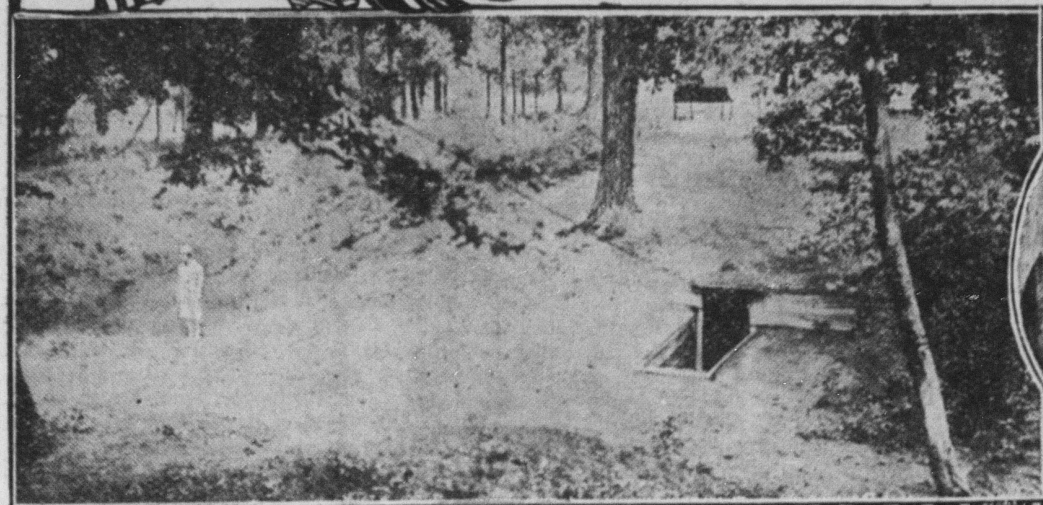
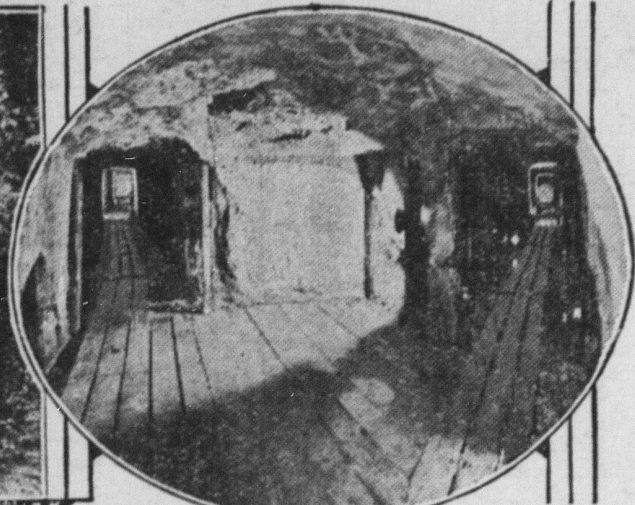


"The Longest Siege on American Soil"



Historic Crater and Entrance to Federal Tunnel



Part of the Tunnel System at Petersburg

By ELMO SCOTT WATSON

LATE last month there gathered near Petersburg, Va., a great crowd of people to take part in the dedication of a new national military park. Among the public recreation areas set aside in this country by the federal government a national military park enjoys the distinction of having a double purpose. It is a memorial to the historic event which occurred there, a patriotic shrine to which Americans can come for renewed inspiration by standing upon the soil made sacred by the sacrifices of previous generations of Americans there; and it is a military classroom and an outdoor war laboratory where future defenders of the nation may study the lessons in military science which will help them in that defense.

The Petersburg national military park is the fifth and latest of such areas to be established but few of the others are more interesting from either point of view. It derives its historic interest from the fact that here occurred the dying struggle of the Confederacy, for when the Union army broke through the Confederate lines at Fort Gregg on April 2, 1865, this victory ended 9 months and 12 days of siege, "the longest siege on American soil," and it spelled death to the Confederate cause. Richmond, the heart of the Confederacy, was cut off from the rest of the South when Petersburg, the head of navigable tidewater and the focus of the various railroads and highways which brought supplies and reinforcements to the capital, fell. After that Lee's surrender to Grant at Appomattox was inevitable, even though it was delayed seven days.

