

ALL RUN BY ELECTRICITY

COLUMBIA COTTON MILLS ATTRACT MUCH INTEREST.

Graphic Description of the Olympia Mill, the Largest and Finest Establishment of Its Class in the World—Negro Labor Not a Success—Pennsylvania Skill Credited with Installing the First of This Electrically Driven Machinery.

Special Correspondence of The Tribune.

Columbus, S. C., March 15. THE BUSINESS interests of Columbia are in the hands today of progressive men. Many northern capitalists have come here and allied themselves and their interests with the younger up-to-date southern-born business men, many of whom are sons of former Confederates, who, forgetting past differences, join hands with their northern neighbors in developing their city and surrounding country, in manufactures, agriculture and commerce. The board of trade, the chamber of commerce, the board of health and the city councils are made up of this young blood, the average age being 35 years. From this business element the hand of friendship and good will is ever extended to the new comer, who is received with old time southern hospitality. The two social clubs comprise the best elements of the city, and visitors for either pleasure or information will be cordially received, royally entertained and made to feel at home. We were especially indebted to the secretary-treasurer of the Merchants and Manufacturers' club, William Gist Duncan, also to chairman of city schools, A. F. Funderburk, and representatives of the chamber of commerce, for polite attention and valuable memoranda.

THE COTTON INDUSTRY. We submit the following concise statistics pertaining to the cotton mill industry here, courteously given me by Editor N. G. Gonzales, of the State, one of the three daily papers published in Columbia, and regarded as the brightest, ablest and best papers in South Carolina. His statement has since been verified by the Manufacturers' Record; Columbia is the largest manufacturing city in the south today. She runs 240,000 spindles to Augusta's 180,000 and Charlotte's 70,000. In 1891 she had but one cotton mill. The Olympia is the largest cotton mill in the United States under one roof, with 104,000 spindles and 2,400 looms. It makes print cloth only, and cost \$1,570,000. The Granby has 65,000 spindles and 1,500 looms and cost \$900,000.

THE POWER PROBLEM.

The power problem is by far the most interesting feature of the cotton manufacturing industry in Columbia. The use of electricity as a power in cotton mills has heretofore been considered a luxury and an economic extravagance, impracticable; but the results accomplished with the two power plants here, are simply marvelous and are having an important influence upon the utilization of water power elsewhere in the South. The development of electric power to run the several cotton mill and other establishments, is introducing new activity, and new social problems into the life of Columbia, and the South, even the whole country and the world, is anxiously watching the experimentation with electricity as the coming motive power. This experimenting commenced with the Columbia cloth mill here about six years ago. And that mill is about the first in the world to have its machinery driven directly by electricity. Within the last three years four other mills through the enterprise of W. B. Smith-Whaley, and an eastern manufacturer have been built and equipped with electric motive power—the Granby—the Palmetto, the Capital City, and the last, the palatial Olympia, the finest mill in the world. Columbia today is the most important center for electrically driven textile mills in the world. The results of her experiments have led to the creation of three mill power plants, one in each of both Manchester, N. H., and Lowell and Holyoke, Mass. The Columbia duck mill, built in 1895, consumes as much cotton as 200,000 spindles can use and cost \$1,150,000. The Richmond has 20,000 spindles and cost \$100,000. It makes sheetings. Three other smaller mills make sheetings. The Capital City, built in 1900, makes print cloth. It has some 6,000 spindles. Has \$100,000 capital. The Palmetto, built in 1898, makes print cloth, has some 3,000 spindles and cost \$100,000 capital. The duck mills manufacture every kind of duck, up to 110 inches in width. The total capital invested in the cotton spinning industry in Columbia is \$4,750,000. Five mills are run by electricity. The Capital City, the first large mill run by electric power in the United States.

