

UNCLE SAM AS A BUILDER OF IDEAL ROADS IN PORTO RICO

If I were asked to venture an opinion as to the greatest work of the United States government in this island of Porto Rico, I should unhesitatingly say that it was in road construction. Having but recently arrived in this city from an extensive trip around and over the island, I feel qualified to give such an opinion, more especially since I can compare the result of my observations with another similar journey taken in antebellum times.

We hear a good deal about the "poor Porto Ricans" and what they have suffered on account of the change from Spanish to American rule, even that great hurricane of two years ago being charged against our United States weather bureau, coming as it did right on the heels of American occupancy. It was the worst the Porto Ricans had suffered in a century, and as the Americans had just ousted the Spanish rulers and taken charge of course (so the native reasoned) the Americans were responsible.

This is about as reasonable as any grave charge that has been brought against the present regime, which, if anything, leans toward the native rather than the man of foreign birth. "I have no use for these Spaniards," said an American officer to me the other day, "for they are never satisfied. We fed them for nearly a year, and they got so lazy that hardly any of them would work for pay. We advanced money to sufferers from the hurricane, and now they demand a loan from the United States, without interest, and to be repaid some time in the sweet by and by. In order to provide labor for the starving inhabitants of the interior last year and year before we opened roads and renovated the old highways, and the result was that two of our paymasters nearly died of nervous prostration."

What this officer said is true. The natives have been quite spoiled by Uncle Sam, acting in his capacity of benefactor of the Porto Ricans. But, again, perhaps the initial distribution of aims on a large scale was unavoidable, for there was hardly a garden patch or plantation that had not been wrecked by the hurricane or despoiled by the roving Spaniards in 1898. And it is greatly to Uncle Sam's credit that as soon as possible he changed the method of administering the funds from an eleemosynary system to a practical basis of work. Wages were doubled at once, and then the natives struck for higher rates, having imbibed American ideas with astonishing rapidity. Then came the hard times temporarily resulting from the transition from Spanish silver to American gold, the changes in the tariff, etc., which for a time demoralized the native and made him suspicious of Uncle Sam's ultimate intentions. He has, however, at this time, summed his normal condition, which is the happy go lucky state in which Adam and Eve are supposed to have existed "before the fall." His children run about in a state of "nature unadorned" delighted to experience if not to behold, and his wife and himself revel in heretofore unattainable "peas" or good, hard silver dollars.

There never was a period in Porto Rico's history in which the average native received so much for his labor, when disposed to work, or indulged in so many luxuries as now. And to get around to the topic with which I started, this happy state of affairs has been brought about mainly by the universal distribution of "diners" through the building of roads. The island had roads, of course, before the advent of the Americans and possessed one of the finest in the world in that magnificent highway from this city of San Juan to Ponce on the southern coast. Now, I have traveled a good deal in Spanish countries, including Cuba and old Spain itself, but never in my experience have I encountered anything to compare with that glorious "King's road" over the mountains connecting the two largest cities on this island. The Spaniards are not celebrated as road builders.

ment was secured on a firm basis and outlined a comprehensive scheme of operations. American occupation here may be said to date from October, 1898, although our troops first landed the last week in July. Early in May, 1899, General Davis took command virtually as captain general, and by a "general order" reorganized the control of public works so as to carry on the plans of his predecessor, the late General Henry. All harbor work, lighthouse construction and repairs, buildings and bridges and all technical matters pertaining to railways were placed under a board of public works controlled by Captain W. V. Judson, United States engineers, as president, with whom co-operated another American and a Porto Rican. The

tenance of roads was adopted. This consisted in having, first, an engineer in charge of the whole system. Under him were 3 assistants, 9 overseers, 16 foremen and 95 laborers. Each of the latter had sole charge of from one and one-half to two and one-half miles of completed permanent road, which he was to watch over and keep in perfect order.

Wherever one may go in France or in any French colony he will find the diminutive dwellings of these "camioneros" as the Spaniards call them, dotting the roadside at regular intervals, and the laborer himself traversing his "beat," which he is obliged to keep constantly under supervision, or seated beside a little heap of stone, which he



VIEW OF OLD ROAD GUAYAMA-ARROYO.



EARTH EXCAVATION FOR NEW ROAD.

BREAKING STONE FOR FIRST COURSE.



NEW ROAD FROM GUAYAMA TO ARROYO.

passing vehicles are compelled to traverse it by barriers, which keep them from the finished portions until the whole road is rendered as smooth as a floor in every part.

