

MISCELLANEOUS.

Report of the Secretary of the Interior.

"As the Commissioner Patents reports directly to Congress, it is unnecessary to present a review of the operations of that Bureau. There is one point, however, on which I deem it my duty to offer some explanation.

The Industrial Exhibition which was opened in London in the month of May, naturally attracted much attention in this country. It was the first occasion in the history of the world, when all the nations of the earth were invited to make an exhibition of their natural productions, and the results of labor in all the departments of industry.

Believing that great advantages would accrue to the people of the United States from having an agent present at this interesting display, who was competent to understand and describe all the objects of interest which might be exhibited, I authorized Mr. Charles F. Stansbury, an intelligent officer connected with the Patent Office, to go to London and discharge that duty.

He accordingly spent several months in making a minute examination of the most choice and valuable products of nature and art which were presented; and I have no doubt that his report, which is now in course of preparation, will be a valuable and interesting document. He was instructed to inform himself particularly in regard to all the natural productions, implements, machinery, manufactures, and processes of manufactures, works of art, and other objects of interest, peculiar to each nation, so as to impart the knowledge thus acquired to the people of our country.

As all the latest improvements in machinery and the useful arts were there displayed, a careful description of them will be of great value to the Patent Office, in enabling it to decide whether machines and other alleged inventions and discoveries are really new and useful, so as to be proper subjects of patents, or copied from those exhibited at the London Fair. The farmer and mechanic will also be benefited by obtaining information as to the most approved implements, tools and processes employed in their respective occupations; and the general reader cannot fail to be interested and instructed by an accurate and authentic account of the most extensive and varied collection of useful objects which has ever been brought together from the different quarters of the world. It is proposed to append this report to that of the Commissioner of Patents; and, if Congress shall deem it proper, to publish it with the document. It will doubtless greatly enlarge the circle of useful information, and give a new stimulus to the enterprise and industry of the people.

[We have selected the above extract from Mr. Stewart's Report. It is all that we have in it relating to the Patent Office. We certainly expected that he would have said something about his intention of appropriating part of the Patent Office Building for offices belonging to his business, but he has perhaps prudently deemed it best not to mention the subject at present.

The object for which Mr. Stansbury was commissioned as mentioned above, was commendable in every sense of the term, yet it was impossible to disguise the fact, that the whole spirit of the Patent Office, with some honorable exceptions, is to find objections to urge against granting patents for new and useful inventions, rather than extending encouragement to them. We regret to see such a spirit; it is anything but wise, politic, or just. When Mr. Stansbury's Report is published, we will be able to say more upon this subject.

Women in Cochín China.

In Cochín China, as in all countries where civilization has made but little progress, the women are doomed to the most laborious occupations. A traveller in that country says the women may be seen standing from morning to night, in the midst of pools of water up to the knees, occupied in transplanting rice. They undertake the labors of tillage, and the various employments of agriculture—while those who live in seaports, besides the management of their domestic concerns, undertake the superintendence of the various branches of commerce. They even assist in constructing and repairing the cotta-

ges—they conduct the manufactures—they ply the boats on the rivers, and in the harbors, and carry the articles of produce to market.

The greatest blessing physically to these poor women would be some labor-saving machines. When the wheel was first invented, it was intended by the inventor—a Cappadocian shepherd, to lessen the severe toil of his countrywomen. Genius is benevolent, even those inventions relating to war, have been the means of lessening its horrors.

How the Bushmen Obtain Ostriches.

A favorite method adopted by the wild bushman for approaching the ostrich and other varieties of game, is to clothe himself in the skin of one of these birds, in which, taking care of the wind, he stalks about the plain, cunningly imitating the gait and motions of the ostrich until within range, when, with a well directed poisoned arrow from his tiny bow, he can generally seal the fate of any of the ordinary varieties of game. These insignificant looking arrows are about two feet six inches in length; they consist of a slender reed, with a sharp bone head, thoroughly poisoned with a composition, of which the principal ingredients are obtained sometimes from a succulent herb, having thick leaves, yielding a poisonous milky juice, and sometimes from the jaws of snakes. The bow rarely exceeds three feet in length; its string is of twisted sinews. When a bushman finds an ostrich's nest he ensconces himself in it, and there awaits the return of the old birds, by which means he generally secures the pair. It is by means of these little arrows that the majority of the fine plumes are obtained which grace the heads of the fair throughout the civilized world.