The Columbia, Granby, and Palmetto mills are run by electric power from a 10,000 horse-power electric plant owned and operated by the Columbia canal company, a corporation of New England capitalists that taps the Congaree river. The Olympia and Capital City mills are operated by electricity generated by steam, coupled right on the steam engine. The Richmond mill is run by steam. The electric light system and also the Electric City railway, are run from the surplus power of the Olympia. These mills employ from 4,500 to 5,000 hands, all white people. All this has been accomplished since 1894. The great electric power-house with its eight huge turbines of 1,250 horse power each, (making in all, 10,000 horse power), is one of the sights of the city and the pride of the man. It is a progressive mill men and manufacturers, a delegation of whom recently came from New England and other states north to see this novelty. Annual interest centers in this huge enterprise, as well as the New Olympia, which is the creation of W. B. Smith-Whaley, to whose memory their enterprises backed by Northern capitalists, Columbia is greatly indebted.

AN UNIQUE MILL.

Having viewed most of the large mills in New England and the North, I feel warranted in saying the Olympia, excels them all in size, elegance and massiveness, with the most advanced ideas in construction and equipment. The Olympia is no insubstantial brick barn, with no conveniences, but as handsome as an office building outside and furnished inside far better than many hotels, with such plumbing and ventilation

as are used in the finest modern city buildings. In view of the unique character of the whole plant, a brief description of its principal features based upon personal observation, as well as data furnished me by the secretary of the Manufacturers club, William G. Duncan, and the architect and builder, Mr. Smith-Whaley, seems appropriate, and may be of interest especially to manufacturers.

Imagine a palatial work shop, the main building of which is 553 feet long and 151 feet wide, with four stories of eighteen feet in the clear with two large clock and bell towers, beside three two-story buildings in the rear adjoining the mill, 40x140 feet each for machine shops, engine room, boiler room, and also draft room 40x40. In the engine room are three large vertical engines with cylinders 20 and 42 inches in diameter by 42 stroke, each weighing 224,000 pounds, and each with a fourteen foot fly wheel, that weigh 60,000 pounds. These engines with 165 pounds pressure are capable of furnishing 3,000 horse-power each, or 6,000 horse-power in all which form the generating plant. Each engine is especially designed for operating with electric generators. The speed is 132 revolutions per minute. The power plant, which is the chief feature of interest in the mill, fits on to the center of the mill in the rear. In the boiler room are twelve vertical boilers of 300 horse-power each. There are twenty-two, 150 horse-power motors used to apply the power through the mill. They are suspended from the ceiling, below the floors on which the machinery is to be operated, the short belts running through holes in the floors. There are other and smaller motors that drive the pumps to feed the boilers, run the elevators, operate the machinery in the machine shops, run the hot air fans in winter and the cold air fans in summer.

Draft is secured artificially by the use of large fans. The absence of heating and shading is one of the novelties of the Olympia. It is the only mill in the country so constructed. In fact, electricity is utilized at every point as a labor saver. It carries the ashes from the furnace, it pumps the water into the 800,000 gallon reservoir and also supplies the mill village with pure spring water.

IDEAL SHOP CONDITIONS.

The floor of the engine room is of mosaic concrete and marble. The walls to a height of six feet, are wainscoted with Georgia marble and the ceiling is of stamped steel and absolutely fire proof. A twenty-ton three horse-power motor electric crane, capable of handling any of the machinery, travels the entire length of the engine room, thirty feet from the floor. The switch board is a very elaborate one, of Tremont marble some 57 feet long and about half the length of the 120 foot engine room, and from it all the thirty motors are controlled, each independently from the others.

The machine shop is of interest, having a very complete equipment of improved tools, so that almost anything in the shape of repairs or new construction, can be made right at the mill. Beneath the shop is the heating and ventilating plant.

The condenser and air pumps are located in the basement of the boiler room, and the floor is cut away over them. They consist of three sets, each of 3,500 horse-power, this large capacity being necessitated by the high temperature of the water in summer. The mill is equipped with a humidifier system; a lighting system of 300 arc lamps; combination freight and passenger elevators; and a clock system, including a tower clock with four electric dials, and twelve electric clocks, distributed through the mill, all controlled by a master clock in the engine room, which also operates the watchman-detective system. Modern sanitary plumbing, with mosaic and marble work in the closets and passenger elevators to carry the help too and from the upper floors are provided. The Olympia employs fifteen hundred hands, all white, the experiment with colored help having proved a failure. The product of the mill is 8 1/2 grain cloth, 35 1/2 inches wide. The Olympia runs 104,000 spindles and 2,400 looms. The spindles are the best Woonsocket & Press company manufacture, and the looms are the improved Draper, 40-inch pattern.