The result of this careful construction and constant supervision is seen in the prosperity of the country districts traversed by these roads, which are enabled to get produce to market with as little wear and tear as possible.

It may be that from this experiment in road construction on a large scale the United States will learn a much needed lesson and that in the near future trained engineers will be in charge of our highways, thus making them second only in importance to our railways and completing a long desired link in the chain of improvement connecting the different sections of the United States. The total area of Porto Rico is only about 3,600 square miles, and of this the cultivable coastal plain occupies but a relatively small portion. The interior is made up of high hills and mountains, some of the latter rising to above 4,000 feet, making the process of road construction the most difficult imaginable.

The island's coast line is about 270 miles, along which are located at intervals such ports as San Juan, Arrecibo, Aguadilla, Mayaguez, Ponce, Arroyo, Humacao and Fajardo. As the sea is of course the cheapest highway and many coasting vessels as well as steamers afford quick and regular communication between ports, the most beneficial scheme of road building would be one to bring the places and products of the rich interior into communication with the coast. This has been the contention, which events have proved to be correct, of the American engineers. A railroad was projected years ago which, starting from San Juan, was to completely encircle the island and connect all the ports and some of the towns not far distant from the coast; but it was never entirely completed. As the concessionaires were to get a certain sum for each completed section, regardless

of location, they built only those which were easiest. Thus you will find today a rail line from San Juan to Arrecibo, a distance of about 60 miles, with various short branches leading from the capital (San Juan) to nearby towns; another short branch from Aguadilla to Mayaguez, where the system ends. There are gaps between Arrecibo and Mayaguez and between the latter place and Ponce which are only filled by stage or private conveyance, while the long distance between Ponce, eastwardly and around the north end of the island toward San Juan, will never be completed.

The Americans, then, chose wisely for the convenience and commerce of the island when they decided to build only transverse roads from interior points or to connect opposite ports on the north and south coasts over the mountains. Such mountain roads were very difficult to construct, as owing to their grades and the friable nature of the soil they were quickly gullied by the torrential tempests of the rainy season. In these roads, as in fact in all the best system of construction was adopted. First, the roadbed was excavated to the proper depth, then laid with a bottom course of stone five inches deep, broken to a diameter of one and one-quarter to two and one-half inches, and covered three inches deep with an upper course of stone broken in places about half that size. These courses were solidly compacted by steam rollers during and after laying, and the result was a magnificent roadway, durable and almost immediately available so far as it was constructed.

The numerous streams, some of them raging torrents in the rainy season, were spanned by steel and concrete bridges, the concrete for the structures and the culverts being mixed in the immediate vicinity. The effect of the descending rivers when a hurricane is in full blast can hardly be imagined. I myself have seen an iron truss 40 or 50 feet long which had been moved more than a hundred feet during a hurricane. When I saw it, the stream which it spanned was so narrow that one might leap across it.

The Spaniards built before the American invasion 158 miles of road, at a cost of \$3,454,427. Since the Americans took charge they have built 123 miles, at a cost of \$1,822,000. Probably one-sixth of this amount was expended in practical charity, for out of a total of \$420,000 devoted to the relief of the suffering Porto Ricans more than \$200,000 was spent in the construction and improvement of country roads. The total weight of the annual crops of the island which are transported over the various roads to the coast is estimated as follows: Sugar and molasses, 150,000,000 pounds; coffee, 50,000,000 pounds; and tobacco, 6,000,000 pounds, besides various products, such as bananas, etc., bringing the aggregate up considerably above 250,000,000 pounds.

GEORGE M. ETHNARD.

San Juan, Porto Rico.

claiming to be a Cuban deserter he obtained his release and was sent home by Consul General Fitz-Hugh Lee, arriving in New York in January, 1898.

Funston had tried to win Spanish speaking countries, Cuba and Mexico, and when, after having accepted the colonelcy of the Twentieth Kansas, he was sent to the Philippines the limits of his ambition might seem to have been reached. While in San Francisco, en route for the Orient, he "did himself proud" by marrying a beautiful daughter of California after three weeks' courtship, and his devoted wife followed him to the Philippines, where she is still with him, to share the perils and the rewards of his campaigns.

