

SONS OF MARTHA (Construction of the City of Old Hickory)

By Dixon Merritt

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Editor's Note:

This article is from a chapter in a book published in 1928 by the Mason & Hanger Company. The book describes the 100-year history of the company that built Old Hickory in 1918 in a period of eight months and a day. The company was the major contractor selected by the U. S. Government to construct the world's largest smokeless powder plant to support the Allies during World War I.

This chapter, entitled "Old Hickory", describes the massive requirements of labor and material used to build the manufacturing plant and all of the supporting structures and facilities that became Old Hickory.

Chapter XVII

Old Hickory

When the United States declared war on Germany, there were not in this country any facilities whatever for manufacturing powder in the enormous quantities that would be necessary in order to prosecute the war energetically to a successful conclusion. It became immediately evident that the erection of a number of large powder manufacturing plants would be necessary. The locating of suitable sites and other preliminary work was begun at once, but the United States had been a party to the war for almost a year before construction work was actually begun on the largest of them.

The site for this plant, designed to be the largest smokeless powder manufacturing establishment in the world, was in Hadley's Bend of the Cumberland River, in Davidson County, Tennessee, about eighteen miles northeast of Nashville. It was reached, indirectly, from two main roads but not directly by any. To the south of it, on the right bank of the Cumberland, was the Lebanon Pike--the old main road from Nashville to the East--, but the great bend in the river left a gap of seven miles or so between this road and the site of the plant. To the north of it, on the left bank of the Cumberland, ran the Gallatin Pike--the old Louisville and Nashville Turnpike--hardly more than a stone's throw from the site of the plant but with the unbridged river between.

This very quality of isolation was one of the principal considerations in the selection of that site as the location of the greatest of all powder plants. Hundreds of miles from the seaboard, practically surrounded by the Cumberland River and thus thoroughly protected, with easy access to the abundance of water needed both for construction and for operation, sufficiently far removed from any city or town to obviate the danger of exposing large populations to explosions, near enough to the coal fields of Tennessee and Kentucky to insure an ample and easily secured supply of fuel, it was almost an ideal location for so mammoth a manufactory of explosives.

The country round about had been, a hundred years before, the home community of Andrew Jackson. Not far away his ashes lie in the garden of his mansion, The Hermitage, a national shrine more beautiful and impressive, in some respects, than Mount Vernon. The plant, and the new city of which it was the center and life, was to take its official name that which was the

nickname of the intrepid old warrior--Old Hickory. Perhaps, too, those who carried the enterprise through were to absorb from the surroundings something of the boundless energy and indomitable courage of Jackson. Something of the sort undoubtedly inspired them.

On March 10, 1918, Hadley's Bend was a little neighborhood of half a score of farms--a sedate, slow-moving, old-fashioned and somewhat aristocratic cluster of country families. On November 11 of that year, the day of the signing of the Armistice, Hadley's Bend became the manufacturing city of Old Hickory, capable of housing and caring for a population of a hundred thousand, and with a plant which, though nowhere complete, was turning out 500,000 pounds of powder a day. Plant, city, railroad, highways and streets, water system, what not--all had been constructed in the period of eight months and a day.

Though fought a fourth of the distance around the world from the front line trenches, the building of Old Hickory was one of the greatest battles of the World War. Perhaps it was the battle which broke the spirit of Germany, sent William Holenzollern scurrying to exile across the Dutch border, ended the war months before it would have ended otherwise and saved multiplied thousands of lives. It proved, what the German had never until that time believed, that America could in a time incredibly short prepare for warfare on a scale that Germany's forty years of preparation never had approached.

The credit belongs, of course, to the American Government, the American people, the spirit of America at war. But the chief instruments in accomplishing the result were the DuPont Engineering Company, as agent of the Government, and the Mason & Hanger Company, as the largest of the sub-contractors. In order that the reader may appreciate the importance and the colossal proportions of those results, the main features of achievement must be set forth in detail.

