



The Scientific American.—Subscribe for a Good Work.

We return our thanks to our numerous subscribers for their favors during the past year. We have received a great accession to our subscription list during "the year just ended." The fame of the Scientific American, is now co-extensive with that of our country. No other work of the same nature has met with the same success—none has been received with more favor by our people. This may be owing to the energy displayed to render it both attractive and useful—to make it (as it is) the mirror of scientific knowledge and the advocate of genius and industry. The age of humbug in these things is past—the people cannot be duped any more with mere "sounding brass and tinkling cimbals." Every thing must now be estimated at its real worth and this is the right way to judge of it. We flatter ourselves that we do much to disseminate real practical knowledge and we have received many tokens acknowledging the benefits received by the information propagated by us. Our brethren of the press have been very kind in giving us favorable notices—we are not ungrateful. It shows that the American Press is always ready to assist in the diffusion of useful knowledge. As this is a good time to commence life anew in the pursuit of knowledge, no investment of capital for 1849 could be more profitably laid out by any person, than by subscribing for the Scientific American.—No man who desires to be acquainted with the progress of science, discoveries in the arts, improvements in machinery and with patent laws and patent business, should be without it, and no man who would have the esteem of being intelligent in these matters can be without it.

Ruins and Treasure in Texas.

About one hundred miles southeast of Santa Fe are some extensive salt lakes or salinas, from which all the salt used in Mexico is procured. Not far from these salinas are the ruins of an old city, which, as is reported, was once large and wealthy, with rich mines, the produce of which was sent annually to Spain. Dr. Wislizenus, in his memoir of a tour through northern Mexico, which was published in the beginning of last year by order of Congress, has the following concerning these ruins:

"At one season when they were making extraordinary preparations for transporting the precious metals, the Indians attacked them; whereupon the miners buried their treasure worth 50 millions, and left the city together; but were all killed except two, who went to Mexico, giving the particulars of the affair and soliciting aid to return. But the distance being so great and the Indians so numerous, nobody would advance, and the thing was dropped. One of the two went to New Orleans, then under the dominion of Spain, raised 500 men, and started by way of the Sabine, but was never heard of afterwards. So far the report. Within the last few years, several Americans and Frenchmen have visited the place and although they have not found the treasure, certify at least to the existence of an aqueduct about ten miles in length, to the walls still standing of several churches, the sculptures of the Spanish coat of arms, and to many spacious pits supposed to be silver mines. It was no doubt, a Spanish mining town, and it is not unlikely that it was destroyed in a successful insurrection of the natives in 1650."

Yankees Locating in Mexico.

Before the war with Mexico, there were seven cotton factories in operation there. Since peace, several machinists from New England have departed for Vera Cruz, with a view of erecting a large establishment. One gentleman has started as the agent for some Boston capitalists, to look up a good location of water privileges for manufacturing purposes.

LITERARY NOTICES.

The American Metropolitan Magazine.

We have received the first number of Mr. Post's new magazine, published at 259 Broadway, and very freely award it the praise of being one of the choicest and most beautiful of its class. The typography and embellishment are tasteful and striking, and the literary matter is exclusively from popular and well known pens. There are nine engravings in the number, and several original articles in prose and verse, from Mrs. Child, Mrs. Embury, Mrs. Stephens, Mrs. Osgood, Mrs. Ellet, Mrs. Campbell, Miss Sedgwick, Miss Gould, Miss Browne, J. T. Headley, C. Edwards Lester, John Brougham, Ralph Hoyt, R. H. Stoddard, G. G. Foster, Nelson Cook and William Landon. The illustrations are by T. H. Matteson. We do not see any thing that ought to interfere with the success of this undertaking, so long as our light periodical literature retains its popularity.

The above notice we copy from the Tribune and are inclined to indorse every word of it.

To those Embarking for the Gold Mines.

We have been favored with the perusal of a little work published by E. N. Kent, practical chemist of this city, giving instruction for collecting, testing, melting and assaying Gold. The instructions which are contained in this work are purely practical and we would recommend every person to purchase one who is bound for the California Mines. See advertisement on another page.

Messrs. Fowlers and Wells, No. 131 Nassau st. have commenced the monthly publication of the "Water Cure Journal and Herald of Reforms." It will be devoted to the Philosophy and Practice of the Hydropathic System of curing and preventing diseases. Including a correct system of Dietetics, Bathing and the general modes of life. Adapted to the use of families. Terms \$1 per year.

