

Scientific American

NEW-YORK, JUNE 4, 1853.

The Progress of Inventions and Inventors.

What some call "great discoveries" are not produced every day, week, nor year, and yet the progress of invention is as steady as the march of time itself. It is certainly true that the boundaries of human knowledge are constantly extending, and this never could happen if new discoveries were not continually unfolded. A new discovery is something brought to light which had not been observed before, and a new invention is its application to a useful purpose. We are liable to overlook the progress that is continually making in science and art, and to forget the benefits which inventors have conferred and are conferring upon community. It is our duty to call in our wandering thoughts from time to time, and not forget the debt of gratitude which we owe, (and which is continually accumulating upon us) to the inventors who are living and acting among us. We cannot allude to and name all the men who are now thinking and working out plans and improvements, but the number is not small, and they all deserve to be highly esteemed and rewarded. We now see a message sent from one end of our continent to another in a few seconds; a few years ago it required more weeks than it now does moments to accomplish the same feat. Here we see a dangerous whirlpool destroyed by the electric spark and a few canisters of gun powder, and there we behold an iron tube thrown across a strait of the sea for the iron horse with his huge train to thunder through it. A short time ago an ingenious inventor discovered a method of sinking iron foundations for bridges by the simple operation of an air pump, and now we see the same principle applied in our cities for the most useful and sanitary purposes. In one place an inventor makes a loom and weaves the most intricate and beautiful patterns; in another place an inventor constructs a machine which performs the most delicate needle work, and at once relieves woman from the most tedious and confining household drudgery. We might mention many other important inventions which are now conferring blessings upon community, but our object principally, is to direct attention to their merits, as particular information can be obtained respecting their nature and operations by examining the columns of the Scientific American. What we hope from community is not to forget living inventors; let them have their reward while they are with us. It is too often the case that nations raise monuments to men when they are dead after having allowed them to suffer and die in penury. It is exceedingly easy to pass complements to deceased benefactors, because such praise costs nothing. Men have starved in garrets who have had statues erected to their memory. We hope the like will never occur again. In this age, with a free press to make hidden things public, we conceive it to be our duty to tell the community from time to time, of their duty, to be just and generous to those living benefactors of our race—discoverers and inventors.

The New York Crystal Palace.

This building is very far from being ready to receive goods for exhibition, although it is more than a month after the period when its managers solemnly promised to the world that it should be open for visitors. It is well known to our readers that we opposed the scheme of holding an Exhibition of Industry here so soon after the Worlds' Fair in London, and by a private company whose object was gain, not honor to our country. The reason we opposed it we have given before, namely, that after four, five, or six years, we might be able to have a grand national exhibition, not sectional nor for private gains, but eminently cosmopolite in its objects, yet national in its arrangement. Our sentiments were not dictated by any motive but the love and honor of our country, and the benefit of mankind. It has been said by some connected with the New York Crystal Palace, that we had other motives in view than those we

have expressed, but we had not; what personal objects could we have for uttering such sentiments? None. We also expressed our opinions respecting the manner in which the building was projected, and we predicted that it would cost more and give the managers greater trouble than they anticipated, also that we sincerely believed it would not be completed at the time promised. What we predicted has come to pass. The very papers in our city that kindly lent their influence to speak favorably of the Crystal Palace Company, have been obliged to speak in the severest terms respecting the want of good management among its conductors, and the violation of the promise made by them to the whole world to have it ready on the 2nd of last month. There are many people in this city now who came from distant parts of our own country, and from other countries, to witness the opening of the Exhibition, and the probability is, they will have to wait at least four weeks longer, for that eventful day. Two government vessels with Commissioners, we understand, left England two weeks ago, for the Crystal Palace, and vessels from other foreign countries, with goods for the Exhibition, have been lying at our port for more than two weeks. Is this not reflecting some disgrace upon our country through the managers of the Exhibition? It is; for these people have received the erroneous impression that this is a national not a private company's project. The London Palace covered 20 acres of ground; the New York Crystal Palace will occupy only about one-eighth of that space, and yet the former only took eight months in its erection, and was opened on the day promised, while the New York Crystal Palace will not be open for two months after the day it was promised to be ready. It is indeed humiliating to our go-aheaditiveness to think that neither the energy nor punctuality of the English, has been displayed in the erection of this comparatively little structure. The Association has been the means of drawing hundreds to this city at a too early period, thus involving them in great expense, and all because things have not been well managed. Under good and proper management, such a building could have been erected and ready for exhibition more than two months ago. The eminent engineers who were called in from various parts of our country to give the managers of the Association their advice respecting the different plans proposed, found that they were called upon to give merely a formal opinion; hence they at once resolved to have nothing to say in the matter. The Association took their own council, and have suffered for it in more ways than one. We have no doubt if the Exhibition had opened on the day promised, but the managers would have drawn in \$50,000 by this time, as no less than 100,000 strangers were in our city during the anniversary weeks.

