

Miscellaneous.

(Special Correspondence of the Scientific American.
LONDON, May 23th, 1851.

The number of visitors to the great exhibition has regularly increased, but at no time has there been the least appearance of a crowd. The funds are quite respectable being nearly \$100,000 per week. A new and very excellent plan has been projected by the executive committee, it is nothing less than a series of scientific lectures within the building. Prof. Cowper is to lecture on the section of machinery, and Prof. Ansted (the author of a very good work re-published in the United States, termed the Gold Seekers' Manual) is to lecture on minerals. Other eminent lecturers are also engaged. This is one of the most agreeable and sensible plans, to my view, yet proposed. The different departments are not yet finished, many are still fitting up, and there is still an opportunity for some of our countrymen to come forward and fill up some more of ours.

I have not heretofore said anything about the jewelry displayed, excepting the great diamond, I take great pleasure in examining the works of jewellers, and here have had a feast; never have I seen the like, never expected to see it, and never will again in all likelihood. Diamonds, emeralds, pearls, rubies &c., flash in gorgeous grandeur—what wealth is covered by Paxton's glass and iron walls.

There is one case of artificial crystals in the British department, which claims more than a passing notice. It contains imitations in crystal of all the largest diamonds in the world. The largest and most valuable of these is the ugliest and most uninviting in its appearance; it is one of the Portuguese crown jewels, and from its astounding value, which is set down at £5,644,000, it has never been entrusted to any diamond merchant to cut or polish. In size it resembles a large turkey egg, with a piece notched out of the side: it is semi-transparent on the surface, and weighs 1,680 carats. The great Russian sceptre diamond is next in point of size and value; its weight is 779 carats, and its value, being without a flaw, and of very fine water, \$4,654,000. The Great Mogul rose diamond is estimated at £632,000, and the Portuguese round brilliant, worth £369,000. Russia has also another ovoid brilliant, worth £297,000; and there is a little flat smooth-faced Persian diamond, with the fanciful name of "The Sea of Glory," set down at £34,000. There is also the great German brilliant, valued at £155,000; and another finely-cut Persian gem, called "the Mountain of Splendor," valued at £145,000. The Pigott diamond, sold by Rundell and Bridge for £30,000, is cut in very small facets, and is of an oval form. France possesses the great Pitt or Regent diamond, worth £150,000; an English gem, called the Hornby diamond, sold to Persia for £5,000, and afterwards obtained by France; and the third great French diamond is of a sky-blue color, and is estimated at £150,000.

One company, Hunt & Roskell, display diamonds enough to purchase some lines of steamships. I saw one bouquet of diamond flowers, such as anemone, rose, carnation, lily, &c., and all of them modelled from nature. The ornament is divided into seven different sprigs, on elastic stems, each perfect in design; and the complicated flowers can be separated by a mechanical contrivance. It contains 6,000 diamonds, the large ones weighing 10 carats; and it would require 1,000 of the smaller to weigh one carat. Ear-rings of diamonds, brooches, bracelets, rings, &c., such a flashing of gems is enough to turn the heads of all the lovers of trinkets in Christendom. The collection of oriental rubies is large, and some of them of great size. One of an oval shape is engraved in *intaglio*. It represents the figure of Minerva, preceded by two serpents with twisted tails, and is the work of some ingenious artist of the 15th century. The specimens of sapphire are the largest exhibited in the exhibition; one of them of a light blue steel color and of great lustre, weighs 180 grains, and another of a beautiful

indigo hue, 118 grains. Many of the sapphires are set in gold swivel rings; an engraved oriental topaz is evidently a specimen of early antique cutting.

A specimen of aqua-marine is exhibited, and is said to be the largest in the world; it weighs nearly six ounces, is of a beautiful sea-green color, and extremely well cut, with seven rows of facets in front. Many of these stones of a smaller size are curiously engraved, and there are also numerous specimens of jargoons, hyacinths, chrysolites, oriental garnets, topaz, tourmaline, Mexican and Hungarian opals, and other gems, which indicate the vast extent of the collection, and the enormous sums that have been expended in bringing it together. The whole is rendered complete by the exhibition of oyster shells containing the pearls, rough diamonds from the Brazils, and similar specimens from the mines of Golconda and Borneo, which I must say look very different from the polished gems, for I would pass them by as bits of dirty glass. The wondrous powers of human art and ingenuity in working these insignificant looking pebbles, and bringing out their brilliancy and lustre, is strikingly exemplified in the contrast between the native or "rough diamond," and the highly finished and dazzling gems that adorn the regal looking coronets beside them. The Good Book says, "as iron sharpeneth iron, so doth the face of man his fellow," and truly it may be said of the diamond. The dust abraded from one is employed to abrade and polish another—nothing else will do; even the friction of two rough diamonds is resorted to to get rid of the preliminary roughness on the well known principle of "diamond cut diamond." The process of polishing is then proceeded with. The diamond is firmly imbedded in a piece of metal—a circular piece of metal called the skive, is then charged with diamond powder and oil, and by steam or other power is made to revolve about 2,000 times per minute. The diamond is applied to this rapidly revolving surface, great care being used to place it at the required angle, and for every facet the diamond has to be removed, and again imbedded in the metal.