How to get Rid of Cockroaches.

Mr. Tewkesbury, of Nottingham, Eng., in a letter to the *Manx Sun*, says:—"I forward an easy, clean, and certain method of eradicating these insects from dwelling houses. A few years ago my house was infested with cockroaches (or clocks as they are called here), and I was recommended to try cucumber peelings as a remedy. I accordingly, before bedtime, strewed the floor of those parts of the house most infested with the vermin, with the green peel, cut not very thin from the cucumber, and sat up half an hour later than usual to watch the effect. Before the expiration of that time the floor where the peel lay was completely covered with cockroaches, so much so that the vegetable could not be seen, so voraciously were they engaged in sucking the poisonous moisture from it. I adopted the same plan the following night, but my visitors were not near so numerous—I should think not more than a fourth of the previous night. On the third night I did not discover one; but anxious to ascertain whether the house was quite clear of them, I examined the peel after I had laid it down about half an hour, and perceived that it was covered with myriads of minute cockroaches about the size of a flea. I therefore allowed the peel to lie till morning, and from that moment I have not seen a cockroach in the house. It is a very old building; and I am certain that the above remedy only requires to be persevered in for three or four nights, to completely eradicate the pest. Of course it should be fresh cucumber peel every night."

[A far better and more certain remedy for cockroaches is a powder made by Mr. Lyons, of this city (New York). From experience, we say this; as it has to our knowledge proved itself to be what it is named, the "Magnetic Cockroach Exterminator."

Progress of Our Railroads.

The first railroad ever made in this country was only commenced twenty-three years ago. It was a short road in Massachusetts, three miles in length, called the Quincy Road, but there was no locomotive then. The first railroad in the State of New York was the Mohawk and Hudson, sixteen miles in length, now called the Schenectady; it was commenced in 1830, and finished in 1833—only eighteen years ago. On the first of January last there were in operation, in the State of New York, one thousand four hundred miles of railroad, costing \$56,200,000. There was nearly the same number of miles in Massachusetts; while in the entire of the New Eng-

land States, the miles amounted to 2,644, costing \$96,945,450. The total in operation in the United States, in January, 1851, was 8,797, costing \$286,455,078. Since then a sufficient number of miles has been completed to increase the grand total to 10,000 miles, and the amount of investments to \$320,000,000. In June, 1836, the writer of this took eight days to go from Schenectady to Utica; he was detained three days by a break in the canal; he went the same distance last year in three hours. What a change!

Recent Foreign Inventions.

ORNAMENTING FABRICS.—Mr. Puckeridge, of London, recently patented the following singular method of ornamenting fabrics suitable for the ornamentation of furniture, ladies' dresses, and other articles of fabrics. The improvement consists in covering transparent or semi-transparent materials, such as prepared gut, or skins of animals, weazens, bladders, goldbeater's skin, or other membranous materials, either alone or in combination with other light fabrics, such as silks, satins, and fine linens. These are to be ornamented with gold leaf, silver leaf, or any other metallic leaf, or with gold, silver or bronze powders.

The material or fabric to be covered with metallic leaf or powder is prepared or coated with gold size, japanners' gold size, burnish gold size, or other similar adhesive matter, or composition, after which the gold, silver, or metallic leaf, or the gold, silver, or metallic powders, are applied to the prepared surface, and will be found to adhere firmly thereto. The gut, skins, bladders, or other thin transparent membranous parts of animals, so ornamented with gold, silver, or other metallic leaf, or powder, may be used alone, and applied for the purpose of ornamentation; and in this state, also, may be spun or twisted into music strings; but if required, the membranous material (either before or after it is provided with metallic covering,) may be attached by means of size or other adhesive matter or composition, to light woven fabrics, such as silks, satin, fine linens, or similar fine fabrics. In this state it will be found peculiarly applicable for ornamenting curtains and various kinds of furniture or other articles.

The membranous material thus provided with a metallic surface, when attached to woven fabrics, will be found to have on both sides all the appearance and lustre of the metallic substance with which it is coated, and will possess the advantage of strength and tenacity, so that the material may be employed for ornamental purposes, such as ladies' dresses, hangings, and other like purposes.