We have received a very instructive work, entitled the "Outlines of a New System of Physiognomy." Illustrated by numerous engravings, indicating the signs of the different mental faculties. By Dr. Redfield. The work is well got up and worthy of an extensive sale. Price 25 cents. Published by J. S. Redfield, Clinton Hall, this city.

Russian Minerals.

Professor W. R. Johnson has recently received by order of the Russian government, a splendid and valuable series of the minerals of that country, embracing some rarer varieties of mineral forms, as well as of the rich and valuable metallic ores, from widely distant parts of the empire. The donation is understood to be an acknowledgement of important assistance rendered to certain officers of the Russian Mining Corps sent to this country in 1846, to investigate the subject of the mining and use of anthracite and other coals. It is an appropriate compliment, and was accompanied by letters which speak in the most unequivocal terms of the high estimation of the scientific aid and co-operation of Professor Johnson.

Cost of Mail Service.

The average cost of transporting all the United States mails, taking all the modes together, is not quite six cents per mile. The average cost of transportation in all modes, exclusive of steamboats and railroads, is thirteen and a half cents per mile. The average cost of transportation in steamboats is 6 cents per mile. The average cost of transportation by Railroad is seven and a half cents per mile. The entire length of post routes in operation during the year ending on the 30th June 1848, was 163,208 miles. The aggregate transportation of the mails over these routes during the year was 41,012,579 miles; and the cost for the year was \$2,394,503.

Important Discovery to Ireland.

The English papers inform us that by recent investigations which have been carried on by the Royal Irish Fisheries Company, it has been ascertained that the Newfoundland fishing banks extend eastward across the Atlantic to within 100 miles of the coast of Ireland, and that fish enough can be procured on that coast to supply all the markets in the world.

Oil of Birch Bark.

The Russians obtain this oil by filling a large earthen pot, with the thin whitish paper-like external bark of the birch tree, carefully separated from the coarse bark, closing the mouth of this pot with a wooden bung, pierced with several holes; and then turning it over and luting it with clay to the mouth of another of the same size. A hole being dug in the ground, the empty pot is buried in it, and a fire is lighted round and over the pot containing the bark, which is continued for some hours, according to the size of the pot.—When the apparatus is cooled and unluted, the lower pot contains the brown oil, mixed with pyroigneous tar, and swimming on an acid liquid.

In some places iron pots are used for this purpose, and the bark is hindered from falling to the lower pot by a plate of iron, pierced with holes; 1000 pounds of bark yield about 60 of oil.

The waste of fuel in this process may be avoided by placing the pots in the side chamber of a reverberatory furnace filling the chamber a little above the joining of the pots with sand, and then proceeding to distillation.

The oil is used in Russia for currying leather, to which it gives a peculiar odor, and a power of resisting moisture, far beyond any other dressing. Its use seems to have arisen from observing that the thin paper-like leaves of birch bark, remained after the coarser of the bark, and the timber of fallen trees had rotted. The oil appears to owe this quality to a resin which by this mode of distilling is allowed to escape in a great measure from the action of the fire, and drop into the lower pot.

Other barks, as those of the oak, willow, poplar, alder, as also poplar buds, rue and savine, have been tried, but the produce from them was only a stinking oil. Birch wood yields only a stinking oil totally unlike the oil of the external bark. Cork yields an oil in some degree approaching that of birch bark.

To Make Lasts the Shape of the Foot.

First, take a couple of pairs of stockings that will fit the feet rather snugly. Put one pair of them on. Then moisten the other pair with oil, and put them on over the first. Then prepare a mixture of calcined plaster of Paris and water in the manner that is done for taking plaster casts. Having coated over a board with a layer of this of suitable thickness, stand upon it with the foot, and let some one apply successive layers of the plaster over your whole foot, say a quarter of an inch thick. When this has hardened, carefully cleave it off, and then by cementing the pieces together again by the glue or the same preparation of plaster that you have used, you will obtain a mould of your foot. Oil the inside of this, and pour in a sufficient quantity of prepared plaster to fill it. After this has hardened it may be taken out, and you have a casting of your foot, a perfect *fac simile*, only as much larger as the thickness of the outer pair of stockings that you had on. By putting this into a last turning machine you may have a wooden last turned exactly like it, and a boot made upon it will fit the foot perfectly.

