

transferred to silk, so that the latter material appears to be covered with delicate lace.

—Mrs. Sarah A. Dorsey, of Louisiana, has recently been elected a member of the New Orleans Academy of Science, an honour never before bestowed upon a woman.

—Only 1,923 miles of new railway have been opened in the United States during the past year. This is less than half the mileage of 1873, and but little more than a quarter of the mileage of 1872.

—The astronomical clock used by the English party which took observations of the transit of Venus at Cairo, will, it is said, be presented to the Egyptian Government as a mark of appreciation for the kind offices rendered.

—A series of experiments have lately been made by the Russian Government with reference to the use of electricity for the head lights of locomotives, a battery of forty-eight elements making everything distinct on the railway track to a distance of more than thirteen hundred feet.

—It is proposed to erect a new bridge across the St. Lawrence at Montreal for the accommodation of the Northern Colonization Railway. Sir Hugh Allan is the moving spirit of the enterprise, which it is estimated will require three years for its completion. The new bridge takes its name from St. Helen's Island, which will be utilized as a part of the crossing from shore to shore. Starting from the high level of Sherbrooke Street, in the eastern part of the city, a viaduct supported by piers and pillars will cross the streets near the river at the height of one hundred feet above them. Between St. Helen's Island and the north shore there is a little flat island called Isle Ronde, which will also be made part of the crossing. The north channel, between St. Helen's Island and the north shore, will be crossed by a suspension bridge at a height of one hundred and sixty feet above the water, allowing the tallest masts to pass under it. The suspen-

sion bridge will have three floors; the upper one carrying a double railway track, the middle floor being for ordinary road vehicles and pedestrians, and the lower floor for street cars, which will keep up cheap transportation for passengers between the city and south shore. From the island to the south shore the bridge will be flat, supported by piers. St. Helen's Island itself is to be made a public park, and from its airy situation and the fine view all around it ought to be capable of being easily made a very pleasant summer resort.

—Garments may be rendered waterproof, at least so says the English *Mechanic*, by immersing them for twenty-four hours in a solution made by dissolving one ounce of alum and two ounces of sugar of lead in a gallon of pure rain water.

—The English and French Governments are taking steps toward securing observations of the total eclipse of the sun, which will be visible in the East Indies on the 6th of April. Disraeli's Government has granted \$5,000 toward the enterprise. The calculations of the astronomers show that no eclipse of the sun will equal this in interest until 1893, when it will be seen in Central and South America.

—The Right Hon. W. E. Forster, in a public speech at Bradford, alluding to the Centennial Exhibition at Philadelphia would afford a good opportunity for discussing the patent laws. He did not think the withdrawal of the proposed Reciprocity Treaty would greatly injure Canadian trade with the United States. —“As brittle as glass” is henceforth to be as obsolete a simile as “As safe as a bank” has unfortunately become; for glass is no longer to be fragile, but tough, and this singular property is imparted by the simplest process, the discovery of which was accidentally made by a French farmer. Red-hot glass by being cooled or annealed in oil, has its toughness increased to such a degree that, supposing in its original state the pane