As a field for the military student the Petersburg area is important because it has in a fine state of preservation more than 25 miles of fortification with thousands of feet of tunnels still intact. But the most important fact is the similarity between this campaign of more than half a century ago and the principal campaign in the more recent World War. For United States army officers are the authority for the statement that "the military operations connected with the siege of Petersburg contained every feature of strategy and tactics that began in the race from the Marne to the English Channel between the Allied armies and the forces of the Central Powers, each seeking to outflank the other and ending when the Allies burst through the German lines in the Argonne forest just as the Federals crumpled the Confederate lines at Petersburg."

But to the average American, unfamiliar with the intricacies of military science, the principal appeal of the new national military park, now comprising some 201 acres with the possibility of later having a total area of 516 acres, lies in the numerous "human interest" angles to the story of this siege and the battles which preceded and followed it, in the tales of heroism on the part of both the men who wore the Blue and those who wore the Gray which are conjured up by a visit to this historic place.

Early in 1864 Grant, balked in every attempt to defeat Lee north of the Confederate capital and thus make good the war-cry of "On to Richmond!" which had been raised in the earliest days of the war, decided to swing around, cross the James river and strike Richmond from the south. But Petersburg, "the back door of the Confederacy" stood in the way.

The first battle in the fighting around Petersburg, although it was little more than a skirmish, furnishes one of the cherished traditions of the lost cause and supplied an incident in which all Americans can take pride. At that time Petersburg was garrisoned by Wise's veteran brigade but with it stood the Petersburg Home Guard, composed of every old man and young boy who was able to lift a musket and squeeze a trigger, and it was to this little group less than 200 strong that the glory of June 9, 1864 goes.

On that date one of Grant's subordinates, Gen. B. F. Butler, sent General Gillmore with 3,000 infantry and General Kautz with 1,500 cavalry to "capture Petersburg and destroy the Appomattox Bridge." The cavalry led the advance and immediately struck a stiff resistance from the Home Guards. For some time the 200 held the 1,500, at bay, then with half their force dead or disabled the Home Guards were forced back upon the advancing Confederate regulars. But they had held up Kautz's advance long enough to save Petersburg.

Again a week later the city might have been taken but for blundering upon the part of the Union generals which resulted in a fearful loss of their men and led to the prolonged siege of nine months instead of precipitating a running fight between Lee, retiring to the west, and Grant in hot pursuit. During the nine months when Petersburg was invested skirmishes occurred almost daily, totaling some 150 minor engagements. The most famous of these was the spectacular explosion of the Crater, one of the most dramatic incidents of the whole war. The following account of it is taken from a history of the operations around Petersburg prepared by Capt. Jeffrey Montague of the United States army:

"There was a regiment of Pennsylvanians in Burnside's corps, the Forty-eighth Infantry, mostly coal miners, and their commander, a

mining engineer, Lieut.-Col. Henry Pleasants, in the latter part of June thought it would start something if it could make a breach in the Confederate line about 130 yards in front of him, by mining Elliott's salient and blowing it up. The idea went forward through channels, received Meade's and Grant's approval, and Burnside got orders to put it into effect and exploit the opening. Grant thought enough troops could be poured through the crevasse to capture Petersburg.

"Ferrero's negro division was being trained by Burnside to lead the assault through the breach to be caused by the mine, but Meade and Grant disapproved this and Burnside had the storm division chosen by 'drawing straws.' The lot fell to Gen. James H. Ledlie, commanding the First division of Burnside's corps. This, it turned out, foredoomed the enterprise to what Grant in his Memoirs called a 'stupendous failure.'

"It was brought out then and by a congressional investigation later, that Ledlie's 'bad habits' and consequent unreliability were well known in the Union army. It was disclosed that Ledlie stayed behind in a dug-out 'drinking' throughout the Crater action and could not be induced to go out and try to extricate the remnants of his division from the deathtrap in which they were being torn to shreds piecemeal.

"Ferrero, following with the negro division, joined Ledlie in the 'bomb proof' while his troops hurried on, soon to be huddling with Ledlie in the fire-swept Crater until all that could of both divisions recoiled before the rushing Confederate counter-charge which reestablished their line.

