



## LIST OF PATENTS.

ISSUED FROM THE UNITED STATES PATENT OFFICE,

For the week ending August 14, 1849.

To Ira Carter, of Plattsburg, N. Y. for improvement in self-acting Cheese Presses. Patented August 14, 1849.

To Arthur Huston, of Bristol Me., for Dynamometer Log to indicate the velocity of vessels. Patented August 14, 1849.

To Benjamin M. Townsend, of Quincy, Ill., for improvement in Road Scrapers. Patented August 14, 1849.

To Charles Walker, of Brooklyn, N. Y., for improvement in Rice Hullers. Patented August 14, 1849.

To William S. Wilder, of Boston, Mass., for improvement in machines for Ruling Paper. Patented August 14, 1849.

To Edwin Hills, of Cincinnati, Ohio, for improvement in Steam Tables. Patented August 14, 1849.

To Samuel Pratt, of Cohasset, Mass., for method of uniting Metallic Plates to each other. Patented August 14, 1849.

To Daniel P. Bonnell, of Tecumseh, Mich., for improvement in the process of Flouring. Patented August 14, 1849.

To Horace Boardman, Plattsburg, N. Y., for improved arrangement of Steam Boiler and Furnace thereof. Patented August 14, 1849.

To Edmund Blunt, of Brooklyn, N. Y., for improved arrangement of Filters for Steam Boilers. Patented August 14, 1849.

To Wm. R. Hitchcock & Co., of Waterbury, Conn., Assignees of Peter Kirkham, of Birmingham, Eng., for improvement in Covered Buttons. Patented August 14, 1849.

## ADDITIONAL IMPROVEMENT.

To Ely Ellicott & Samuel A. Abbot, of Philadelphia, Pa., for improved Lever Scale for Canals, Rail Roads, &c. Originally Patented February 6, 1849. Additional improvement annexed, August 14, 1849.

## For the Scientific American.

## Electricity as Known to the Ancients.

Antiquity obscures the real origin of most discoveries; and in consequence the glory has been attributed to different times and persons.

Facts dependant on the agency of electric influence seem to have been known in the very infancy of philosophy; and the first phenomenon is said to have been observed by Thales, of Miletus, the first of the hellenic septad, as nothing earlier is on record than his observation, that amber when rubbed has the property of attracting light bodies. To him also Apuleius ascribes the discovery of the cause of thunder and lightning. (See Apuleius, Floridor. p. 361.) Theophrastus afterward noticed the attractive power of amber, and describes the tourmalin as possessing the same property; (v. Theophrast. Peri Lithon.) and remarks, on the authority of Diocles that "they attract not only straws and leaves, but also thin pieces of copper and iron." In the Geoponic Eclogues, (lib. xv. cap. i. amber is said to possess the more general faculty of attracting to itself all light bodies. Pliny, Solinus, and Priscian, make similar statements; and Aristotle, Opitian, and Claudius, were fully acquainted with the benumbing effects produced by the touch of the Torpedo. (v. Mem. Lit. et Philos. Soc. Manch. v. 3. p. 378; Origine des Deconvertes atribues aux Modernes, par M. Dutens; Gent. Mag. July, 1785. p. 522; Gouzet's Origin of Laws, Arts, and Sciences, v. iii, B. iii, ch. ii, Art. iv.)

Amber is an inflammable vegeto-mineral, of a yellow color, vesino-vitrious texture, conchoidal fracture, glassy luster, is perfectly homogeneous, transparent to translucent, and negatively electric by friction. It is the *elektron* of the Greeks, *electrum* of the Latins, *andarun* of the Arabians, *ambar* of the Persians, *anbara* of the Ethiopians, and of

the Hebrews, *bernstein* of the Germans, Danes, and Swedes, *amer* of the Belgians, *burstin* of the Poles, *gyanta* of the Austrians, *ambre* of the French, *ambar* of the Spaniards and Portuguese, and *ambro* of the Italians. Now, most, if not all, of these terms were given to amber on account of its attraction property. *Elektron* is derived from *elko*, which signifies to drag along, to make to follow, to draw up, to attract. The Hebrew has also the same signification. The phenomena of electricity were therefore known from the time when these terms were formed and applied to amber. The Heb. term above makes amber and its property known in the time of Ezekiel the Prophet. (v. Ezek. i. 4.) The Greeks were acquainted with it several centuries before his time - (v. Hes. Sc. 142; Hat. 3. 115; Od. 4. 73; Soph. Ant. 1038.) The Gr. term is connected with *el-ektor*, the sun, to which Homer compares his amber, perhaps on account of its luminous appearance when excited.

