

Tailoring for an Army, Schuylkill Arsenal Philadelphia, Pennsylvania  
1861  
Neal Thomas Hurst

On the eve of the 19<sup>th</sup> Century, the newly formed American Republic found itself in need of supplying its infantile army. In 1799 a parcel of property totaling 8 acres, 2 roods, and 16 perches, that was bordered by the Schuylkill River to the east and Grey's Ferry Road to the west was purchased for this purpose in Philadelphia, Pennsylvania for \$2,293.33.<sup>1</sup> In 1800 construction began. Two years into the project it was reported to Congress that the cost up to that point was \$152,608.02<sup>2</sup>; it would take another four years to finish the complex. Once completed the four, three story brick buildings used chiefly as storage formed a hollow square that would be known variously as The Gray's Ferry Arsenal, the United States Arsenal, and commonly as the Schuylkill Arsenal.<sup>3</sup>

The Schuylkill Arsenal's great workshops and storage facilities took care of all the comforts of the soldier from bedding, stockings, camp equipage, blankets, and uniforms. By the time of the American Civil War, her industrial might clothed every soldier in the United States Army from the War of 1812 through the Mexican War. The arsenal not only saw to the comforts of the soldier but created an economic work base. The backbone of the arsenal's workforce was the women of Philadelphia. Employing thousands seamstresses throughout the Civil War, they will stitch alone over 1 million Sack Coats.<sup>4</sup>

With a call to arms of 75,000 men in 1861, the arsenal became a bustling place. Many Philadelphians had no concept of the magnitude of this military installation let alone the volume it stored. On June 12<sup>th</sup> 1861 several members of the Philadelphia Inquirer toured the facility and reported back the happenings within the structures. The following is an exact transcription of the article:<sup>5</sup>



FIG 1

### The Gray's Ferry Arsenal.

DESCRIPTION OF THE STRUCTURE-THE COMMANDING OFFICER-MANUFACTURE OF ARMY CLOTHING-THE FORWARDING ROOM-SHIPMENTS TO FEDERAL TROOPS-EIGHTY THOUSAND CANTEENS-HOW CLOTHING IS PREPARED FOR TRANSPORTATION, ETC., ETC., ETC.

The United States Arsenal, (or "Schuylkill Arsenal," as it is called by the Government) is, as most of our readers are aware, situated on the Gray's Ferry road, about a fourth of a mile below the Naval Asylum, and but a short distance this side of Gray's Ferry Bridge. The public, however, are not so well acquainted with the magnitude of the establishment; nor can they be made so until they have seen it for themselves. In this belief, therefore, we visited the Arsenal yesterday, and ascertained a number of facts which are appended: --

#### THE COMMANDANT OF THE ARSENAL.

The Arsenal is commanded by Captain W. R. GIBBON, a comparatively young, but thoroughly experienced officer of the regular United States service. He was ordered here from New Mexico several months since, and was placed in command of the post on the first of April last. The position which he fills is one of great responsibility. The value of the materials now made up and being made up at the Arsenal is upwards of \$3,000,000, of which a strict account is required to be kept and rendered quarterly. For this reason the rules regulating the admission of visitors to the establishment are necessarily rigid, and no person is allowed to pass through the

storerooms unless accompanied by an authorized Government attaché. *All the clothing furnished to the United States Army is made at the Gray's Ferry Arsenal*, and the workmen constantly engaged therein are numbered by thousands.

#### BUSINESS OF THE ESTABLISHMENT.

The business of the vast establishment is carried on in three separate structures. The main building, which is the storekeeper's department, is T-shaped, the base of this T fronting towards Gray's Ferry road. On either side of it are the buildings devoted to the manufacturing and receiving departments.

#### THE STOREKEEPER'S DEPARTMENT.

Passing beneath an arched corridor, where scores of packers are hammering boxes into transportable shape, we enter the forwarding room on the first floor. Hundred of boxes are disposed around the room, and appear to be ready for shipment at an early day. We copy the directions on a few of them. Captain N.L. WEBB, Co. I, Col. SMALL'S regiment, P.V., *Phila.* A.L. KIDNEY, Co. E, Col. EINSTEIN'S regiment, P. M., *Phila.* Capt. GEORGE GIBSON, Carlisle, Cumb'd Co., Pa. A number of boxes as yet unmarked are also here, and will be shipped for St. Louis this morning.

On Tuesday last, 15,000 canteens were shipped to the Federal Troops. Latterly a large number of them have been forwarded to Washington and Chambersburg, and a large supply are now being made up for St. Louis, Cincinnati, and the Western Department. It is estimated that at least 80,000 canteen are now stored in the Arsenal.