FEATHERS FOR ORNAMENTING DRESSES.—Mr. J. P. Booth, of Cork, Ireland, recently took out a patent for employing portions of the feathers of birds for the purpose of decorating or ornamenting the surfaces of woven fabrics. The feathers of the turkey are what the patentee prefers to all others for the purpose; and the portions of them which he employs, are the downy substances from near the root or quill of the feather; these are stripped off with a portion of the cuticle or horny portion, and when a sufficient quantity of these are collected, they are arranged upon the face of the fabric to be ornamented, and there secured by cement.

The feathers may be arranged according to their colors, so as to produce a pattern or design.

We are indebted to our invaluable exchanges, "*Newton's Repertory of Arts*," "*Patent Journal*," "*Mechanics' Magazine*," and other "*London Journals*," and to the "*Genie Industriel*," &c., of Paris, for the above, in substance.

Suspension Bridges.

MESSEURS. EDITORS.—There is an error in the *Scientific American* of Nov. 29th, which I did not discover until to-day:—it is not W. Serrell, C. E., of this city (who, so far as I know, must be myself), but it is my son, Edward W. Serrell, also of this city, who is building the suspension bridge over the River St. Johns, New Brunswick, a little way above the city of the same name. This bridge is intended to be similar, in general character, to that constructed by the same party across the Niagara, between Lewiston and Queenston, or 849 feet span; but that at St. Johns will be

about 622 feet span. These, however, are only the beginnings of iron bridges on this continent, as the public will learn in due time.

Yours, respectfully, Wm. SERRELL, C. E.
New York, Dec. 5, 1851.

Setting Teeth on Pivots.

The following remarks from the Dental Recorder will be interesting to many of our readers:—

"Of all the modes hitherto adopted for supplying the place of natural teeth with artificial substitutes, we must regard this method of pivoting, when properly performed, as the very best. Of course, these remarks can only apply to the incisor and cuspid teeth. And why it is regarded by so many in the profession as an unimportant and almost useless operation (unless because of its extreme simplicity), we are at a loss to determine. We may be laboring under some error or misapprehension upon this subject, and if so, we would thank the profession to set us right. But according to our observation, the practice has become quite too common, of using plates, where teeth might be pivoted much more advantageously, both with respect to their comfort and utility, as well as cost to the patient.

Instances are by no means rare, where strong and healthy fangs have been removed, to make way for a plate, where the front teeth only were substituted. This, we can but regard as decidedly wrong—and, under the circumstances, mal-practice. For who will contend, where three or four front teeth are needed, and the fangs are strong and healthy, that pivot teeth, are not much the best in every particular.

We hold it indisputable, that if teeth could be as well secured without plates, as with them, plates would not be used by the profession. But we submit to them as to a necessary evil, for the want of a better mode of setting teeth, except in the cases above referred to. But, in such cases, the following are among the advantages of pivot teeth:—

When well fitted, and firmly inserted, they are most like the natural organs of any artificial teeth that can be used.

They are more useful, and more healthy. They interfere much less with the organ of taste, and are more cleanly.

The constant accumulation of particles of food and other matter around plates to which artificial teeth are attached when worn in the mouth, serve to render them offensive and unhealthy, and the strictest attention to cleanliness can only prevent the disagreeable consequences here alluded to.

But pivot teeth, when nicely adjusted to a healthy fang are much less troublesome in this regard, and present no obstacle to the gustatory sensations. But that which constitutes the greatest objection to plates for front teeth, is the use of clasps to retain them in their proper positions, as these clasps or bands will inevitably destroy the teeth to which they are secured, and thus impose upon the patient the absolute necessity of procuring a new set of teeth, in a very few years. Whereas, pivot teeth would have answered a better purpose—prevented the loss of those teeth to which the clasps were secured, and could have been furnished at less expense.

For these reasons, therefore, we must deprecate the practice of removing good healthy fangs to make way for a plate, when the front teeth only are to be substituted, believing as we do, that pivot teeth, properly inserted, are altogether preferable, under such circumstances.

The duration of teeth inserted in this way, must of course depend upon the circumstances of the case with each individual. But we have found their average under favorable auspices, to be some ten or twelve years. Of course, where so much depends upon constitutional health, and personal care, this period must vary to some considerable extent.

Submarine Petrifications.

We learn from a French paper that a vessel's mast has been discovered in the sea near Gibraltar, buried in the sand at the depth of about twenty fathoms. It was completely petrified, and is supposed to have been in the water at least a hundred years. It was found by some Gibraltar fishermen, and has been sent to the British Museum.