The first thing to be done, of course, was to secure as quickly as possible an adequate supply of both common and skilled labor, as well as mechanics in almost every trade.

The Employment Department began operation on Sunday, February 10. By the following Saturday, the first pay day, 1,178 laborers were on the job. During the second week it was found that labor was being recruited faster than the work was developing. It must be remembered that many other war projects were in progress all over the country, that the demand for labor was unprecedented, and yet within fourteen days this department was forging ahead of the construction requirements. Throughout the time that the work was in progress seventy-five per cent of all labor was recruited by the Employment Department of the Mason & Hanger Company with an organization which numbered only forty-six at its maximum strength. Of this number, seven acted as labor scouts, recruiting workers in Texas, Mississippi, Georgia, Louisiana, Alabama, Arkansas, Kentucky, Tennessee and Indiana. All in all, about 100,000 men were recruited from these States.

The mere signing of the men was but a small part of the task of putting them to work at Hadley's Bend. After they were signed up they were transported to Nashville, provided with subsistence en route, met at the trains and escorted to the main employment office at 831 8th Avenue North. Here a complete record of each man was taken, showing full name, permanent address and various other details. Men arriving late in the evening were quartered for the night in Nashville and the following morning were sent to the works, first on trucks and later, when the necessary railroad tracks had been constructed, on labor trains. At the employment office at the works each man presented his employment card showing the kind of work for which he had been employed. There was then issued to him an authorization card on which he secured his pay check card. He was then assigned to quarters, provided with a meal-book and finally sent to the proper superintendent who put him to work.

On July 1, the United States Department of Labor assumed supervision of the distribution of labor among the various war projects in course of construction. Private recruiting was therefore

ended.

The Mason & Hanger Company organized a pay-roll and time-keeping department which began operation simultaneously with the employment department. For the sake of economy, however, these departments were shortly consolidated with similar ones of the DuPont Engineering Company. In the consolidation the head of Mason & Hanger's pay-roll department was made assistant pay-master for the entire operation, and the head of their time-keeping department became chief outside time-keeper. At the time of the consolidation, the Mason & Hanger Company had on its payrolls 7,600 men, 436 teams, 40 trucks and 18 saddle-horses.

Before real progress could be made at the plant site it was necessary to construct a railroad, but before even that could be done the country roads between the Lebanon turnpike and the site had to be macadamized in order that heavy trucks could deliver materials and men. The existing country road from the Lebanon pike at a point near the Confederate Soldier's Home was widened and heavily macadamized to the site of the plant, a distance of about five and one half miles. Over this road by truck, over the Gallatin pike by way of the ferry and up the river in barges came the first materials used at Old Hickory. Meanwhile, the construction of a railroad was being rushed. Knowing that such an emergency would arise, officers of the Nashville, Chattanooga & St. Louis Railway had caused a survey to be made for a road connecting with their tracks and with the Tennessee Central Railroad tracks near Hermitage Station. This provided for a railroad a little over seven miles long into the plant reservation.

Speed in construction was of paramount importance. Construction was begun on February 10. Exactly thirty day later trains were running over the line. the work had involved moving 50,860 cubic yards of earth, 11,560 cubic yards of solid rock and 29,780 cubic yards of earth borrow; 10 acres of the right of way were cleared of trees and stumps, 624 lineal feet of pipe culvert were laid and 315 cubic yards of foundation excavation were moved. Thus was established a world's speed record in railroad construction.

After the first line of railroad was completed and was carrying hundreds of cars of material and thousands of laborers daily, construction of the second track was begun. Two interchange yards were constructed near the crossing of Stoner Creek, with some 16,000 feet of track. Much other grading and track laying was necessary both inside and outside of the plant area, involving the moving of about 2,500,000 cubic yards of earth. After the first track was laid there was not the same necessity for speed, but the entire work was done in record time. In less than five months there was constructed and ready for operation a double track line of railroad seven and one half miles long, over rough country, crossing one stream with a steel bridge and several trestles.



