

**PHANTOM CURVE.—DENVER AND RIO GRANDE RAILWAY.**

The romantic scenery of Colorado and New Mexico, traversed by this line of railway, which runs southward from Denver, along the base of the Rocky Mountains, finding a Pass over these to the foot of the Sierra de San Juan, thence descending from Taos to Santa Fe and the Rio Grande, has been celebrated by travelers. In the neighborhood of Denver, or a few hours' journey from that city to the south, is some of the finest mountain scenery. At the "Garden of the Gods," visitors are astonished to find themselves in the midst of a hundred towering piles of white and red sandstone, moulded into a variety of fantastic shapes, but mostly rising to spires higher than any cathedral that ever was built. The president of the railway company, General Palmer, has a villa in Glen Eyrie, a secluded recess walled in by cliffs of imposing height.

Monument Park, at no great distance, is a place of the same natural character, where the multitude of rock pillars and rock pyramids resemble the crowded monuments of a vast cemetery, and have a very curious effect. The San Juan section of this line, on the other side of the mountain range, presents terrific gorges and singular rock formations.

**AN EXTRAORDINARY BOILER EXPLOSION AT ORLEANS, FRANCE.**

On Monday, April 28, the city of Orleans was set in a flurry by a serious accident that occurred under curious circumstances, and the consequences of which might have been appalling.

Toward seven o'clock in the morning, a steam engine, mounted on a cart and belonging to Mr. G. Colas, a manure farmer, had stopped in Illiers Street in front of the house of Mr. Lebordais-Grenet, a grocer who lives in Porte-Saint-Jean Street, but whose front entrance is in the former street. The gang of workmen who were employed to operate the apparatus were just getting ready to go to work, when suddenly a fearful explosion was heard. The generator, which stood vertically at the rear of the cart, breaking the bolts that held it firmly fixed to the iron frame of the vehicle, shot up all in one piece, like a sky rocket, parallel with the front of the house before which the vehicle was standing. Reaching the roof (a distance of about ten meters from the ground), the enormous and heavy mass came in contact with the cornice, and, although it but slightly grazed it, the shock was sufficient to cause it to deviate from its course, describe a curve over the block of houses between Illiers and Porte-Saint-Jean Streets, and fall in a blind alley off the latter, at thirty-five meters to the south of its starting point.

In its fall, the immense projectile caught the gutter and cornice of a house numbered 45, inhabited by Commander Coutant, and fell upon the shafts of a dust cart whose driver had left it standing in the alley in order to lead his horse to a farrier's in the neighborhood. It makes one shudder to think of the massacre this explosion might have occasioned, without speaking of the material havoc that it might have caused. It will suffice to say that if Mr. Lebordais's store had been struck, a fire might have at once broken out in his petroleum reservoirs. In fact, at the moment of the accident, a regular storm of fiery cinders, bolts, and various debris swept Illiers Street and the ground floors of the neighboring houses. Breaking the window panes, these fragments entered a fruit store in which there were three persons, and also started a fire in the house of Mr. Coudiere, former Municipal Counselor of the city of Orleans.

Two young children who were seated at the window of the first story of house No. 126 Illiers Street merely received a fright, as the projectiles did not rise as far as to them. As for the five workmen in Mr. Colas's employ, four of them were slightly harmed or burned, and one was severely wounded. The cart, which was violently overturned upon the ground, carried along in its fall the horse that was harnessed to it, and, strange to say, neither was harmed.