DOES IT PAY?

The question is asked, will such a palatial mill pay its stockholders? Mr. Whaley, who is an expert architect, builder, mill-engineer, and has worked for different companies, says it will. "The cost of running this enormous plant and the other plants here, electrically, is less than by steam," says he, "the cost of repairs in the steam mill here, has been twice as great as in the electric mill, though the latter is much larger, and because of the more uniformity of electric driven machinery it produces four per cent more goods to the machine."

A NEW ENGLAND VILLAGE.

A unique feature here is the New England village connected with these mills. This mill is a huge massive of the mill, cost \$200,000. The streets are laid out with double rows of shade trees. The houses of the operatives are superior in character, and have all the modern improvements. Every sanitary precaution is taken. A special hospital with free nursing and free attendance is provided, also free schools are specially conducted for the mill children. In order to interest the operatives in church services, President Whaley of the management and preacher give \$2,500 if any denomination would subscribe \$2,500 church. This offer was accepted by the Episcopal church. In the way of amusement for the operatives, free vaudeville entertainments several evenings each week and free Sunday concerts are provided by the Electric railroad which is under the same control as the mill with a connecting line run into the village. Mr. Whaley expects with his company and employees, to command the best class of operatives in the market and thus secure the best results. The manufacturers and owners of cotton mills throughout the country are watching this feature of the experiment with much interest, as also the use and economy of electricity, as a motive power.

CONGRATULATIONS.

Scranton, The Electric city, which first made practical use of the electric railway in the United States will no doubt be glad to congratulate Columbia, the Palmetto city, in having the finest and largest plant of up-to-date

cotton mills in the world and upon being the first to introduce electricity as a motive power in these mills. However, Honesdale justly claims the credit of furnishing the master-mechanic in the person of Richard Thrisk, one of her citizens, who while South in 1884 and 1885, installed the very machinery into the Columbia Duck Mill, now electrically used, that has made that institution so famous as the pioneer electric mill of the country.

The National Elevator Works, of Honesdale, in which so much Scranton capital is invested, and of which Mr. Thrisk is now superintendent, also claims the honor of being the pioneer elevator company in the United States, to equip their factory throughout with electric motors for the transmission of power, and that too, within 300 yards of the very place where the first locomotive that ever ran on the American continent—"The Stourbridge Lion," made that wonderful exhibition August 8, 1829.

J. E. Richmond.

A Chat with Buffalo Bill

IT IS no wonder that people go more or less dazed over "Buffalo Bill."

It is no wonder that we as a nation are proud of him and give him with adulation and dollars whenever he comes our way. The writer of this is prepared to burn incense at his shrine to the end of the chapter and to look back with unusual pleasure upon the chat with the very distinctly a representative product of America.

He didn't greet one of his humble admirers yesterday with a war-whoop, neither did he give an exhibition of marksmanship by shooting at a target off the bell boy at the Jersey. He sat down and talked very mildly and politely and didn't seem to have any guns or swords immediately at hand.

The general public thinks of Colonel Cody as the majestic figure of a magnificent horse, the swiftest, locks falling upon massive shoulders, the head bare, with a regal gesture, before the applause of thousands, the superb grace and dignity of one who has done things in the world. It thinks of him as the great Indian fighter, the brave soldier and the man who has perhaps received more attention and admiration from those of lofty estate on this continent and abroad than any other American. It is often sad to see the real person in professional life similar to that of Buffalo Bill, at long range, but in his case it may be a satisfaction to know that he is twice as interesting at near acquaintance.