Vegetarian Society.

There is a society in existence in England under this title, the members of which abstain from eating meat and drinking intoxicating beverages. The annual meeting was celebrated a short time since by a public dinner at Manchester, to which 232 persons sat down many of whom had abstained from animal food for periods varying from 20 to 40 years. The following is a list of courses served up: First course—Large savory omelet, rice fritters, beet root, onion and sage fritters, savory pie, mushroom pie, bread and parsley fritters, force-meat fritters, large macaroni omelet—water the only beverage. Second course—Plum pudding, moulded rice, almonds and raisins, cheese cakes, figs, custards, grapes, flummery, sponge cakes' goose-berries, nuts, red and white currants, moulded sage, fruit tarts—water the sole beverage.

Give a man the secure possession of a bleak rock, says a forcible English writer, and he will turn it into a garden; give him a nine years lease of a garden, and he will convert it into a desert.

A Nubian Loom.

Miss Martineau, in her "Eastern Life," says:—Early one morning, when walking ashore, I came upon a loom which would excite the astonishment of my former fellow-townsmen, the Norwich weavers. A little pit was dug in the earth, under a palm,—a pit just big enough to hold the treddles and the feet of the weaver, who sits on the end of the pit. The beam was made of a slender palm stem fixed into two blocks. The shuttle was, I think, a forked twig. The cotton yarn was even, and the fabric good,—that is, evenly woven. It was, though coarse, so thin, that one might see the light through it; but that was intended and only appropriate to the climate. I might have wondered at such a fabric proceeding from such an apparatus, if I had not remembered the muslins in India, produced in looms as rude as it. It appears, too, from the paintings in the tombs, that the old Egyptian looms were of nearly as simple a construction, though the people were celebrated for their exports of fine linen and woolen stuffs. The stout-looking, gaily checkered sails of the boats, and the diversified dresses of the people, represented in the tombs, were, no doubt, the produce of the rude looms painted up beside them. The baskets made by the Nubians are strong and good. Their mats are neat, but neither so serviceable nor so pretty as those of India; but then this people have not so much material as the Hindoos. The rope-making is a pretty sight, prettier even than an English rope-walk though that is a treat to the eye. We often saw men thus employed, one end of their strands being tied to the top of a tall palm, while they stood at the other, throwing the strands around till they would twist no more.

Awful Death.

We learn from the Lowell Courier that on Saturday last, at the machine shop of Messrs. Aldrich, Tyng & Co. Mr. Joseph White, who was employed by them as an engineer, came to his death in the following manner:—At the close of work he went to blow off the boiler, in doing which he stood in such a position by the boiler that when he let off steam it struck him directly in the breast, by which he was knocked down, and instantly enveloped in steam and boiling water. He arose and walked a few steps, then fell upon the floor, and exclaimed, "I am scalded to death." He survived but a few hours.

A person should be very careful how he turns a steam cock. He should on no account stand before it. We had a lesson of a severe scald by a careless act of this kind, which will not soon be forgotten.

Silver Mine in Norway.

In the Swedish official paper, of October 27, it is stated that, on the 14th of September, the workmen employed in the King's mine, which is one of the Königsberg silver mines, in Norway, found a lump of pure native silver weighing 208 pounds, and that, on the 6th of October, another lump of native silver, equally pure in quality, of no less weight than 436 pounds, was dug out of the same mine. It is a fact worthy of being recorded, that about twenty years ago this mine was offered for sale, in London, for the sum of \$10,000; but the capitalists of that day had not sufficient confidence in the treasures it was presented to possess to give this comparatively small price.

Wool in Canada.

The farmers of Upper Canada grow a large quantity of wool. Under the present law, the wool can come into this country to be manufactured, and be returned in cloth without duty. A woolen factory has been built at Oswego for the Canadian business. The Yankees are now traversing Canada, soliciting the business. The wool is bagged, shipped to Oswego, and in a few days the cloth returned.

Aerial Voyage to the Gold Regions.

Professor Syntax Profound is organizing a company to go to the gold regions by an air line from this city to the Gap of Gorten in the Rocky mountains. The books for passengers in the balloon will be opened in a few days. The gas is already generated, and all that is wanting is simply a few of the rocks as ballast, as the gas is exceedingly buoyant.