The Old Hickory Powder Plant, if the conclusion of the war had not prevented its completion, would have given employment to 25,000 men. In that remote location it was necessary to construct not merely the plant but houses in which these workmen with their families would live. In short, it was necessary to build the physical part of the city of something like 100,000

population. Not merely must residences and other buildings be constructed, but they must be provided with water, lights, sewerage, sidewalks, streets, all of the conveniences of a modern city, and the whole gigantic task must be carried to completion in the shortest possible time.

Mason & Hanger Company built a city of 2,500 buildings to house and care for the workers

in the plant. An adequate idea of the completeness of this preparation can be best given by listing the number and kinds of houses constructed:

- 348 supervisors' houses;
- 1,125 six-room bungalows;
- 167 two-story block apartments of six apartments each;
- 84 one-story block apartments of six apartments each;
- 76 bunk houses of 24 rooms each;
- 208 bunk houses of 6 rooms each;
- 17 bachelors' quarters;
- 9 women's dormitories;
- 10 women's lodges;
- 41 toilet and wash houses;
- 2 hotels (capacity of 400 each);
- 2 dining halls for hotels;
- 1 white Y.M.C.A.;
- 1 negro Y.M.C.A.;
- 1 Y.M.C.A.;
- 1 family Y.M.C.A.;
- 4 schools of 24 rooms each;
- 1 school of 12 rooms;
- 1 grand kitchen;
- 5 Virginia mess halls;
- 5 Jersey mess halls;
- 3 short order restaurants;
- 1 large retail commissary;
- 1 small commissary storeroom;
- 2 small retail commissaries;
- 1 bank;
- 1 post office;
- 1 bakery;
- 2 drug stores;
- 2 shoe and tailor shops;
- 2 bread and baker shops;
- 2 mattress sterilizer buildings;
- 2 quartermaster's office store and shop;
- 1 women's cafeteria;
- 1 passenger depot;
- 1 freight and express depot;
- 1 passenger umbrella shed;
- 282 fuel houses for the six-room bungalows;
- 1,506 fuel boxes for apartment buildings;
- 124 portable fuel houses for the supervisors' houses;
- 1 fire department headquarters;
- 20 hose reel houses;
- 2 sewerage pumping stations;
- 1 village heating plant building;
- 1 women's employment building;
- 6 combination rest and toilet rooms;
- 9 community garages of 28 car capacity each;
- 1 large quartermaster's warehouse;
- 1 refrigerating machinery house;
- 3 ladies' rest rooms;
- 1 official women's boarding house;
- 1 passenger platform;
- 1 searchlight tower;
- 1 camp office building;
- 1 disbursing officer's building;
- 1 ice house;
- 1 village pumping station;
- 1 office for the sanitary department;
- 1 open mess hall; and
- 21 supervisors' garages.

In addition to the buildings above listed, other miscellaneous structures were erected such as boiler houses, commissary in the Mexican Village, pay check booths, pay check banks, pay booths, stables, where hundreds of horses and mules were sheltered, employment barracks, employment receiving houses,



and outhouses for workmen, of which about 1,200 were built, sheds, etc. The majority of the buildings above referred to were located in the Camp and Village Area, but the Mason & Hanger Company also erected a number of the plant buildings, located in the Plant Area, such as air dry houses, solvent recovery houses, change houses, shipping houses, office of mechanical department, etc. The buildings last mentioned in the plant area were all heavy frame structures lined with galvanized iron, and many of them had concrete foundations while the buildings in the village were all frame structures, built of number one yellow pine, with the exception of a few which were built of brick.

On November 18, 1918, when the work in the village was virtually at a standstill, on account of the signing of the Armistice on the 11th, about 85,030,031 board feet of lumber, wall board and Cronolite had been laid in the village at the average rate of 277 board feet per carpenter, which performance established a world's record, when considering the many types of houses erected, all of which were of a substantial character, while many of them had claims to pretentiousness. And on the day above mentioned, the erection of the buildings in the camp and village area was 99.81 per cent completed and only about 165,360 board feet of lumber were required to be erected in order fully to complete all the structures which had been authorized.