Passing upstairs to the second floor, we enter Captain GIBSON'S office. On the walls hang several banners that were doubtless handsome *once*, but the light of their glory has departed with the touch of time, and the silk is crumpled and faded, and dusty. Over the door hangs a brighter picture – an enamel painting of the Bird of Jove, with fiery thunderbolts, irrepressibly blue clouds, and agonizing stars coruscating around miscellaneously.

At a desk, a short distance from the centre of the room, a handful of clerks are engaged in scribing, transcribing, and stewing over long columns of figures, with ripples of indignation occasionally breaking along their feverish lips, for 'tis a blessed hot day.

Immediately opposite the Captains office is the packing room. To send clothing to very distant stations, the ordinary precaution of packing it in boxes is found to be inadequate for its protection and it is there for placed in a "form," subjected to a very heavy pressure, and then sewed up in bales, which are covered with a peculiar painted cloth made on the premises. This cloth consists we believe of ordinary canvas, covered with several coats of water proof composition. Thousands of them were hung out on rack to-day in the pack room.

On the same floor, but to the east of this room are ranged series of bins, in which the army clothing is stored until a requisition is made upon the commandant for a supply. Each of these bins extend from floor to the ceiling, and would make two ordinary sized country cottages. They are lined with linen, are protected from the dust and heat of the sun by huge plaid drop curtains which may be raised by cords and pullies. A large corridor leads to each row of bins, but such is their length and extent that even at noon, many of them are enveloped in an "inky cloak" of all but palpable gloom.

The army sack coats, of which we saw thousands upon thousands, are all made in the establishment by women, as also the great coats. As many as twelve thousand of these coats have been shipped to various points in the United States in a single day. Before admission to the store rooms they are closely inspected, and if deemed imperfectly made or finished, are at once rejected – no circumlocution in the matter, and no favoritism. Next we come to the footmen's

pantaloon of plain, bluish black cloth; then to the great coats for mounted men; then, at the end of the passage, to a stocking vault. There they lie – cart loads after cart loads of stockings – and all of them ushered into being by the omnipotent influences of Government contractors.

Then we came to a bin of “dress clothing,” which is intended more for show than service. The jackets for mounted dragoons are quite prettily trimmed with orange, and the ordnance coats with light yellow. After awhile we come to the ordnance artillery coats that are of dark blue, edged with the inevitable “red tape.” Of which so much has lately been writ understandingly.

The mounted riflemen are entitled to the exclusive honor of being the only branch of the service whose uniforms are trimmed with green.

There were also light artillery jackets, *et cetera* jackets, but nobody would wade through the list. All these descriptions of clothing are assorted, both as to class and size for the sake of convenience and speed in packing. When kept for any length of time on hand, they are taken out at intervals and sprinkled with camphor and turpentine for entomological reasons.



FIG 2

Passing up stairs to the third floor, the stock of underclothing on hand is found to be enormous, as no variation in the style of it is necessary for different departments of the service. The shirts and drawers are of a good quality of Canton flannel. Here are also soldier’s

mattresses, which are simply cases of stout linen, which are intended to be filled with straw. In a garrison, this straw is renewed once a month, by which means to beds can always be preserved in a clean and wholesome state. There is also a binful of fatigue and stable jackets, a species of loose overall; to keep the uniform neat and clean when necessary.

At the end of the passage is a "niche in the wall," filled with hundreds of folio blank books intended for the reception of regimental orders, soldiers' descriptions, etc.; for be it understood, that whenever a soldier enlists in the regular service, a complete description of his height, color of his hair, eyes. Etc., and of the amount of clothing he receives, and of the amount of pay he receives, is recorded in black and white, so that every man in the service is blessed with the proud consciousness that he can try to work himself up to a captaincy; and should he succeed, he will have that still greater pride of turning again to that record in black and white, reflecting upon the humble position he once filled in the "Grand Army of the United States" – two great privileges.

Here are also a lot of French tent rods, for the support of the tent windows. They are what most persons would be disposed to regard as a new-fangled notion, but really possess much merit. They are made of vulcanized iron, to all appearances.

The next bin contains a quantity of inside pockets for haversacks, consisting simply of canvass bags to keep the provisions from coming in contact with the paint of the haversack. The cavalry foraging caps are of black cloth, trimmed with light yellow tape. Drum-heads and tent cordage are also stored in the corner of a huge bin; and, looking very much like a pile of paving stones in the gloom of the place, lie a lot of canteens. It has been necessary to substitute cotton for leather straps in the manufacture, in consequence of the great diminution of the leather supply.

An inestimable number of mosquito nets are likewise stored on this floor. A great quantity of them have been recently sent to Key West, Fort Pickens, and other Southern stations held by United States troops.