Egypt, if not the birth-place, was the early protector of the sciences, and cherished every species of knowledge which was known or cultivated in remote times. It was the principal source from which the Grecians derived their information; and, after all its windings and enlargements, we may still trace the stream of our knowledge to the banks of the Nile.

The Egyptians had an inventive genius, and turned it to profitable speculations. Their Mercuries filled Egypt with wonderful inventions, and left it almost ignorant of nothing which could accomplish the mind, or procure ease and happiness. Here were the first libraries; and the titles they bore inspired the reader with an eager desire to enter them and dive into the secrets they contained. (Rollin. v. I. p. 186.) Here the Miltian Thales sojourned for some time, in the reign of Amasis, for the purpose of becoming initiated into the science of which the priests of Thebes and Memphis were the depositaries, and probably also visited Phoenicia, closely connected as it was with Chaldea, then another center of sacerdotal science. A. D. 642, Amru Benalaz marched his troops into Egypt, and the city of Alexandria became a prey to the fury of the Saracens. Its fall was marked by the destruction of its celebrated library, which the Ptolemies had enriched with so many valuable works, gathering from all parts of the earth, and numbering 700,000.

Here was treasured the learning and wisdom of ages; but the rigid sentence of the second caliph, fanatical Omar I., was executed by his general with blind obedience, and six months were barely sufficient for the consumption of this precious fuel. Every scholar, with indignation, has since deplored the irreparable shipwreck of the learning, the arts, and the genius of antiquity, caused by this unfortunate event. Egypt was eminent in her time; she was celebrated for wisdom of old, and her philosophers attracted the wise and inquiring of other nations. Thales she initiated in the arcana of Nature; and who will doubt that by Saracenic fury was destroyed the facts and principles of the science of Electricity as gathered by the ancients. Every nation that enjoyed the means of commerce with the Mediterranean, derived pleasure as well as profit from the merchandise of India; and few situations were more convenient for commerce than Egypt. A spirit of enterprise her princes encouraged, and from the ports of the Red Sea, vessels launched out in pursuit of new countries and new commerce. Some moved along the coast of Africa, some entered the Persian Gulf; others penetrated to the mouths of the Indus, visited the coast of Malabar, and reached the Isle of Taprobane. Thither the Phœnicians had previously sailed, but concealed their discoveries with a mercantile jealousy. Under the prosperous reigns of David and Solomon, the Jews fitted out fleets which sailed to Tarshish and to Ophir, and returned with such cargoes as diffused wealth and splendor through the kingdom of Israel. As soon as the Romans acquired a taste for the luxuries of the East, the trade with India through Egypt was pushed with new vigor, and carried on to greater extent. In time, therefore, India became the chief emporium

Spices and aromatics, precious stones, pearls and silk, were the great articles of general importation.

There the human race began its career of improvement; and from the remains of sciences which were anciently cultivated, as well as of arts which were anciently exercised in India, we may conclude it to be one of the first countries in which men made any considerable progress in that career. By the ancient heathen writers, the Indians were reckoned among those races of men which they denominated *Autochtones*; and the inhabitants trace back the history of their country through an immense succession of ages, and assert that all Asia formed one mighty empire. Many facts have been transmitted to us which clearly demonstrate that the natives of India were not only more early civilized, but had made greater progress in civilization than any other people. People contiguous to, and nations remote from India, seem to have been acquainted, from time immemorial, with its commodities, and valued them highly. (Gen. xxxvii. 25.) By every person who has visited India in ancient or modern times, its inhabitants, either in transactions of private business or conduct of political affairs, have been deemed not inferior to the people of any nation in sagacity or acuteness of understanding. From the application of such talents to the cultivation of science, an extraordinary degree of proficiency might have been expected. The Indians, accordingly, were early celebrated on that account, and some of the most eminent Greek philosophers travelled into India, that by conversing with the sages of that country, they might acquire some portion of the knowledge for which they were distinguished. By the inspired writers, the wisdom of the East was early celebrated, and great was the eagerness of all nations to obtain the productions of their ingenious industry. The electric fluid, which became apparent on the friction of their amber, could not have escaped their investigation. On account of its beautiful yellow color, its great transparency, and the fine polish it receives, amber was anciently considered the most precious of jewels, and was cut, as it is now, into articles of ornament and dress. The polishing is done by friction, by which it becomes very hot and highly electric. The artists are often seized with nervous tremors in their wrists and arms from the electricity. Hence, the workmen keep the piece but a short time on the wheel, and by alternating with a number of pieces, keep each of them cool and feebly excited. The strong electric virtue and attractive power which the amber acquired in being worked, must have induced the ancient Indians to try other experiments, from which they gathered principles and facts. In the island of Ceylon, where it is very common, tourmalin is known among the natives by the name of *tourmal*; and the Dutch, who first became acquainted with it in this island, gave it the appellation of *Aschtrikker*, from its property of attracting ashes when thrown into the fire. These facts and their discoveries were probably recorded in the Alexandrian Library, and lost during the period of conquest and the long night of ages. The electric fluid is coeval with the world; its presence pervades every substance; and its operations can hardly fail to show themselves wherever bodies are concerned. There is therefore unequivocal evidence, that many discoveries and improvements in electricity were made by the ancients many centuries before the Christian Era; that the subtle agent became an important branch of primitive science, and that much more was known by the ancients than we are willing to allow them, of those shining truths which are the peculiar boast of modern ages.