But between September 10 and September 13, both inclusive, when a special drive was made to see how much could be accomplished in a day in the matter of house erection, was there a record made which perhaps will never be equaled again, as indicated by the following figures:

Date	Bd. ft. erected	Av. per man	Av. to date	No. of men
Sept. 10	1,007,111	306	266	3,561
Sept. 11	1,004,922	320	268	3,641
Sept. 12	1,007,627	281	271	3,462
Sept. 13	1,001,021	325	275	3,563

There was a day, however, previous to the dates above mentioned, when the average per carpenter per day reached as high as 280 board feet.

Another instance of remarkably speedy construction was the erection of a two-story block apartment building in twenty-nine and one half hours, and a six-room bungalow in nine hours, both complete and ready for occupancy. The apartment building consisted of six apartments of six room each, lined on the inside with wall board and covered on the outside with Cronolite, and each apartment was equipped with up-to-date plumbing and fixtures, as well as with electric lights. The excavation for the foundation was started on September 4, at 7:30 in the morning. At 9:30 the same morning the first floor was framed and the concrete work for the chimney foundations was begun. At 11:00 that same morning the concrete foundations for the chimneys were finished and in the meantime the framing for the second story was completed. At 6:00 that evening the rafters were in place, ready for the sheeting, and the walls had been boxed half way up. In the second day at 8:30 in the morning the brick work for the six chimneys was begun and completed by 11:30 the same morning, and the whole structure was ready for occupancy, including the installation of plumbing fixtures, electrical fixtures and painting and screening throughout, in just twenty-nine and one half hours. This building required 105,974 board feet of lumber and 11,666 bricks for the chimneys. Ninety doors and 88 windows were hung and necessary frames made.

The six-room bungalow was completed in just nine hours on September 6, including the installation of plumbing and electrical fixtures and painting and screening throughout. This building consisted of six rooms, all of which were lined with wallboard, while the sides and the

roof were covered with Cronolite. The bathroom and kitchen were equipped with modern fixtures for hot and cold water. For this house, 22,450 board feet of lumber were required, while eight doors and thirteen windows were hung and the necessary frames were made.

The work on these two houses did not in the least interfere with the work the house building department in the village where about 5,000 men were then at work erecting an average of 270 board feet per carpenter per day, and even more. During this period the men were allowed to leave their work in groups of from ten to fifteen to register under the Selective Service Law.

The adaptability as well as the flexibility of the house building department was demonstrated, for, in the erection of these two houses, the cooperation of the other unit superintendents was pressed into the service in the matter of furnishing materials and labor.

In order to erect quickly the great number of houses needed, a working organization was effected by dividing the camp and village area into units, each of which was headed by a unit superintendent with the necessary number of assistants, such as boss carpenters, carpenters, foremen, carpenters' clerks, saw filers, laborers, depending upon the number and character of buildings composing the unit. The normal unit was of about 200 men.

One of the knottiest problems in the construction of a city in so short a time was encountered in keeping the supply of raw materials moving in as rapidly as they were needed. A transportation department was organized with the duty of unloading cars as they came in and of distributing the material by means of trucks and teams to the places where it was to be used.

The first unloading of materials from cars was done on February 11, at Hermitage Station on the Tennessee Central Railroad. The next was at the same station but from a siding on the Nashville, Chattanooga & St. Louis Railway. When something over four miles of the first line of railroad was completed, an unloading track was laid at that point and materials unloaded there in order to shorten the haul. When the first line of railroad reached the plant reservation, a centrally located warehouse was built. As construction in the village progressed over a wider area other unloading tracks were laid. The lumber was unloaded from cars in three separate yards from which it was distributed as called for.