"Pleasants commenced work at 12 noon, June 25, 1864, in the ravine between the hostile lines, with improvised tools and materials and on July 17 the main tunnel, 510.8 feet in length, was completed. Sounds of Confederate counter-mining caused Pleasants to stop. Work upon the right lateral gallery at the end of the tunnel was begun at 6 p. m. July 18, regardless of audible enemy counter-mining, and work on both right and left laterals was rushed to completion July 23. A total of 18,000 cubic feet of earth was excavated.

"Four tons of powder were placed in the laterals July 27 and the miners' tamping was completed July 28. Pleasants was ordered to explode the mine at 3:30 a. m. July 30, and lighted the fuse at 3:15 a. m.

"The mine failed to explode. Lieut. Jacob Douty and Sergt. Henry Rees, who volunteered to go in and see why, found the fire had stopped where fuse lengths had been tied together. They spliced fresh ends, lighted the fuse again, and at 16 minutes before 5 a. m. the 320 kegs, containing 25 pounds each, blew up.

"Witnesses felt the earth quake but heard nothing beyond a dull detonation. What they saw, however, was enough. The air above the spot was filled with a mounting cloud of earth, men, guns, planks and fragments. Confederates near the Crater ran in every direction, the waiting Union legions shrank back, to escape the shower of debris. Both sides gazed astounded, appalled. A great hole appeared in the ground, 200 feet long, 60 feet wide, 25 feet deep, smoking, dust-shrouded, horrible.

"Union artillerymen recovered first. Almost immediately they began laying down a fiery barrage on both sides of the breach. Five minutes later, blue soldiers in ones, twos and



Ceremonies at Federal Fort Stedman



Confederate Fortification Battery 5

groups could be seen running towards the smoking Crater. Burnside and Ledlie had failed to clear their own defense obstacles and to prepare passages out of and over their own deep trenches and their storm troops were disordered and delayed accordingly. Not a shot was fired from the Confederate side at first, but by the time the Crater was filled by a huddled mob of foremost men, the Confederate rifles were cracking from flanks and front, hostile guns were throwing gusts of canister, and it was fatal to go beyond that scene of hideous death.

"Two hundred and seventy-six Confederates, officers and men, were killed by the explosion of Pleasants' mine. Gallant officers of the Union 'line' sprang out of the death pit and led a few of their bravest men as far as 100 yards beyond the Crater's lips, but forward of that none went and nothing could live. Survivors raced back for what shelter the pit could give them. There one after another fell, torn by rifle balls and shell fragments.

"Men started despairingly to dig a trench from the Crater back to the Union lines. Men in the lines began to dig a hasty ditch towards the Crater to save what life they could from certain death if the men remained there. Towards noon orders were gotten into the Crater for the men to withdraw the best they could. They dashed for their lines, suffering heavy loss. The 'fiasco' cost Grant 4,400 men. At about 2 p. m. the Confederates of Mahone's division held the Crater and all the horrors that lay in and about it."

After Grant's failure at the Crater, the siege of Petersburg dragged on through the fall and winter of 1864. Finally in the spring of 1865 came the climax in the tragedy of Petersburg and in the greater drama of the decline of the Confederacy. This act took place at Fort Stedman, the remains of which are one of the outstanding points of interest in the new national military park today. Captain Montague describes the action there and its results as follows:

"Fort Stedman was named for Col. Griffin A. Stedman of Hartford, Conn., commanding the Eleventh Connecticut Volunteer Infantry regiment, who had fallen in action August 5, 1864.

"Confederates pretending to be deserters overpowered the Union picket line in front of Stedman around 3 a. m., March 25, 1865, and were closely followed by the storming party. In three columns, one aimed straight at Stedman, the other two at its flanking batteries. The sleeping garrisons were captured or fled in a nightmare of dismay.

"Grant and Meade were at City Point to greet President Lincoln, who had come down to attend a grand review of the Army of the Potomac, or to be 'in at the death' as some thought at the time, and it devolved upon General Parke to take command. Parke ordered Tidball to concentrate artillery upon the breach, Willcox to recapture the last works and Hartranft to concentrate his division, in reserve, and support Willcox.