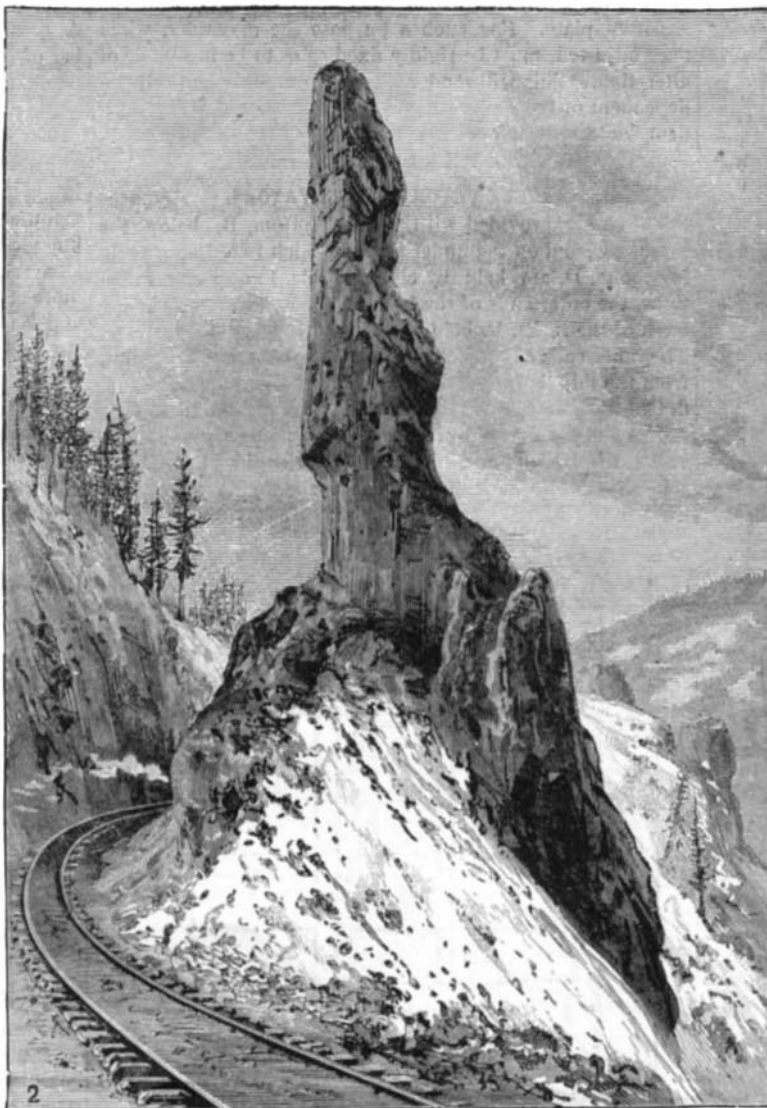
The generator, less its firebox and smoke stack, fell, as we have said, upon the pavement of Saint-Jean Alley. Its tubes and its jacket were as flattened and crushed as if they had been made of lead, while the pressure gauge and the glass tube of the water level were intact. The different parts of the firebox had been scattered in all directions, and the smoke stack had fallen at about seventy meters from the place of explosion, and in a northeast direction.

These facts seem so improbable, as a whole and in detail, that we have thought it indispensable to call upon photo-

graphy to preserve a souvenir thereof, in order that we might back up with material proofs the faithful account of it that we have just given.—*Leon Dumuys, in La Nature.*

**Extension of Cotton Spinning in England.**

Undoubtedly the manufacture of cotton goods is now being conducted on very close margins for profits, as is the

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case with most other staple products at the present time. Those who think, however, that England is losing any of its old time prominence in this branch of business, would do well to look at the facts before making rash conclusions. The spinners there plan new mills and extensions from September to April, as the general rule, that the building operations may be conducted in the more favorable summer months. Figuring on the extensions of the cotton manufacturing plant for the present season, after this plan, the *Textile Manufacturer* places the increase, with the new companies formed, at one and a half million spindles in Lancashire, Cheshire, and Yorkshire. This is a larger number

solid matter is present. Professor Dewar said that there is some truth in Frankland's hypothesis that the luminosity of flames is due to highly condensed gases, and a great deal of truth in Davy's original hypothesis that the luminosity is due to liberated particles of carbon or other solid matter in the majority of cases. He next proved that the luminosity of the electric spark increases under extra pressure of air, but said that the result might be explained by a variety of hypotheses, so that its real cause is difficult to unravel.

The lecturer further stated that some hydrocarbon compounds enter, like paraffine, into combination with other substances with difficulty; others, like olefiant gas, acetylene, and naphthaline, are easily decomposed, or easily enter into new combinations. In illustration of this he experimentally proved that a small quantity of bromine will quickly absorb a large volume of olefiant gas, and also that bromine readily unites with naphthaline, giving off vapor of hydrobromic acid in the act.

Professor Dewar remarked that in scientific research it is sometimes necessary to use a flame free from superheated steam. Such a flame can be most readily obtained by burning a jet of chlorine and hydrogen, mixed near the nozzle of the burner, for safety, and care being taken to carry off the hydrochloric acid gas, which is the product of the combustion.

**Red Toning.**

The following is the formula employed successfully by M. Balagny for the red toning so much in vogue at present. Dissolve 1 gramme of chloride of gold in a liter of distilled water, then add 200 c. c. of a filtered solution, made at boiling point, of 30 grammes of borax and a liter of water. The toning bath is brought up to the temperature of 70° or 80° Centigrade, and then the prints are plunged into it for thirty or forty seconds only.

They are afterward fixed in hypo containing one to two per cent of ammonia.

**BOILER EXPLOSION AT ORLEANS, FRANCE.**

of cotton spindles than Lowell now has, or any other city in the United States except Fall River.

On the night of July 7, the steam tug H. C. Coleman exploded its boilers at Elliott's Landing, on the Missouri River, seven miles from Booneville, and all the crew, three white men and four negroes, excepting Captain Thompson, were killed. The boat was torn to pieces and the pilot house was blown two hundred yards away.