Superintendents of distribution were provided with complete bills for material required for each structure to have all necessary materials on hand when needed. To avoid delay and keep in advance of construction, the distribution of materials began as soon as the location of a structure was indicated by stakes in the ground. At the central warehouse were stored materials other than lumber, such as nails, hardware, cement and tools, while paints, plumbing, heating materials and the like were distributed from other warehouses. During the early stages of the work all door and window frames and mill-work generally were turned out by mills in Nashville. Later, as a measure of both speed and economy, a complete planing mill plant was purchased and installed on the reservation. There was installed also a complete sheet metal mill for making the great quantity of tinwork required.

The following list of the number and character of carloads handled by the Mason & Hanger Company's transportation department constitutes another index to the proportions of the work:

- lumber, 3,973;
- stone, 2,402;
- sand, 1,182;
- slag and gravel, 2,616;
- contractor's outfit, 261;
- equipment, 196;
- sewer pipe, 402;
- merchandise in less than car load lots, 217;
- iron pipe and plumbing material, 183;
- wall board, 140;
- rails, 163;
- roofing, 151;
- nails, 30;
- galvanized iron culvert pipe, 31;

- ice, 558;
- brick, 383;
- coal, 311;
- cement, 290;
- ties, 210;
- hay, 45;
- sash and doors, 138
- plumbing fixtures, 106;
- lime, 21;
- total, 13,509.

In addition to these cars consigned to the Mason & Hanger Company the transportation department unloaded hundreds of cars consigned to the DuPont Engineering Company. Perhaps as high a tribute as can be paid to the efficiency of the organization is to recite the fact that in all this rush of shipment only two cars failed to reach their proper destination promptly.

The transportation department employed on the average about 200 men--clerks, team and truck drivers, lumber checkers. It used from 65 to 70 trucks varying from two to five tons in capacity, and from 75 to 80 teams.

Construction work on the water supply and sewerage system was begun on May 18, and was 99.5 per cent completed on the day that the Armistice was signed. The water supply system included 22.43 miles of pipes with 227 fire hydrants. During the early stages temporary water lines were laid for both construction and drinking purposes. Pumps were installed at springs on the reservation to provide a temporary supply. For the permanent system water was secured from the Cumberland River from which it was brought in through a filter plant.

The sewerage system comprised 50.5 miles of pipe with 543 man-holes. The work of laying pipes began March 28. The system was in operation, completed except for the backfilling of a few ditches, when the Armistice was signed. On account of differences in levels two sewerage pumping stations were required. The sewerage was carried through an Imhoff septic tank in the lowlands west of the village. In the construction of the sewerage ditches both trenching machines and backfillers were used, though as in the case of water lines it was necessary to excavate and backfill certain of the sewerage ditches by hand.

In addition to the sewer plant in the village the Mason & Hanger Company laid 10.34 miles of sewer or acid lines in the plant area. The main concrete work done by the concrete department of the Mason & Hanger Company consisted of the following jobs:

1. Concrete roads in both the plant and village area.
2. Foundation, including the hand excavations for buildings in the gun cotton area, such as for the wringer houses, poacher houses, boiling tip houses, etc.
3. Scattered concrete work in the powder area, including excavation and brick work, and also assistance rendered the DuPont Engineering Company on some pipe work which they were building.
4. Concrete piers at the Stoner Creek bridge, including coffer dams and the trestles' approaches.
5. Concrete for the tower foundations and counterweights for the suspension bridge for the Cumberland River at Edenwold, and including the long trestle approaches at both ends as well as the 800 foot platform adjacent to the tracks of the Louisville and Nashville R. R. Company at that point.
6. Coal and sulphur trestles numbers 1 and 2, the former being about 1,200 feet in length while the latter was 1,000 feet in length.
7. The sewerage disposal settling tank heretofore mentioned as the Imhoff Tank, and for which about 200 cubic yards of reinforcing concrete were laid.