J. W. O.

## Scientific Men of France.

LE VERRIER, the astronomer, is a member of the assembly in France. In the first organization of the bureaux, Arago, in one, was elected chairman, and Le Verrier, Secretary. No two men dislike each other more, or disagree less in politics. The secretary has spoken in his bureau, and exceedingly well, against the propositions of amnesty for the insurgents of June, 1849, and the removal of martial law.

## Meteorological Knowledge.

Mr. E. Merriam, of Brooklyn, in a letter to a correspondent of our excellent exchange, the "Sentinel of Freedom," (Newark, N. J.), makes use of the following singular language:—

"I have been surprised at the remarks made by men of scientific acquirement in relation to lightning, and their apparent limited knowledge of its extensive influence. The thunder storms which have occurred the last three months within the field of my researches equal one to every forty hours.

Thunder and lightning have been favored agents of the Supreme Ruler of the Universe. At Sodom and Gomorrah we have no record of their being present at the destruction of the cities of the plain, and it does not become us to be wise above that which is written, by asserting that they were; but of the memorable transactions of Sinai, the sacred historian makes particular mention of the "thunderings and lightnings," and at a period a little prior to that great event, the writer of the book of Job, whose pen was guided by a hand obedient to a mind enlightened by the source of all knowledge, makes particular mention of the lightning of the thunders for which infinite goodness had made a way.

Previous to the publication of the remarks by Prof. Olmsted upon Electricity and Cholera, I forwarded to him a transcript of my lightning record, and also a memorandum in print suggesting that no case of destruction of human life by lightning had ever occurred where the person was engaged in supplicating the Throne of Grace, and none to persons who had reared a metallic lightning rod for the purpose of protection.

I have also published a suggestion that showers of falling stars, meteorites and Aurora Borealis, are the offsprings of earthquakes, which I think I show to be the case by a multitude of facts. Our earth has not been left by Him who made it and pronounced it to be "good," to take care of itself, but the same creative power that put it in motion still governs all its movements, even the minutest. \* \* \* \* It is the record of facts we want, to enable us to learn correctly what pertains to natural phenomena. The humble searcher after truth as it is in nature, has, continually opening before him, a wider and a still wider field for cultivation, and the results of his labors are according to the measure of his efforts and his confidence in the power which has in its keeping the great treasury of knowledge."

[The above must be taken with all due allowance, as being suggestions only, though very strange ones; concerning which we must say, "the most immoderate flight that ever poet took, when warm with wine, was moderate, conjecturing."]

## Tea Drinking amongst the Kalmucs.

The Kalmucs are distinguished at once for great powers of enduring hunger and thirst, and for a voracity that must be seen to be understood. Their original diet consists chiefly of tea. They prepare this beverage by boiling the brick tea, sometimes adding to it a lump of mutton fat, at other times a little roasted barley, or a handful of salt in a cauldron, whose various uses do not seem calculated to increase the relish of the compound, and filling it out into wooden cups, drink it almost boiling hot. A small portion of tobacco, smoked from a copper pipe, completes the frugal repast. Their chief animal food is mutton, of which they consume immense quantities whenever they can procure it sheep, cows, deer, horses, whether they have died a natural or violent death, are eaten alike, and require but little cooking.

## Important to Travellers by Sea.

An experiment was recently tried at sea to render the insipid water taken from the casks cool and refreshing, which proved entirely successful. A wine bottle was procured, which being filled from the casks and corked tightly, was lowered into thirty or forty fathoms of water by means of a lead. Upon being returned after five or seven minutes' interval, the temperature of its contents was found to be considerably reduced; in common parlance, it was almost as cold as ice water.