An article of the soldier's outfit, of which but little mention has heretofore been made, is the *talma*- a long oil cloth cape, intended for the protection of mounted troops in wet weather.

The tentmaking room is on the same floor. The apartment is probably 60 by 40 feet in size, but from the number of men at work within it, it has the appearance of being much smaller. Hundreds of yards of clean white canvas are strewn around upon the bare floor, or gathered up in the laps and knees of the sempsters, who are plying spikish looking needles, threaded with ropish looking twine. The men are all employed on piece work, and there are, consequently, no drones in the hive. The next apartment we enter is a sort of *multum in parvo*- guidons for mounted companies- blue, green, and yellow cords, for dragoons, riflemen, and cavalry, -drum sticks, shoulder scales, hat-cords, ostrich plumes, brass letters for the designation of companies – and all the other trinkets and paraphernalia of "grim-visaged war"

When we reach the fourth floor, we find ourselves in an uncomfortably, nay, stiflingly hot garret, or lumber room, the party walls of which are arched. There is but a little in the place to console the aching marrow of our knee joints but an impromptu gymnasium, gotten up by the clerks, where they amuse themselves when the "innumerable caravan" of columns to be added is numbered with the treasures of the past. But it is not a piece for clumsy people with overlarge noses and unmanageable feet to stumble into in the dark, for ponderous malignant sandbags are suspended from the cob-webbed rafters overhead, and treacherous cords and roped hang down to trip even the lightest and the most fantastic of toes. And then, whichever way you slip, those horrid dumb-bells are rolling under your feet as if they were sea-sick!



FIG 3

### THE RECEIVING DEPARTMENT

On the first floor, to the east of the storehouse, is the general receiving room. From the ceiling a number of drums, which have just arrived, are suspended in linen sacks. To support the immense weight on the floor above, four massive girders obstruct the view of this room. At the north and south ends of the room are vaults, each twenty feet in depth, which are piled up with grey blankets. Four thousand of these blankets were forwarded to the West on Tuesday last.

In various portions of the room are picks, spades, shovels, straps for tent poles, etc., all of which are required to pass inspection before being received.

An invoice of knapsacks having been inspected is now being counted for the second time by separate gangs of men. All these precautions are necessary for the protection of the Government.

In the passage leading from the room are the three sizes of flags in use by the Government, which are the garrison flag, storm flag, and recruiting flag. Here are also a lot of haversacks; the pockets of which, previous to their going to the receiving room, are taken out, and stowed away until they return from the paint shop.

Still on the first floor is the measuring room, where a lot of kersey is being passed through rollers three feet in circumference, a given number of times, to ascertain its length. Three persons are required to operate this machine. Materials of this description are all in cases inspected by MR. HUGHES, assisted by MR. SPECK.

In the opposite room they have been inspecting camp kettles, and have condemned five out of fifty examined-not an extraordinary number when the rigidity of the inspections is considered.

On the second floor is the bootee store room, which contains twelve bins, completely filled with brogans. A number of them have just been packed for transmission to St. Louis.

In the next room is the regular service hat. It is of black felt and is intended to be looped up at one side and furnished with an ostrich feather. On the third floor is stored the cotton duck for making tents, and twine for sewing purposes. Two hundred millions of tent buttons were received at the Arsenal a day or two since, and it is stated that they have all to be *counted!* We may as well here explain that tent buttons are small wooden knobs to place in the end of the tent ropes, so that the later will not rend the canvas. In another room are some of the old style of army equipments, such as great gaulky infantry hats with horse-taily looking plumes, and cavalry hat, warranted to produce concussion of the brain in three weeks wear, or no sale. In the garret little is to be seen. Six hundred rifles, however, are stored here in boxes, but only for the defence of the place in case of attack. *No other arms or ammunition of any description is stored here.*

In the center of the large and beautiful grass plot fronting the main building, is a white latticed alcove, enclosing a stationary fire engine. The engine, we are informed, is stationed over an immense cistern, containing 100,000 gallons of water. It is one of the old style of hand engines. There is another fire engine on the premises which is locomotive- that is, in the strict sense of the word.

#### THE MANUFACTURING DEPARTMENT

Is situated to the west of the main building. The first floor is used as a shoe-finishing room. The process of inspecting the boots and bootees is carried on the second floor.

In the cutting and clearing department 37 hands are constantly employed within the building, who, in turn, give employment to about *one thousand* outside workmen.

In the clothing department, 29 men are employed inside as cutters, inspectors, and trimmers, and about 4000 persons outside. Passing to an apartment where the clothing which has been cut out is handed to outside workmen and workwomen, the eyes of the visitor are involuntarily directed to a hole in the ceiling, about two feet in length and one in width. *Every particle of clothing ever worn in the United States Army has passed through that insignificant looking little hole!* for in the room overhead the cutters are constantly at work. The clothing department is under the superintendence of MR. IRVIN, than whom no man more thoroughly understands the duties of his position. And speak of gentlemen who understand the duties of their office, we must not forget to mention MESSRS. MONTAGUE and PARSONS, the inspectors of boots and bootees.