While the incidents already mentioned may read something like comparatively ancient history, all the world—at least the American part of it—knows of his famous deeds in the Philippines. What he had already done would seem enough to suffice any ordinary ambition, but early in May, 1899, scarcely two years ago, all the papers of the country burgeoned out with the details of exploits that put his other achievements into the shade. He and his Kansas comprising the "Fighting Twentieth" had been prominent in many battles, and the ranks of his regiment were greatly decimated when suddenly Colonel Funston sprang into prominence in front of the town of Malolos by swimming the Bagbag river under fire of insurgent sharpshooters and reconnoitering their position. According to the reports sent home at the time, he called for volunteers that could swim, selected 20 and, holding his revolver above his head, plunged into the stream and swam across, followed by his gallant men, with their rifles placed on logs, which were shoved in front of them.

Again, before Calumpit, with two companies of volunteers he crossed the Rio Grande river on a raft and charged the main body of insurgents in their trenches, driving them out by an enfilading fire. These events occurred during the last week of April, 1899, and as a reward for his dash and bravery General MacArthur's suggestion, through General Otis, that he be promoted to be brigadier general of volunteers "for signal skill and gallantry" was promptly acted upon by President McKinley.

Nearly two years later General MacArthur, now in supreme command, cables the president: "His reward should be signal and immediate. With General Wharton, I recommend Funston's retention in the volunteers until he can be appointed brigadier general of regulars." The result is already known.

The story of Funston's battles is briefly told in the inscriptions on the magnificent \$1,000 sword presented to him by his fellow citizens of Kansas in October, 1899, where their names are given: "Caloscan, Polo, Maricao, Guinta, Malolos, Bagbag, Calumpit, Agallit, San Tomas and San Fernando." That was his record nearly two years ago, and that he has not been idle since his recent deluge show. Another inscription on that sword gives his laconic reply to MacArthur's inquiry as to his ability to hold a certain post—"I can hold this position until my regiment is mustered out."

Funston weighs only 120 pounds, but his soldiers say that at least 99 pounds is backbone. He leads where others follow, and his modesty is shown in his disclaimer as to the feat before Malolos, when he gave all the credit to the heroic soldiers Trembley and White, who were really entitled to it and who were rewarded with medals of honor. "It wasn't me I did," he said. "We knew the insurgents couldn't shoot straight and that our boys would attend to them while we were crossing."

CHANNING A. BARTOW.

Brigadier General Funston, Hero of Many Adventures.

THE promptness with which President McKinley acted upon General MacArthur's suggestion that Brigadier General Funston of the volunteers be promoted to a brigadier general of regulars accentuates the fact that the feat he so recently performed in the Philippines was a universal recognition. Even though this promotion carries with it the implied command of the army in 1901, following the rule of seniority, it is declared that this high rank has been fairly won by gallant deeds and is no more than brave Fred Funston deserves.

That noteworthy achievement, however, the capture of the insurgent leader, Aguinaldo, was only an episode in a long career filled with overflowing with hazardous exploits. Though General Funston is yet a young man, now in his thirty-sixth year, he has had probably more strange and varied adventures than any contemporary among his 75,000,000 compatriots. On this account he has been compared, and with some show of reason, with such gallant knights as Richard Coeur de Lion and has been called a twentieth century crusader. General Funston, however, is a knight of another sort—a Sir Walter Raleigh brought strictly up to date, with solid common sense and a practical strain in his composition that saves him from doing impracticable and ridiculous things.

It is refreshing to find that he was not a precocious youth, but just a good, healthy, mischievous, average boy. He stood neither at the head nor at the foot of his classes in school and college, but was the terror of all his teachers and the delight of his merry-making companions. This statement ought to be true, for it is accredited to his mother, who declares that, though he loved books, especially those on natural history, botany and explorations, he did not care for novels, and the thought never entered his head that he might become the hero of any scene or story. He more resembles his mother than his paternal progenitor, having a soft voice, small hands and feet and being of diminutive stature. His father is a big six footer who when running for con-

gress (in which he has served several terms) acquired the sobriquet of "Fog Horn Funston" from his powerful voice. In glancing over the world's list of heroes we shall find that there is generally a discrepancy between the physical proportions of most of them and their deeds. Somehow or other it seems that the smallest men are credited with the biggest achievements, as witness Captain John Smith, Alonzo de Ojeda, Napoleon Bonaparte, etc.

