now focused on the departing soldiers, their needs and wants. The winter of 1917-18 was bitter cold, and hanging around the docks waiting to go shipboard was far from pleasant. But the citizens of Hoboken - in what little free time they had - tried to bring some cheer to the men in uniform. Families held open houses and cooked meals for soldiers, especially at Thanksgiving and Christmas. Service organizations, such as the Red Cross, YMCA, Knights of Columbus, and Salvation Army, turned their halls into recreation centers. When the weather cooperated, the city fathers sponsored dances in city parks and on fenced-off streets. Young girls, singing patriotic songs, were enthusiastic and cooperative. When they were too cooperative police officers or self-appointed matrons escorted them home. A coterie of Transport Service women, complete with uniforms, helped out on the docks. Countless doughnuts and cups of coffee were provided for outgoing and incoming soldiers. Hoboken was a bustling city.

The early fall of 1918 brought change again. The influenza pandemic struck, filling hospitals and cemeteries. Troopships carrying caskets and litters appeared. Solemn services for the dead were held at the piers and in local churches. Then news of the November 11 Armistice led to wild and spontaneous celebrations. On December 12 Hoboken received its first returning veterans, numbering about two thousand. They didn't want to stay very long in Hoboken; many were

mustered out at Merritt and Dix and streamed homewards. Soon the mile square city began drifting back into its peacetime mode: the Great Crusade was over.

Chapter 5: The Adventurers

The young are often characterized by the spirit of adventure. So it was in the Great War. From its inception it was seen, especially by the well-to-do, as an opportunity for excitement. Working class youth, however, were just that - a working class. Their outlets were few: a Saturday night dance, a trip to the cinema, a dime novel. For those with wealth and leisure, two openings for adventure overseas involved the marvels of the age, the airplane and the automobile.

This was the early stage of military aviation. Orville Wright's historic flight at Kitty Hawk, North Carolina, had taken place little more than a decade before, in December, 1903. Service in the war quickly became attractive to American pilots and would-be pilots. They came primarily from families who could afford the costs of flight training and passage to Europe, and most joined England's Royal Flying Corps or France's Service Aeronautique. There were legal problems. The Expatriation Act of 1907 declared that anyone who swore allegiance to a foreign government could lose his/her citizenship. A favorite dodge was to join a volunteer ambulance outfit, such as the American Field Service, or the French Foreign Legion - one swore allegiance to the Legion, not the French Republic - and then transfer into the flying service. American pilots in France flew a variety of aircraft, in various units, on varying missions, mostly the reconnaissance of enemy trench and artillery positions. The glamorous job was fighter pilot, and the Americans were eager to get into that act. Pressure was put on French authorities to allow the formation of an all-American fighter squadron. After the typical bureaucratic delays an American Escadrille, i.e., squadron, was launched in April, 1916, with nine experienced pilots. The commander was French, Captain Georges Thenault, as were the ground crews. U.S. pilots were given appointments as non-

commissioned officers, again skirting the strictures of the 1907 law. Immortalized as the Lafayette Escadrille, it was an "escadrille de chasse" - a pursuit/fighter squadron. Formally the Escadrille was N214, the letter indicating its planes were French-built Nieuports. When it later received SPADs, again French-built, the Escadrille became S214. Insignia, painted on the side of each plane, was the profile of a Lakota Sioux Indian chief. Mascots, given extensive publicity by the American press, were two lion cubs: Whiskey and Soda.

The group began its patrols in the Verdun sector, then moved to other parts of the Western Front as needed. American entry into the war brought no immediate changes to the Escadrille's routine. The AEF initially had but a paper organization and no planes overseas. It was not until February, 1918, that S214's pilots became part of the U.S. Air Service as the 103rd Aero Squadron. Lieutenant Colonel William "Billy" Mitchell, placed in charge of the Service by General Pershing, developed a uniform organizational plan for pursuit squadrons. Each would consist of twenty-three officers and one hundred fifty enlisted men, utilizing eighteen aircraft broken down into flights of six planes each. "The basic plan was to assemble the pilots, who were trained - for the most part - by the Air Service in France; equip them with aircraft purchased - for the most part - from France; and add a standard aero squadron of enlisted men formed in the U.S."