I noticed a valuable set of shirt buttons valued at \$1,500 only, they were Golconda diamonds. Happy the fellow who does not scorn bone or the mother of pearl after such a sight. The jewelry in the English department is nearly all from London, but not made there. Birmingham is a great place for the manufacture of cheap trinkets.

There is an interesting display of Irish jewellery, in harps, fibulae, and other Irish ornaments, composed almost entirely of Irish materials, including black bog oak, Irish gold, pearls, emeralds, &c., carved cups with designs from the celebrated Donnybrook Fair, bracelets, and brooches, in arbutus wood, mounted with Irish diamonds. One of the most elegant articles in this collection is a fibula of fine Irish gold set with large emeralds, with a figure of Antigone, in relief, in the centre, presented by the citizens of Dublin to Miss Helen Faucit, a celebrated living actress. The price might keep 100 from starving for a twelve month, but taste is everything.

The French department, in jewelry, displays the greatest taste and skill, at least I think so. There is displayed, a crown, sceptre and sword of State made by the jeweller who manufactured the coronation trinkets of his sable majesty, the Emperor of Hayti. The false jewelry of the French looks about as well as the genuine kind. The skill displayed in the fabrication of such things is wonderful. I at least could not tell the difference, the eye was pleased with the real and the fictitious. But I must draw my letter to a close, not, however, without a few words of application like the winding up of a sermon.

I have been forcibly impressed with what may be called a new kind of wealth, the amount of which is incalculable, and is of a kind which we do not know much about in America, I mean the wealth of jewelry. Among the nobles of Europe, at the courts and levees, the amount of jewelry displayed is wonderful, and the one who makes the greatest display makes some noise. There is, therefore, a struggle to possess noted articles of

jewelry, and the stocks are of a different nature, but at the same time they are just like those of railroads or any other kind. Jewels have their value like other things, and that value is their market price. I suppose the jewelry displayed here, will amount to as high a valuation as \$100,000,000. This may appear a large sum, but one single diamond, the "Mountain of Light" is estimated to be worth \$15,000,000 itself. Another named the "Derri-Noor," (sea of light) is valued at \$2,500,000. Here then, we have nearly eighteen million of dollars invested in two jewels, two small bits of things, both not quite the size of a decent pigeon's egg. I should like to have the price of them in available cash, if I would not build a line of steamships, that would make the world stare, then I would be willing to give my remains to the doctors.

EXCELSIOR.

Patent Case—Planing Machine.

U. S. Circuit Court.—In the United States Circuit Court at Boston, June 5th, in the case of W. W. Woodworth vs. Wm. Livingston et al, Judge Woodbury confirmed the report of the Master, overruling the defendants' exceptions. This was a bill in equity to restrain defendants from using the plaintiff's Planing Machine, and to compel them to account for the profits. The Master reported in favor of the plaintiff, and that the defendants pay \$1 for each thousand feet of boards planed, with interest on the sum found to be due. B. R. Curtis for the plaintiff, Joel Giles for the defendants.

Improved Method of Churning.

MR. ERROR.—The ladies in this neighborhood have a mode of churning butter which I think is a superior one. They take the cream off the milk with as little of the latter as possible—put it into an ordinary churn, and to every quart of cream they put in a gallon of water (not quite blood warm), and churn it in the usual way. The butter comes sooner, is much sweeter, and keeps better. J. E. M. Warrior Stand, Ala.

Mechanics Convention at Atlanta, Ga.

The mechanics of Georgia intend to hold a convention at Atlanta on the 4th of July next, and invite those of South Carolina to participate in the deliberations of the Mechanics' Convention at that time. The object is to consult upon the best means calculated to elevate the dignity of mechanical pursuits in Georgia, and the South generally.

American Telegraph in Sweden.