Fred Funston, the "redheaded Kansas boy," was of an independent turn of mind, always seemed to know what he wanted, and he almost always wanted to do something different from everybody else. He had a roving and somewhat reckless disposition, for his mother was a direct descendant of Daniel Boone. His neighbors didn't approve of him because he didn't settle down and stick to the farm, as all his brothers and neighbors did. And by the way, they are sticking to it alive. Funston was born in Ohio. When he was about 2 years old, his parents moved to Kansas, where he had his first schooling and "grew up with the country." He entered college, but thought it wasn't worth while to take a degree. His life there was of a desultory character, enlivened with frequent excursions into the outer world in search of the whereabouts for continuing his studies. In the course of these excursions he was at one time a schoolmaster, and at another a collector of tickets on the Atchison, Topeka and Santa Fe railway, in which capacity he has a record for "bouncing" recalcitrant cowboys who refused to pay their fares. He acquired thereby a reputation for "getting the drop" on a man with his "gun" that subsequently stood him in good service. Returning to college, he wandered through the curriculum in an aimless way, vastly preferring fishing to study at any time of his life.

It does not matter much what a boy studies if only he is industrious and of an acquisitive turn of mind. And what, ever one learns, it is pretty sure to come into play at some period of life. There was Spanish, for instance, which Fred Funston began in order to win the ap-

probation of a beautiful senorita, a "coed" at the university he attended. He got interested in the language and kept up his study until he became proficient, long after the girl in question had disappeared from his ken and was married to some other man. That his knowledge of this language has served him well since in Cuba and in the Philippines nobody can deny.

Funston left college because he didn't see any use in continuing and secured an appointment as botanist in an exploring expedition to the Rockies because he wanted to go, and his father, then a member of congress, had a "pull" with the administration. This was in 1889, and he liked the wild, roaming life so well that two years later he became a member of an exploring party sent out to penetrate the famous Death Valley in California. The perils of the trip may be inferred from the fact that he is the only one of that party who is alive and well. In 1892 he was sent by the secretary of agriculture to Alaska to make a botanical report on the Yukon and the since famous Klondike region. He was too busy to look for gold, although he camped on the very site at which gold was subsequently discovered and yielded millions to the lucky prospectors. With only an Indian guide, he penetrated to and beyond the Arctic circle, and on his return to the Yukon floated down that river in a canoe, after having passed the winter of 1893-4 with a missionary amid the desolate wastes of snow.

The next year found him in Mexico trying to establish a coffee plantation near the Isthmus of Tehuantepec, having thus swung around the circle from the arctic to the tropics. Looking about for some new country to conquer, Funston perceived what he thought might be a fine opening for a young man down in Cuba, where the patriots were fighting for existence. He obtained a commission as captain from the junta in New York and set forth to find the Cuban army. After some 18 months of hard fighting he emerged at Havana with a pierced lung, a shattered arm and a crushed hip, only to be arrested as an insurgent by the Spaniards and clapped into prison. By

hidden away just under the ridgepole of the homestead. Those pencils today are in demand for other purposes than writing.

Here is the history of London's bridges in brief: Westminster bridge was begun in 1738 and finished in 1746; Blackfriars bridge in 1760 and finished in 1770; Waterloo bridge in 1811 and opened on June 18, 1817; Southwark

Iron bridge in 1814 and finished in 1819, and the present London bridge in 1824, being opened on Aug. 1, 1831.

The sovereign has never been a popular coin in India. Among the wealthier natives who have not yet learned to trust the yellow metal as currency the idea of turning a sovereign into ornaments, such as earrings and brooches has recently become a fad.



BRIGADIER GENERAL FUNSTON.

HERE AND THERE.

In Chicago the metal polishers have established a co-operative shop. The police of Berlin are to have a chance to make speed when it is necessary. The city has agreed to supply them with bicycles.

The license fee for commercial travelers in Denmark is \$42.55 for the first

firm and \$21.44 for every additional one good for one year. There will be between 50,000 and 100,000 additional acres of land devoted to rice culture in the south this year. A large area of sulphur deposit has been recently discovered in the transcasian territory of Siberia, which sec-

tion is also rich in cotton, coal and petroleum. The increase in Costa Rica's exportation of bananas has been from 2,500 bunches in 1891 to 2,450,165 bunches in 1900. The value of the 1900 crop was \$1,357,382 in gold. The lottery evil, although without any real sanction of law, existed for a long time in Canada, particularly in

the city of Montreal. It was suppressed by law Jan. 1, 1901. One-fifth of the inhabitants of London are overcrowded in their habitations in the eyes of the law. A Russo-Chinese bank has just been opened in Colombia. The headquarters are in St. Petersburg, with numerous branches in European and Asiatic Russia, but the one just opened is the first

branch establishment in India and Ceylon. A curious discovery was made in Concord, Mass., recently. In the attic of the Thoreau homestead was found a quantity of lead pencils, all bearing the stamp, "Thoreau & Son." The naturalist and his father once made lead pencils for a living, and for years a great store of their completed product was