We hope the New York Crystal Palace Managers will make amends for past ills, but to retrieve lost estimation, they have a Herculean task to perform. Whatsoever good they do, and whatsoever is honorable, happy will we be to give it circulation, for the honor of our country and the advancement of the arts; but hitherto we have not been able to say, in honesty anything favorable or of good report.

Leather and its Interests.

The leather business of the United States is very extensive: not less than a million and a half of hides are imported into our country every year, made into leather and used for different purposes. The capital invested in the tanning business has been represented in some statistical tables as amounting to \$19,000,000; there are about 6500 tanneries in the different States, in which no less than 12,000,000 sides of leather are tanned every year, the value of which amounts to \$33,000,000. Any business in which such an amount of money is invested, and in which so many persons are engaged as employers and employed, has strong claims upon our attention, in presenting information which may be useful, or even that which may be claimed as useful. The best articles ever published in any paper in our country, on tanning appeared in Vol. 5, Scientific American. They were written by one of the most experienced, and perhaps the

most learned tanner in our country. Since that time a very excellent work on the subject by Campbell Morfitt, has been published by H. C. Baird, Philadelphia, and respecting which our readers can become more fully acquainted by perusing the same. He describes no less than twenty-six different tanning processes, some of which are very curious, some ridiculous, some good, others bad. The work contains Hibbard's patent process, but not that of Eaton, which has been patented since, and by which very excellent leather has been made, we have been told, in ten days. The old methods of tanning were exceedingly tedious, and the grand object with tanners, has been to shorten the process and obtain as good leather as by the old plans.

We learn by the "London Mechanics' Magazine" that a new patent process, named "Prellers," has lately found much favor in London. After the hides or skins are unhaird in the usual manner, they undergo a partial drying, and receive a uniform coating of a peculiar paste composed of various vegetable and saline substances. The vegetable substances employed contain a large proportion of starch, such as barley, rice, or wheat flour, a little gluten, some butter, or oil and grease, some common salt, and some saltpetre. The hides are laid upon tables and smeared on the fleshy side, with the said paste, and in that state are put into the interior of large drums, which receive a rotary motion, and by which the hides are greatly agitated, and the paste (by pegs in the inside of the drums), is forced into the pores of the hides or skins, or rather they are kneaded along with the paste for two or three hours, after which they are drawn out. They are then found to be in a partial dry state, then hung up and aired for two hours, and again laid upon the table, where they receive another dose of the same paste, and are again returned to the drums a second time, when the same operation as that described is again performed. After this they receive a third smearing with the paste, and are kneaded in the drums, after which they are taken out and hung up to dry, and are then fit for the currying process. The leather thus produced is stated to be much lighter than that produced by oak or other tan barks, but is much stronger and will wear much better. It is asserted that for machinery bands it is twice as strong as oak-tanned leather, and that sheep and goat skins are rendered very tough and durable. It is said that calf skins are tanned by this process in about three hours, and the thickest ox-hide in three days.