The first impression one obtains is that of his entire simplicity. He is not eloquent regarding his own deeds, the marks of favor he has received from those the world calls great, nor of his successes. Get him started on the subject of some of his heroes and he waxes eloquent enough, but he is modest indeed as to himself. One is not disenchanted at close range with regard to his appearance. Those who seldom see him dismounted have no idea of the stately presence of this man with his more than six feet of stature and the nobly poised head on shoulders as erect and square as if they belonged to a soldier of twenty-five. His fine silky hair, although touched with the snows of years, curls in boyish tendrils about his temples and neck, and his eyes, so full and kindly in their glance, have in them the fire of youth. How many years young he is it is unnecessary to tell, but although he talks of age coming the listener feels that he will never be old.

He has the fine, delicate complexion of a woman despite the decades of frontier exposure and his present mode of life. Colonel Cody would allow his name to be fixed to some cosmetic as being "the kind I always use," he would reap a fortune beyond that annually rolled up with the assistance of Indians and Teddy's Rough Riders. Those who think of him as the bluff buffalo hunter, the Indian scout, whose keen eye it was impossible to elude, scarcely reconcile with their tales of him, the polished gentleman with the long, slender hands and the ease and grace of a patrician, in the manner of one trained in kindly courts.

Yesterday he wore the brilliant souvenir of a famous buffalo hunt of nearly three decades ago, when he rode like the whirlwind of fate over the plains of the West. The war of Russia. The souvenirs of that great chase are wonderful heads of buffalo, blazing with diamonds and silver, sleeve buttons and scarf clasp. They are treasured as the gift of the people of the United States. Cody is recalled with pleasure by the Colonel Cody carries many other marks of favor of monarchs and princes, but none are more valued than these splendid jewels.

But if you want to stir up Colonel Cody's enthusiasm simply mention the name of General Miles, that is all it needs. If the general were the proprietor of a great show, he would not require any other advance agent or press manager than this devoted friend and admirer.

"Why!" exclaimed the colonel, his blue eyes flashing like steel, "he is the greatest general of them all. There was never anybody to compare with him, in those respects. He fights with his head; that's the way Miles fights. While the other fellows depend on tactics and numbers and bullets, Miles uses his brains. Why, that man knows the condition of every horse that every soldier rides. He knows his men and their equipment to the finest detail. He knows which company is best fitted to go here or to be sent there; and then he knows the route, every inch of them. He can tell which route is best for the artillery and where the cavalry can make fastest progress. He knows which one to pick out for the infantry and then, he doesn't leave anything to chance."

"The scouts are sent out here, there and everywhere, and he doesn't allow his troops to be surprised and cut up in ambush. Now, when you see Miles is in command, I tell you, and his voice rang out like a call to arms, 'I tell you there's a leader, and he will be our next president. They can't keep him down. I haven't any kick against this administration, it's all right, and I tell you, too, that man Hanna is a smart fellow. He's all for McKinley, and it was for his interest to keep Miles down. They've done it, too, but they can't keep on doing it. Some of the people in the country don't appreciate Miles. They call him a parlor soldier, but he is the greatest general we have had in many a year, and he can endure hardships which most men would shrink from, and it was to Miles that every Indian chief from Sitting Bull down has had to surrender."



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Means Smart Clothes.



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"In that winter of 1876, after Custer was killed, there was a great cry that some of the soldiers were to be sent home. I was worn out and exhausted and they didn't want to spend another winter out there, for they couldn't endure it. Miles said, 'I will stay on the frontier with my men, and stay he did, with a little company of infantry. It was a bitter, cruel winter, but he slept under neither roof nor canvas when there weren't roofs and canvas for his men, and he endured frightful privations for months without a complaint. More than that, he so planned an attack on a hostile band of the Cheyennes of war, that he wrote the message and sure enough he got a promotion for bravery and discretion."

"No, I'm about done," said Colonel Cody in response to a question as to his future plans. "I believe this is my last trip. I don't mean to die a showman. I want to leave some other memory behind me—the memory of having done something for my fellow man."