"Dawn was breaking. Fort Haskell began flank fire upon the Confederates. Hartranft led what formed troops he could find to check the enemy and gain time. Fort Haskell repulsed determined attacks. At 7:30 a. m. Hartranft received an order to take his assembling division and recapture Stedman, now swarming with the enemy. He had the charge sounded 15 minutes later and 'in no time,' as one writer put it, the Stars and Stripes were back upon Stedman's parapets. The Confederate wave receded to roll forward no more.

"Fifteen days later that happened which had to happen at Appomattox Court House."

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Terrace and Save Soil, Says Expert

Losses by Heavy Rains Can Thus Be Reduced to Minimum.

(Prepared by the United States Department of Agriculture.)—WNU Service.

Washing away of fertile top soil from cultivated soils in north central Missouri by heavy rains is reduced to a remarkable minimum when the land is terraced properly, says A. T. Holman, of the bureau of agricultural engineering, United States Department of Agriculture, who has charge of the experiments at the federal erosion experiment farm at Bethany, Mo. His statement is based upon accurate measurements of soil losses at the farm in 1931 from terraced land planted in corn.

Measurements were made on both level and graded terraces planted to corn, during a period when the rainfall was from 50 to 90 per cent in excess of the normal for northern Missouri. The data so far obtained indicate that level terraces or those with small grades are more desirable in this region than terraces with 6 inches fall in 100 feet. The measurements show comparatively little soil loss from sheet erosion and no formation of gullies.

Soil losses from unterraced areas on the farm planted to corn averaged 140 tons an acre—50 to 100 times as great as the losses from terraced land. The average loss from terraced land in three corn fields, land varying in slope from 8 to 16 feet in a hundred, was 2.3 tons an acre. The smallest loss was little more than one ton an acre. It occurred on land with an average slope of 15 feet in a hundred, protected by level terraces.

On a steep, rough hillside planted in corn, with terraces having 2 inches fall in 100 feet and corn rows parallel to the terrace lines, the soil carried away was only 85 pounds more than one ton per acre. These experiments show that even when steep land is planted to corn and even in a year when the seasonal rains are both numerous and heavy, erosion losses are almost negligible if the land is protected properly with terraces.

On terraces that had grades of 6 inches in 100 feet, more than twice as much soil was lost as on level terraces. According to measurements, 1.00 ton of soil an acre was lost with level terraces as compared with 2.72 tons an acre with terraces having 6-inch grades.

Blister Rust Spreading; More States Affected

(Prepared by the United States Department of Agriculture.)—WNU Service.

Blister rust, a serious disease of white-pine trees, has been found in five states heretofore believed free of the disease, the United States Department of Agriculture reports. The states are Maryland, Virginia, West Virginia, Ohio, and Iowa. These bring the total of eastern states in which the rust is found to 17.

Blister rust is spread by the wind and lives not only on white pines but also on currant and gooseberry plants (Ribes). It is very destructive to white pine. The chief method of control is the eradication of currants and gooseberries within 900 feet of stands of pine.

The rust spread from Pennsylvania into Maryland, Virginia, and West Virginia. In Maryland it was found on European black currants, wild gooseberries, and white pine, while in Virginia and West Virginia it was found only on wild gooseberries. In Ohio the rust was found on European black currants and wild gooseberries, while in Iowa it was found on northern white pine.

Agricultural Notes

In eggs the presence of an air cell at the large end is an indication of quality. When eggs are placed in the egg case with the large end down, a jar will cause this air cell to break.

Work corn ground well before planting, then cultivation can be delayed until the corn is high enough to cultivate easily. Kill the weeds before rather than after planting.

Every chick that comes from an incubator is not a desirable—there are usually several undesirable in every hatch. These latter should be destroyed.

Gas ant colonies by pouring carbon bisulphide into the hill or nest. These busy creatures are a nuisance in the garden, because of their habit of colonizing aphides upon plants.

Curculio winters in hedge rows, woody and grassy spots and trash left around the orchard. Burning over these wintering places is a good plan and will catch a good many of the adults.

More varieties of native grapes have been found in the United States than in all the rest of the world combined, experts of the Department of Agriculture report. Altogether in the 13 grape-growing sections of the country there are to be found 83 varieties of grapes.

