

ter, and as durability must be considered, it is agreed that this umbrella must be fashioned of rock. This structure would probably only add to the impressiveness of the statue and indeed it is feared by some that the Sphinx itself will sink in the estimation of sight-seers when it shall be overshadowed by this massive stone umbrella.

THE OLD MAXIM THAT SILENCE IS GOLDEN would seem to be disproved in some cases as those cited by a writer in a London periodical of recent date. This writer gives several instances where the value of important inventions has been lost on account of the fact that the secrets of construction have been withheld. An instance is cited of the invention of an explosive called fulminate. The inventor was a scientist named Sawbridge, and he was offered \$20,000 by the German government for the secret of his new process. He refused this offer on the ground that his home government should have the first option of purchase. This was about to be done when news came that his laboratory had been blown up and the inventor killed. No records were ever found, and no one has yet succeeded in duplicating this invention. An Italian priest, about half a century ago, discovered a way to make stained glass equal to that made by the ancients, but was found dead in his workshop and no one ever discovered the secret of his skill.

THIS SAME WRITER RECORDS OTHER INTERESTING instances of valuable information withheld in this way. He says: "The only man who has yet been successful in taking photographs in color was a martyr to his discovery, the secret of which is lost. Some years ago Dr. Herbert Franklin of Chicago submitted a number of colored photographs of a somewhat crude nature, it is true, to the leading American scientific institutions and the encouragement he received was such that he built himself a laboratory, proof against the wiles of spies, at a cost of \$12,000, wherein to perfect his invention. In the preparation of his plates he used a charcoal fire, and one day when at work he omitted to open the ventilators and was found asphyxiated. He had refrained from divulging his secret to any one, and in consequence, although some unfinished plates that hid the secret remained, the way they were prepared is a problem that has baffled scientists to this day. Another victim to his secret was Adams, the inventor of tellium, the greatest discovery in the metals of the age. Adams was confident that a metal could be produced which, although as hard as steel, was only half its weight and price, and after five years' experimenting with an electrical process tellium was the result. The invention was taken up throughout America, and orders for thousands of tons of the metal began to pour in from the leading railway companies. But it was too late. The enormous mental strain he had undergone, coupled with the sensation of finding millions within his grasp, took away his reason, and he was confined in an asylum. He left no records to explain the process, and no amount of persuasion drew the secret from him, which perished locked in his brain when two years later he died a helpless lunatic."

ACCORDING TO A BULLETIN ISSUED BY the geological survey Russia has produced more petroleum than the United States since the year 1897. Since that year the Russian production has been increasing over 12 per cent a year. The figures of production for the two countries are as follows: In 1897, Russia, 54,000,000 barrels; United States, 60,000,000 barrels; 1898, Russia, 62,000,000 barrels; United States, 55,000,000 barrels; 1899, Russia, 66,000,000 barrels; United States, 57,000,000 barrels; 1900, Russia, 76,000,000 barrels; United States, 64,000,000 barrels; 1901, Russia, 85,000,000 barrels; United States, 69,000,000 barrels. The average annual increase during the five years for Russia was 12.57 per cent; for the United States 2.89 per cent—there having been a small decrease in the production of the United States in 1897 and a large decrease in 1898. The great difference between the petroleum of the United States and that of Russia is shown in the statistics of refined petroleum. Of the total world's production of crude petroleum in 1901, 165,385,733 barrels, the United States produced 69,389,194 barrels, or 41.97 per cent, and Russia produced 85,168,556 barrels, or 51.49 per cent; and yet of the total production of refined petroleum of all grades in 1901, estimated at 1,500,000,000 gallons for all countries, the United States produced 911,120,944 gallons, or 67.0 per cent, and Russia 414,122,990 gallons, or only 27.7 per cent.

AS A GENERAL RULE DEPARTURES FROM the beaten track are not looked for in European journalism, but it seems that Paris has

something to offer that is distinctly new. This is described by a writer in the New York Times as follows: "The latest is a journal for beggars, which has been started for the purpose of disseminating useful information among the mendicant fraternity, and the price of which is 5 cents a copy. At a glance it would seem as if this charge was rather high, considering the supposed straitened means of its readers, but presumably the editors know what they are about. The advertisements furnish interesting reading for beggars temporarily out of a job, though it is difficult to understand how the advertiser could expect to receive an answer to the following: 'Wanted—A blind man who can play the flute a little.' Probably some unfortunate dumb man will tell his blind confrere of the vacancy. Here is another sample of an advertised vacancy which requires awkward qualifications: 'Wanted—A lame man for the seaside; one without a right arm preferred.' In addition to 'ads.' of this kind notices of forthcoming christenings, burials and birthdays of rich people are printed, so that the beggar may know where to go to prosecute his vocation with success."

AN INTERESTING COMPARISON OF THE number of judges administering the law in different countries is given in a London publication of recent date. The British Isles have 22,609 judges. Of this number 464 are salaried, 22,145 are of the "great unpaid." France has 7,803, all salaried, besides the court of cassation which contains 49. Germany has 8,186 judges, all paid. The European part of Russia contains 3,180 salaried judges, all paid. The European part of Russia contains 3,180 salaried judges. Statistics as to the number of judges in the United States are difficult to obtain as the number of judges must be reckoned in the federal as well as in the state system of courts. Of federal judges alone there are 134. This writer says that the country with the largest number of judges in relation to its population is Ireland, which contains 111 judges to each 100,000 of estimated population. France has but 20 to the 100,000; Italy, a highly criminal nation, but 38½. The least judge-ridden of all is Denmark, with nine and a fraction; the next best is Holland, with 13.3-4. A curious thing is that Norway, with nearly 64 judges to the 100,000, is the nearest of all to Ireland, but Sweden has only some 37½. England has 54½, roughly, a judge to each 1,800 men.