"But you have done something," his listener protested, "you have made a unique spot in the records of your country. You have done much for the younger generation in an educational way; you have shown the world what a brave man can be and do, and the world loves a leader, one who can control men, and do things, not merely dream them."

"Do women like that, too?" he said wonderingly. "I know men feel that way. I know men will follow one in whom they have confidence into the remotest of distant lands, because they realize that he has left nothing to chance; he has planned for their protection at every point, but they lose heart with one who goes in hap-hazard and in whom they can't rely."

Then he continued: "I've picked out the place where I shall be one day, beneath that marvelous western sky, under the sun and the stars. The town of Cody is my pet and my pride. I have reclaimed it from the desert. I am planning to give comfort and happiness to a multitude of dwellers in what was once known as the arid lands. "Why, don't you know that beyond the Missouri river lies the richest half of this country? The earth is teeming with precious minerals, and now that irrigation is reclaiming the waste places it can be made a heaven. It costs \$14 or \$15 an acre to fertilize farm land in Pennsylvania. For that amount you can buy forty acres of land with perpetual water of your own there where you have no master but God and do not have to pray for rain, and where no walking delegate comes along and tells you to strike. "Initially, Colonel Cody paid a high tribute to the citizen soldier. "It was not the officers," he said, "who won San Juan Hill. It was not even Teddy Roosevelt, brave as he was and patriotic, but it was the volunteer soldier, the individuality of the men, who knew little of tactics and of military

traditions, but who saw some men on top of that hill and got there and took them."

With regard to the West Point affair, the colonel expressed himself as greatly pleased with the stand taken by the government. "I believe in trained soldiers," he declared, "but there is no need of training them to be bullies and thugs. If there is any place where a man needs to be kind and unselfish, it is in the army. Discipline is all right, but there is no call for a boy to be brutal to another because the other happens to be a new boy."

Colonel Cody is certainly a type of something which is swiftly passing from our race and our country. He is distinctly Western, for very early he was taken from Iowa to Kansas, "bleeding Kansas," where the fiercest stages of fight for free soil were in progress, and it is a singular fact that his father was the first man to lay down his life for the negro, as he was killed in one of the wild battles for a free state in 1856.

"While the people go to his show and look with interest on his Indians and his gallant cavalymen, the greatest attraction of all would be lost if the man so long known as 'Buffalo Bill' did not himself ride at the head of the column. He is a unique figure and one that the world would miss if he stepped out of it forever. So, long may he live to cause the heart of the sordid American public throbb a bit faster and may he finally realize the dream of his heart and spend a peaceful, beautiful old age in that ideal city of his building at the gateway of Yellowstone Park."

GONE TO THE VERGE.

From the Detroit Free Press. "This young man was not so confident as he was, and his ideas of friendship are not so exalted. Yet he takes it philosophically and is willing to place a heavy credit in favor of experience. "I started in a small way," he tells, "and I had no idea that my business would expand rapidly. But I find a good many leaks and drains. Of course you know Jones. He is my friend and knows about horses. So when my one horse went lame I consulted him as being the one friend I had who, I thought, could help me out. "Pretty bad shape," he said as he looked the nag over. "Send him on your delivery wagon, don't you?" "I need him or some other horse and asked Jones what I could get for the lame one. He looked him over, felt his legs, examined his eyes and teeth and finally said that, being a friend of mine, he'd give me \$40 for the horse. I took it. That same afternoon he sold the horse for \$80, a fact I learned about a week later. "Now," said Jones, "I'm not the man to leave a friend in a scrape. I'll just rustle around and find you another horse."

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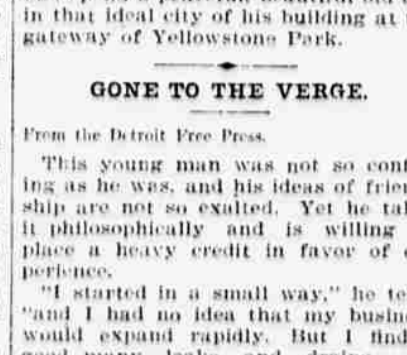
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