8. Foundations for buildings in the camp and village area, such as the village reservoir, sewerage pumping station, village heating plant, etc.
9. Miscellaneous jobs in the camp and village area, such as the village reservoir, tennis courts, foundations for tanks and machinery, concrete work in the wash rooms of various buildings, and in the wash houses, as well as for the wash rooms of the one story block apartment buildings, etc.
10. Foundations for buildings in the proving grounds.

The total yardage of concrete poured aggregated about 56,588 cubic yards, sub-divided about as follows:

- concrete roads in the plant, 7,827;
- concrete roads in the village, 8,460;
- concrete in the gun cotton area, 17,626;
- concrete in the powder area, 8,031;
- concrete in the village area, 11,896;
- piers at the Stoner Creek bridge, 580;
- for the suspension bridge, 1,800.

Work on the installation of the heating equipment was begun on July 25. The very comprehensive system adopted provided for steam heat in 456 buildings and warm air heat in 100 of supervisors' houses. The work included also the installation of heating stoves in about 100 residences, kitchen equipment in forty-five dining halls, and bake ovens in three buildings, twenty-three steam boilers of varying sizes and sprinkler systems for fire protection in the retail commissary and the commissary storehouse. About 600 sprinklers were used in the two buildings.

The installation of plumbing and fixtures included the placing of 15,832 fixtures in 1,930 buildings.

Though the construction of macadam roads was the first work undertaken, road work continued throughout the entire period. A large part of the original road from the Lebanon Pike to the reservation was later rebuilt in order to eliminate dangerous grade crossings. The existing farm roads within the plant area were repaired to meet requirements until the concrete and cinder roads were completed. Many stretches of temporary road were constructed.

Stone was secured from various sources nearest the work in progress. At the outset, Lightman's Quarry, located on the road to Nashville, was leased. It was in poor operating condition but was overhauled and additional equipment was installed. The output from this quarry was first utilized for railroad ballast and later for both concrete and road material. From Lightman's Quarry 1,252 cars of stone were shipped by rail.

When the progress of road work demanded it, four rock crushers were installed on various parts of the reservation where stone could be secured nearest the work under way. Later, when the haul became too long, all but one of these crushers were shut down.

Still later a lease was secured on the Ezell Quarry on the tracks of the N. C. & St. L. Railway at Newsom Station. For a long period both Lightman's and Ezell's quarries were operated day and night. The records show 2,402 carloads of stone but this does not include the output of the four crushers on the reservation.

In order that the executives might be fully advised every day as to the status of the work of each construction department a progress organization was effected with the duty of reporting

every afternoon what per cent of the work had been accomplished that day and what per cent of the whole was completed to date.

Throughout the entire period it was of paramount importance that materials be delivered as soon as possible after they were ordered. An officer with the designation of material urger was appointed, given a staff of assistants and assigned the duty of getting all shipments to the work without delay. Field urgers visited the factories with which orders had been placed and frequently stayed there until the materials were shipped. As illustrating the zeal of this department it was said that the urger frequently reached a factory before the order did. In view of the fact that many other projects were in course of construction all over the country and that demand for materials was unprecedented, it is remarkable that the Mason & Hanger Company urgerial organization invariably kept materials in advance of construction requirements. The force employed by the Mason & Hanger Company reached its maximum on September 14, approximately two months before the Armistice. On that day the classification of men and equipment employed was as follows:

- laborers, 3,871;
- first class carpenters, 4,436;
- second class carpenters, 594;
- plumbers, 210;
- plumbers' helpers, 142;
- electricians, 52;
- electricians' helpers, 46;
- all other men, including general office, 1,323;
- teams, 882;
- trucks, 76;
- saddle horses, 249;
- equipment, 355.

The Mexican Village

At that time there were living on the reservation 1,400 Mexicans. Not all of them, however, were laborers. Many were women and children, as a considerable portion of the Mexican laborers brought their families with them.

A three division segregation was necessary: the white laborers, the Negroes, the Mexicans. The quarters of this last group came to be known as the Mexican Village. It consisted of bunk houses for both the bachelors and married men with their families, bath houses, commissary, barber shop, club room. With the Mexicans were about fifty Nacajo Indians and a number of Porto Ricans.