THE COAL STRIKE IS NOW PRACTICALLY ended and the enormous losses entailed therewith may be more correctly computed. It is conceded by all that this has been the greatest coal strike in the history of the American continent. A writer in the Chicago Chronicle for October 19 makes the following comment on the situation: "Thousands of miners out of work, children suffering for the necessities of the hour, women without clothing, pantries without food, homes without fuel, stores without customers, railroads that have lost millions because of inoperation of its lines—these and other things contributory to a strike such as has been in existence since May last have done much toward drawing public attention to mining affairs hitherto little understood by the average reader."

THE FAMOUS BORGHESE PALACE AND park has been purchased by the Italian government for the sum of \$660,000, which is said to be less than half its value. It will be remembered by newspaper readers that J. Pierpont Morgan recently tried to buy this palace, which is famous throughout the world for its antiquities and its art collection, but he was not permitted to purchase it. The palace and grounds will now be thrown open to the public which for many years has had access to the grounds only under restrictions that proved irksome. When the Borghese family were involved in financial difficulties their creditors took possession of the estate and debarred the public the use of the grounds. This raised such a popular clamor that a demand was made that the government buy the entire estate and this purchase has been consummated. It is reported that the king has given \$60,000 toward the purchase and the park will be called after the late King Humbert.

THE COAL CONSUMERS OF THE COUNTRY will not be greatly cheered by a statement recently made by a writer in the New York World. This writer pointed out that an official of the Delaware, Lackawanna & Western railroad says that by working day and night this road expects to haul 25,000 tons daily; it will handle 750,000 tons per month of thirty days. As the Delaware, Lackawanna & Western railroad handles almost 15 per cent of the total output, an estimate of the maxi-

mum capacity of all the coal roads places the total hauling capacity at 5,000,000 tons per month. The World writer added: "Various estimates place the average consumption for the six months beginning November 1 at 7,500,000 per month, or 50 per cent more than the maximum hauling capacity of the railroads. No doubt strenuous efforts will be put forth to meet this emergency, but there are always difficulties besetting transportation in winter, and it is doubtful whether the average tonnage can be maintained, and while immediate demands may be in a measure met, the famine will be most felt during the middle and later winter months. No doubt manufacturing will be curtailed and consumption in other ways cut down. If so, this will bring suffering to the wage-earner, not alone on account of reduction in his earnings, but with the restricted output all manufactured products will be widely felt. This is indeed a gloomy outlook, and I dread the consequences and hope that somebody better informed can compile a more optimistic 'estimate' of what is before us this coming winter, but I fear the mischief has been done and there will be much trouble."

THE CITY OF PHILADELPHIA BOASTS OF the most wonderful church organ ever constructed. This instrument consists of nine distinct organs distributed over four manuals and pedals, two great organs, two choirs, a swell, solo, echo and wave and chancel pedal. It is said that each of these divisions is a perfect organ and in mechanism and mechanical skill exhibited it is a marvel as well as in the varieties of musical tone produced. This organ is in process of construction and when finished will cost about \$50,000.

THE RECENT VOLCANIC DISTURBANCES IN the West Indies have caused a general revival of interest in the changes that occur in the earth's surface through volcanic agencies. Concerning the recent outbreak in Martinique and St. Vincent islands, Dr. Herbert E. Gregory, professor of geology in Yale university, is credited with saying: "The whole chain of islands in the Caribbean sea is undergoing a change from island to continental structure, as is Japan. Earthquakes, volcanic eruptions, etc., will continue till this is completed. In time the whole chain will be a new continent, connected by land surface throughout." Another opinion on the subject is given by a noted geologist who claims that the islands of the West Indian chain are gradually enlarging and also rising to a higher level, and that if this upheaval continues the water between the islands will eventually be replaced by dry land. These changes, however, would probably require millions of years for their completion, so the subject is one of purely scientific interest at present.

THIS SAME WRITER, AFTER DESCRIBING the different volcanic forces that are contributing to the change in these islands, draws this interesting conclusion: "Should a West Indian continent ever be formed, in the ages to come, it would be simply a restoration. Geologists maintain that the islands, about 1,000 in number, extending from near the coasts of Florida and Yucatan in a wide curve down to and along the northern coast of Venezuela, are but the remnants of a once extensive prehistoric continent, the greater part of which was submerged. Should a new continental formation be effected, it would comprise the greater and lesser Antilles, the islands near Venezuela, including Trinidad, and possibly the Bahamas, the combined area of which at present is 92,641 square miles of actual land, with such increments as would be yielded up by the sea, which would doubtless be very extensive. The Gulf of Mexico and the Caribbean sea would then be merely great salt lakes. So serious a geological rearrangement would obviously have a remarkable influence on the climatic, geographical and political conditions of that section of the world."

THE WONDERFUL PART WHICH ELECTRICITY plays in the world of industry has recently been increased by the invention of a process whereby half-tones made from photographs can be sent by telegraph. The invention that makes this possible is called the electrograph and according to advices from New York its initial test is to be made in that city. It is said that by the use of this machine reproductions of half-tone photograph engravings can be flashed over a thousand-mile circuit, and every photographic detail of the picture can be preserved. The same dispatch reports that Edison and Tesla, who recently witnessed a private test, were outspoken regarding the achievement and revolutionary character of the electrograph.