We are not aware that any such process for tanning is described in any work on the subject, or has been practiced in our country. It is our opinion that it may make excellent uppers for boots and shoes, but not so good sole leather as oak bark. It is stated that the brains of animals is also used in the paste, and that the salt and nitre are only employed to preserve the animal and greasy matters from putriaction. The process has some resemblance to that employed by many tribes of our Indians for tanning their skins for moccasins and other purposes. They use the brains of animals, mixed with lye made of the wood ashes of their fires, and knead the skins and rub them with the pasty mass, upon the same principle as that employed in the "Peller process." When the tanning of the skins is completed according to their notions, they are finished by drying them, or rather smoking them, in a pit in the ground, which is covered with bark and some earth. We have seen very good brown leather made by this process. We are not able to give the exact proportions of the paste used by Preller, but this does not make much matter, for some of our tanners can surely make up a paste with flour, ox brains, and oil or grease, &c., and give it a fair trial, by kneading a skin or two in a tub, with a beetle, so as to test the principle of the process. There is nothing like giving every thing (unless it is manifestly absurd) which is set forth as an improvement, a fair trial, and this is the reason why we have presented the foregoing information, in order that it may be tested by some of our tanners to see whether it has any merit or not.

A company having a million of capital, is forming at Baltimore, to build a line of English steamers.

Events of the Week.

A BRONZE STATUE.—A very fine bronze statue of De Witt Clinton has been on exhibition at our City Hall during the past week. It was continually surrounded with a crowd of admirers from the moment it was erected on its pedestal. The statue is 10½ feet high and the pedestal 8½, making the altitude 19 feet. The artist is H. K. Brown, of Brooklyn, N. Y., who has done honor to himself and the art by this noble work. We do not like to see huge statues on low pedestals, but this work is so majestic, there is so much spirit in the whole, the face being truly fine: so much thought and genius sitting on the brow, fire in the eye, and bold determination in the firm compressed lips, that it at once commands and rivets admiration. The dress is the old-fashioned short clothes—knee-breeches, long stockings, and slippers, with the folds of a mantle gracefully swelling around it.

The casting was done at Ames' foundry at Chicopee, Mass., and does credit to those engaged in the minor manipulations. We wish that our citizens would erect such a statue to Robert Fulton; we like such testimonials to the memory of departed worthies far better than tall shafts or huge piles of masonry. This work to the memory of Clinton, we believe, is strictly private; this is no credit to the people of this State, nor this great city, which has been so greatly benefitted by that work of which he was the chief promoter—the Erie Canal—which united the Atlantic Ocean and Lake Erie together. It was hoped by many that the people of this State, or those of Albany city, would have at one time erected a public monument over his grave, but there did not appear to be enough of spirit or gratitude in the people to do this; hence his remains were removed by his relatives, a few years ago, and interred in Greenwood, in the family burial plot, where this noble work of H. K. Brown's genius is to be erected, and which will remain for centuries to let future generations know where De Witt Clinton sleeps.

CURING SMALL POX.—Dr. A. Kendall, of this city, has advertised in the "Times," that he can cure small pox in two or three days, and that he is willing to go into any Hospital along with Commissioners appointed for that purpose, and prove what he asserts he can do to their satisfaction. He also says that he can learn any person to do what he does, in the course of a few hours. Let the skill of Dr. Kendall be tested in some one of our Hospitals, under Commissioners appointed by the City Fathers.

HATS AND TABLES MOVING.—By the late news from Europe, it seems that the table moving is exciting a most extraordinary amount of attention both in Germany and France. Jules Jannin has written a wonderful article on the subject, and three members of the Academy of Sciences have published an account of several successful experiments of table moving made by them. It is stated that a circle was formed on a hat, and it soon began to spin round like a top. It is also asserted that some students in a medical college in Germany, formed the circle with a *maniken*, and it soon began to move and spin round, and at last made the experimenters take leg bail for their impertinence. This latter story, and that about the hat, however, need confirmation, but there can be no doubt but that many people in Paris are now convinced from the table movings, that perpetual motion has at last been discovered.

CHURCH STRUCK WITH LIGHTNING.—On Sunday, the 22nd inst., the Congregational Church at Lockport, N. Y., was struck by lightning during divine service, and sad to relate, one member of the church—Mr. Croker—was killed, and a number severely wounded. The electric fluid passed down the steeple, and entered the gallery by two lamp wires, where it struck and paralyzed those who were in the choir. It is stated that there was no lightning conductor on the spire, and there can be no doubt but if there had been a properly constructed one, this accident would not have taken place. The lightning was seen like a ball of fire, and the shock was terrific. The building was but very little damaged, and it is supposed that all those who have been injured will recover.