The Mexican Village was operated under the supervision of the Mason & Hanger Company. Every effort was made to take the best possible care of these people, far from their homes, among surroundings utterly strange to them. There was appointed a superintendent for the village--a man who had previously lived and worked among Mexicans. A Mexican who spoke both Spanish and English was detailed to assist him. A commissary was built and operated especially for the Mexicans and the women of that nationality were encouraged to conduct boarding tables where the Mexican laborers could enjoy cooking of the kind which they knew and appreciated. Residents of the village were encouraged to gather at the club house in the evenings for native games, dancing and other social diversions.

During the epidemic of the Spanish influenza the Mexicans were hard hit. The death rate undoubtedly would have been very high but for the effective measures taken. A hospital was set up in the village with an adequate number of doctors and nurses constantly in attendance. Though many serious cases of influenza developed, comparatively few deaths occurred. A Spanish Priest was secured and for about a month during the period of sickness and fear of the disease lived among the Mexicans and ministered to their needs.

Though there were among the Mexicans a few carpenters, plumbers, electricians and the like, most of them served as laborers, the capacity in which there was the greatest need. As a rule, they gave excellent service. The help which Mexico thus gave to the United States in the period of its critical need has perhaps never been generally recognized. While American boys were forced to go overseas the places of many of them in the necessary war work at home were taken by Mexicans. because of this and the further fact that they were away from their native land the Mexicans received more consideration than would have been their lot under different circumstances.

Thus was the greatest of the government's war time construction enterprise pushed toward completion. Speed was the supreme desideration. Economy of money can be practiced in the humdrum days of peace, but in the clamor and clang of a world at war it is only economy of time that counts. As some wag--or philosopher according as one may view him--expressed it in homely language, "When your house is afire, you don't stop to dicker with a boy what he is going to charge for carrying water," so it was on all on the war time enterprises. Perhaps it was most so at Old Hickory and yet it was officially said of this project that the United States Government received a higher value for the expenditure involved than it did on any of the other war projects concluded.

The personnel of the organization which accomplished these results is, of course, entitled to its large share of the credit. The chiefs of that organization were:

- Silas Mason, treasurer and executive head;
- T. H. Coleman, general superintendent;
- J. B. Lindsey, chief engineer;
- H. A. Washington, office engineer;
- A. S. Adams, field engineer;
- E. D. Geoghegan, auditor;
- W. C. Cawthon, assistant auditor;
- W. P. Gilkenson, purchasing agent;
- W. A. Robinson, assistant purchasing agent;
- W. M. Whittemore, traffic manager;
- Spencer Aiken, material urger;
- C. B. White, chief draftsman and progress engineer;
- Joe Stroud, material clerk;
- W. E. Crain, force report clerk;

Field Organization:

- I. T. Rodes, superintendent of employment department;
- H. T. Carmichael, superintendent of grading and railroad work;
- E. R. Keller, superintendent of grading;

- J. I. Wilson, superintendent of hauling unit;
- H. H. Snyder, superintendent of buildings;
- R. G. Price, superintendent of macadam road construction;
- G. L. Shore, superintendent of concrete construction;
- H. Jenkins, superintendent of distribution;
- Leander Marx, superintendent of plumbing work;
- R. D. Blanton, superintendent of sewer & water lines;
- R. K. Coffin, superintendent of heating work; and
- J. T. Griffin, superintendent of electrical work.

Came the day when the world went wild with the joy of peace restored. It was November 11, 1918. From that day the Mason & Hanger Company began a gradual reduction of its forces with a view of winding up its affairs at Old Hickory. By December 14 there remained on duty only the auditor, his assistants and a force of accountants and clerks to settle the few accounts outstanding and to handle such new matters as might materialize. The other thousands of men who constituted the mighty and all but matchless organization had received their discharge in that war.