#### PRIVATE DWELLINGS

To the right, passing the entrance, stands the residence of Capt. GIBSON, a plain but substantial brick structure, almost hidden from view by a thick foliage of the trees.

Immediately in front of this stands a row of neat brick dwellings, fronted through their whole length by a handsome marble colonnade. They are occupied by some of the families of the workmen.

Northwest of these stands the carpenter shop, where are the packing boxes are made-as many as one hundred and fifty per diem being turned out on an average.

Adjoining this on the west is the tent loft, where thirty small tents, ten small hospital tents, and twenty-five wall tents can be made per day. The complement of men engaged in this

department is thirty-two. In addition to this at least fifty wall tents are daily cut out, and finished by outside workmen.

To the north of the carpenter shop is the paint shop where the haversacks and knapsacks receive the finishing touches. Sixty-four men are here employed. The paint used consists of lamp-black, oil, and turpentine, and one or two other ingredients not allowable to mention. Ten thousand knapsacks and eight thousand haversacks can be painted and made ready for use in a single week of fair weather.

We conclude this rather lengthy article by giving the following interesting and reliable data:-

#### ALLOWANCE OF CAMP AND GARRISON EQUIPPAGE.

General-3 tents, 1 axe and handle, 1 hatchet and handle.

Field Officers, i.e, Colonels, Lieutenant-Colonels, and Majors- 2 tents, one axe and handle, 1 hatchet and handle.

Captains – 1 tent, 1 axe and handle, 1 hatchet and handle

To every two Lieutenants- 1 tent, 1 axe and handle, 1 hatchet and handle

Every six footmen, or five mounted men- 1 common tent, 2 spades, 2 axes and handles, 2 pick axes and handles, 2 hatchets and handles, 2 camp kettles, 5 mess pans.

#### ALLOWANCE OF CLOTHING TO EACH, FOR FIVE YEAR S' SERVICE.

5 Uniform felt hats, complete, with trimmings; 5 forage caps; 8 uniform coats or jackets; 13 pairs of trousers; 15 flannel shirts; 11 pairs of drawers; 5 pairs of boots; 5 pairs of bootees, for mounted men; 20 pairs bootees for footmen; 20 pairs stockings; 2 leather stocks; 1 great coat; 2 stable frocks; for mounted men; 5 fatigue overcoats; for engineers and ordnance; 2 blankets; 10 sack coats.

The soldier is allowed clothing as stated in the foregoing list, or articles thereof equal value. When the issues equal in value his allowance for this year, further issues are extra issues to be charged to him on the next muster roll. In barracks, 12 lbs of straw per month, for beddings, is allowed to each man.

Notes:

1. Papers of the Department of War 1784-1800, Record Group 94, "*Payment for Purchase of Lots, Voucher No. 56,*" (Washington, D.C.: National Archives Building). Website: <http://wardepartmentpapers.org/>, Accessed: 14 March 2011.
2. Congress, House, Select Committee on the State of the Treasury Department and the Accountability of Persons Entrusted with Public Moneys, *Application of public money. Communicated to the House of Representatives, 7<sup>th</sup> Congress., 1<sup>st</sup> Sess., 29 April 1802, 818.*
3. E. L. Carey and A. Hart, *Philadelphia in 1830-1 or, A brief account of the various institutions and public objects in this metropolis. Forming a complete guide for Strangers and a useful compendium for its inhabitants.* (Philadelphia: James Kay, and Jun. & Co., 1830) 182.
4. The Quartermaster General of the United States Army to the Secretary of War. *Annual Report for the year Ending in June 30<sup>th</sup> 1865.* (Washington, D.C.: Government Printing Office. 1865) 94.
5. "Gray's Ferry Arsenal." *Philadelphia Inquirer.* 13 June 1861. 5.



Captions:

FIG 1: View of the Schuylkill Arsenal's East Elevation built in 1800. This photo was taken before its demolition in 1962. Library of Congress, Prints & Photographs Division, HABS Reproduction number HABS PA,51-PHILA,578A-1.

FIG 2: Date Stone located between the 2<sup>nd</sup> and 3<sup>rd</sup> floors of the East Elevation building. Library of Congress, Prints & Photographs Division, HABS Reproduction number HABS PA,51-PHILA,578A-4.

FIG 3: Groined Vaults in the basement of the Arsenal. Library of Congress, Prints & Photographs Division, HABS Reproduction number HABS PA,51-PHILA,578F-2.