What was the significance of the Escadrille? "First, its existence encouraged a large number of Americans, far more than needed in one escadrille, to volunteer for French aviation. These individuals, identified unofficially as members of a Lafayette Flying Corps, served in numerous French air units. Second, the publicity surrounding the Lafayette Escadrille contributed favorable press for the Allied cause, strengthening ties between France and the U.S. and ultimately helped prepare the U.S. to participate on the Allied side of the conflict. Third, the existence of a large body of experienced pilots provided combat veterans for the Air Service of the American

Expeditionary Force in France when the U.S. ultimately entered the war.”

Thirty-eight Americans served with the Escadrille; 271 others in the Lafayette Flying Corps. One New Jerseyan was a pilot in the Escadrille: Ronald Wood Hoskier from Orange. Following a familiar path, Hoskier left Harvard in February, 1916, to join an ambulance corps. He transferred to the Foreign Legion and in December joined the Escadrille. He was killed on April 23, 1917. Seven men from New Jersey were members of the Lafayette Flying Corps. One was Nutley's Stuart Edgar. He left Cornell in October, 1916, to become a driver in the Norton-Harjes volunteer ambulance unit. He then became a member of the Lafayette Flying Corps, later transferring into the U.S. Air Service. He was killed on August 17, 1918.

Although fighting with the French attracted media attention and public adulation, many young American flyers opted for service with the Royal Flying Corps or the Royal Naval Air Service. The two were combined into the Royal Air Force, RAF, on April 1, 1918. Among the U.S. pilots were five New Jerseyans who achieved “ace” status through five or more combat victories. Two New Jersey members of the U.S. Air Service also became aces. Their names and records are in Appendix B (available in the full version of the book excerpted here).

The other machine fascinating the young was the automobile. Although transportation on the Western Front depended primarily on horses and mules, the use of automobiles and trucks (camions) increased as the demand for supplies, ammunition, and replacement troops escalated. Removing the wounded also was a major problem; the motorized ambulance became part of the solution. Stretcher bearers did the initial work, moving soldiers to aid stations close by the trenches. If roads were passable - and often they were not - an ambulance, horse-drawn or motorized, brought the wounded to triage posts and then to rail heads or evacuation hospitals. Bringing the wounded from train to hospital or hospital ship, or from hospital to hospital, became almost

exclusively a task for the automobile and its driver.

The position of ambulance driver had great appeal to the American college and prep school elite - the same group from which the Escadrille drew its members. Harvard, Yale, Princeton, Cornell: these were major sources of recruits. Assistance to the French Army was the key role; the British generally went their own way. Most American volunteers worked for one of two organizations - Norton-Harjes or the American Field Service. The former was a 1916 amalgamation of two existing units, one led by Richard Norton, a Harvard educated archaeologist, the other by H. Herman Harjes, the young senior partner of the Morgan-Harjes bank in Paris. The group worked in collaboration with the American Red Cross. The American Field Service evolved from volunteer drivers organized by A. Piatt Andrew, Princeton educated former Director of the U.S. Mint, to help hospitals in and around Paris. Eventually these daring young men in their primitive machines worked as close to the front lines as they could.

The experiences of the volunteers working the front were profoundly complex and contradictory. In a single day they witnessed the worst the war had to offer: the wounded, maimed and lifeless soldiers, or bits of soldiers, at the front. That same day, however, they also might see the verdant countryside and elegant chateaux of La Belle France lining the unscathed roads leading back to the base hospitals beyond the reach of artillery. They heard the screams and pleas of “*doucement!*” (“slow down!”) from *les blesses* (the wounded) being jostled around in the back of their ambulances, which they nevertheless drove full speed through the pitch-black night with lights off, over roads pocked by shells and littered by blasted debris and the fetid carcasses of horses, in order to get to a hospital before the screaming *blesses* became *les mortes*.

Their favorite machine was the reliable Ford “Model T,” assembled in France with parts shipped from American factories. Securing funds to buy these autos was a continuing problem.