Mr. Wm. Robinson, of this country, is about to erect and manage, in Sweden and Norway, a number of lines of Magnetic Telegraph. He has been granted the privilege for the enterprise, which is to endure for fifty years; and a company, including several heavy capitalists in this city and Stockholm, has been formed under his auspices. A charter for a similar undertaking will, it is expected, be obtained from the Government of Denmark, and it is therefore probable that one of our countrymen will be the agent in establishing within the States named at least 3,000 miles of telegraph.

Colt's Repeating Fire Arms.

A case of Colt's pistols at the great exhibition attracted the attention of the British officers. They say, "these are just the kind of arms for the war in Kaffirland," and they recommend their introduction into the British army. Colt, the inventor, manufactures his pistols at Hartford, Conn., and employs 300 men now, but will soon employ 200 more.

To Cure Corns.

Pare the corn, and rub the part with sweet oil. This should be done on getting up in the morning, and just before stepping into bed at night. In a few days the pain will diminish, and in a few days more it will cease, when the nightly application may be discontinued.

Corns may be softened for paring by washing them with milk warm water in which some soda has been dissolved.

The American machine works at Springfield, Mass., have divided 33 per cent to their stockholders. They sold \$80,000 worth of steam engines last year to go south of New York.

Pearl Soft Soap.

It is only a few years since the process for making this elegant soap became known in France. It differs little from Toilet Soap, and owes its beautiful aspect merely to minute manipulations, about to be described. Weigh out 20 pounds of purified hog's lard on the one hand, and 10 pounds of potash lye at 36° B. on the other. Put the lard into a porcelain capsule, gently heated upon a sand-bath, stirring it constantly with a wooden spatula; and when it is half melted, and has a milky appearance, pour into it only one-half of the lye, still stirring, and keeping up the same temperature, with as little variation as possible. While the saponification advances gradually, we shall perceive, after an hour, some fat floating on the surface, like a film of oil, and at the same time the soapy granulation falling to the bottom. We must then add the second portion of the lye; whereon the granulation immediately disappears and the paste is formed. After conducting this operation during four hours, the paste becomes so stiff and compact that it cannot be stirred; and must then be lightly beaten. At this time the capsule must be transferred from the sand bath into a basin of water and allowed to cool very slowly. The soap, though completely made, has yet no nearly appearance. This physical property is developed only by pounding it strongly in a marble mortar; whereby all its particles, which seemed previously separated, combine to form a homogeneous paste. The perfume given to it is always essence of bitter almonds; on which account the soap is called almond cream, *creme d'amandes*.

Castile Soap.

Real castile soap is composed of soda 9 parts, oily fat 76.5 and water 14.5; but it is not made by these proportions of ingredients, because of the alkali employed being in an impure state. Thus supposing common barilla be used, it will in all probability require half as much weight of barilla as the fat required. For the white curd soap it may require one-third part by weight of crude alkali, and as this seldom contains more than 20 per cent. of real pure soda, it reduces the quantity of alkali in the soap, when complete, to from 6 to 10 per cent.

English Imitation of Castile Soap.

Soda 10 parts, oily fat 75, water, &c., 14.3. It is seen that this contains rather more alkali than the former.

Marine Soap.

This soap possesses the peculiar property of forming a good lather with sea water; hence its name. It is made by boiling together soda lye with cocoanut oil. It contains an immense quantity of water; its composition when complete being soda 4.5, oil 22, water 73.5 in every hundred parts.

The Sting of a Locust.

Near Westchester, Pa., last week, a young man named Hamorton, was severely stung on the hand by a young locust, in consequence of which the arm soon became much swollen up to the shoulder, attended with considerable pain. The general impression seems to be that the locust has no sting. The female, nevertheless, has a spiral sting, and some deaths have been ascribed to wounds inflicted by it.—[U. S. Gazette.]

[Dr. Smith denies that locusts are in the least dangerous.]

A Simple Way to Make Hydrogen Gas.

MESSRS. EDITORS.—For the benefit of your numerous readers, knowing them to be scientific and practical men, I would say, a cylinder of any dimensions, made of zinc, with copper wire, well insulated, coiled loosely around it, and one end soldered to the zinc, the whole immersed in water slightly acidulated with sulphuric acid, will evolve hydrogen gas in great abundance, which, if passed through turpentine or benzole, will burn very brilliantly,—it is a cheap expedient and easily tried.

Boston, Mass.

T. B. R.

We see the mechanics of Lafayette, Ind., are making efforts to reususcitate their Institute. We say, "gentlemen, never say fail."