Some birds will eat 100 or more insects at a meal and, if the insects are small, may devour several thousand. Bird refuges on farms attract and protect the birds, which in turn help to destroy the insect pests.

False Economy in Use of Cheap Seeds

Advice Given New Yorkers Applies to All.

(By PROF. E. L. WORTHEN, New York State College of Agriculture.)—WNU Service.

Avoid false economy's lure of low prices on alfalfa and clover seed. If necessary, reduce the rate of seeding or the acreage, or both.

By a little better seed bed preparation, the standard rate of seeding for both alfalfa and clover may be reduced as much as 10, 15, or even 20 per cent. Where clover is seeded on winter wheat, less seed and a light harrowing immediately after seeding may bring as thick a stand as a normal amount of seed. If a mixed seeding is to be made, get the different seeds and mix them at home.

Make certain that seed is adapted to local conditions for the hardest is none too good for New York's climate. All red clover seed should be northern-grown and either certified or of guaranteed origin. Buy either Grimm, Ontario variegated, or other variegated types of alfalfa and demand either certified seed or a satisfactory guarantee of the source of the seed.

Work Horse Needs and Deserves Proper Care

Correct fitting and proper adjustment of harness is a big step in the elimination of sore shoulders on horses, says the Nebraska College of Agriculture. Cleaning the horses' shoulders following the day's work and again before harnessing in the morning will help prevent sore shoulders.

A properly fitted collar barely allows the flat hand to pass between the collar and the windpipe and permits the finger tips to pass at the side of the neck just above the shoulder points. The harness should fit snugly and be drawn tightly around the collar so that the point of draft will be about one-third of the distance above the shoulder points.

The average farm work horse consumes about 3,000 pounds of grain and 5,000 pounds of roughage yearly. When the horse is doing hard work, the average animal will need approximately 25 bushels of corn or 40 bushels of oats and about a ton of roughage. Hard grains such as wheat, barley, rye, kafir and other small grains may be improved by grinding or rolling.—Nebraska Farmer.

Dosing Wormy Lambs

One of the lamb's worst enemies is the common stomach worm. The animal does not thrive satisfactorily when carrying this parasite, and consequently the farmer loses money. One way to avoid these worms is to change pasture so there will be little danger of the lambs picking up worm eggs deposited on the grass last year by other sheep.

Sheep can be treated for worms with a vermifuge. Some farmers dose each animal with one to four ounces of a 1 per cent copper sulphate solution. This solution is made by dissolving one-fourth pound of copper sulphate in three gallons of water. Ewes receive from two to four ounces, depending on their size, while lambs get one to two ounces. Dose with an ordinary syringe or with the aid of a funnel or small rubber tube. Care should be taken not to lift the sheep's head up, since this may cause strangulation.—Wallace's Farmer.

Clean Ground for Pigs

"I wanted to see whether there was anything to this clean-ground system of raising hogs," said Axel Bergsten of Riley county, Kansas, in Successful Farming. "So a year ago I separated my brood sows into two bunches. One half I left in the lot where I have raised hogs every year and the other half I moved down in the alfalfa field.

"I fixed up an automatic waterer but it didn't work very well, so I had to carry water, but it was worth while. The pigs out on the clean ground grew right away from those farrowed in the old lots and at five months of age were from 50 to 75 pounds heavier. Next year every sow I have will farrow on clean ground, as I am fully convinced that it is the only way to raise hogs."

New Hive Queens

New queens will be accepted more readily by old colonies if introduced during the honey flow. The old queen, however, should not be removed until about three weeks prior to the end of the flow or until her bees are no longer of use in the honey flow. The new queen should be introduced and laying about eight weeks before frost. This allows the rearing of young bees for the winter season. Failing queens should be replaced at any time by young, vigorous queens, but care should be exercised to get those of good strains.

Starting Sweet Clover

Sweet clover grew rank along the road by the T. J. Sands farm, Brown county, Kansas, but Mr. Sands couldn't get it started on thin spots in the pasture. Thinking that lack of inoculation might have caused the failure, he hauled a load of dirt from the roadside and threw it down, a shovelful in a place, in the pasture. Plants sprang up wherever the inoculated soil was thrown. In a short time, the whole area was inoculated, and grew clover successfully.—Capper's Farmer.