The American Field Service, with agents in the States working through such wealthy families as the Morgans and the Vanderbilts, was the more successful operation. By the time the U.S. entered the war in 1917, the AFS had more than one thousand ambulance drivers, Norton-Harjes about two hundred. In October, 1917, the U.S. Army took control of both organizations, folding them into the U.S. Army Ambulance Service. Not all men joined this corps; many opted for service in other units of the Army.

One of the more colorful characters in the Great War was Arthur Guy Empey. Born in Utah in 1883, he joined the U.S. Cavalry and served for six years, becoming an expert horseman and marksman. In 1915 Empey was in Jersey City, working as a recruiter for the New Jersey National Guard, when he was bitten by the adventure bug. He traveled to London and joined the British Army, received basic training and was sent to the front lines in France. Reflecting later on his first wet, cold night: "My ambition had been attained! I was in a front-line trench on the Western Front, and oh, how I wished I were back in Jersey City." Empey was wounded twice, the second time during a raid on an enemy trench in the Battle of the Somme. Evacuated to England, he spent four months recuperating at the American Women's War Hospital. Empey received his discharge from the Army and soon returned to the States. In 1917 he wrote a book about his experiences, containing substantial detail on trench life. Titled "Over the Top," it was an immediate hit, selling an estimated one-quarter million copies. A film with the same name was released in 1918, with Empey as the star. A second book, "First Call," was published that same year. He also toured extensively to promote Liberty Bond sales. After the war Empey went to Hollywood and set up his own movie production firm. His desire for a sustained movie career did not pan out: the financial resources required to make the transition from silent to sound just weren't there. Empey's last picture, 1930's "Troopers Three" again depicted life on the Western Front. During these years

he continued writing, with novels featuring the exploits of one “Terence X. O’Leary” during the Great War. Empey’s last fling at the limelight came in the mid-1930’s when he organized an anti-Communist para-military force, the “Hollywood Hussars.” The nation was in an anti-war, isolationist mood at the time, and the project did not survive for long. Empey worked in the San Diego Navy Yard during World War II. He died in a Kansas Veterans Hospital in 1963.

Lady adventuresses were also anxious to go to Europe. Like their male counterparts, women volunteers were drawn primarily from the well-to-do and well-educated Eastern elite. Many had vacationed on the continent before the war; they also had at least a passing acquaintance with the French language. Only a small number of families could afford to send their daughters to Europe, and support them while there. As volunteers, the ladies carried out a variety of tasks, including working at canteens and hospitals, driving ambulances and small trucks (camions.) Their numbers were small until America entered the war in 1917. The Red Cross, Salvation Army, YWCA, and other organizations were then flooded with patriotic recruits.

A major need: nurses. In the late spring of 1917, Army nurses began to cross the Atlantic for tours in England and France. (Prior to 1917, American nurses working abroad were usually associated with the Red Cross. Many of these now enlisted in the Army or Navy.) They served base hospitals in England, evacuation and base hospitals in France. As with other components of the military, the Army Nurse Corps was a tiny operation at the start of 1917. There were only 403 members, and the Army did not have a nursing school. The next two years witnessed explosive growth, with the ANC’s total reaching 21,480 by the Armistice. An Army School of Nursing was authorized on May 25, 1918. The first Dean was Annie W. Goodrich, born in New Brunswick and a graduate of the New York Hospital nursing school. As indicated, Army nurses typically worked in hospital settings. When part of a specialized medical team, such as a group handling orthopedic

cases, they did function close to the front lines and experienced their dangers. Three Army nurses were awarded the Distinguished Service Cross, three others the Citation Star. The latter was renamed the Silver Star - the Army's second highest decoration - in 1932.

In addition to nurses, the AEF was in dire need of telephone operators fluent in the French language. General Pershing made an impassioned plea for help in this area, realizing his problems communicating with the French military and government. The Army Signal Corps responded by creating the "Female Telephone Operators Unit" in 1917. Thousands of ladies answered the call; 450 were chosen for training. These "hello girls," as they were referred to in the media, began sailing to France and England in March, 1918. They worked in Paris, Chaumont, and seventy-five other French locations, as well as in England. The unit's Chief Operator, Grace Banker, was awarded the Distinguished Service Medal by the Army.

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