The Dead Sea Expedition.

Lieut. Maury has given a brief description of the expedition to the Lake of Asphaltus from which we select the following deeply interesting extracts. Lieut. Lynch was the person who planned and proposed the expediton and the Secretary of the Navy received favourably the proposition. Having to send a store ship to the Mediterranean squadron, and as, after her arrival, she would have no employment for months, the Secretary determined to send Lieut. Lynch and his party in her; so that, after meeting the wants of the squadron, she could proceed up the Levant, and land Lieutenant Lynch and his companions. This was done. The storeship "Supply" was provided with two metallic boats, one of copper, the other of iron; the former named "Fanny Mason," and the latter "Fanny Skinner." On their arrival at their destination their troubles began, and in their march to Lake Tiberius their boats had to be transported over the most formidable mountain gorges and heights, and to be lowered down precipices with ropes. But these difficulties were surmounted with true sailor's skill and perseverance, and on the 8th of April the two Fannies, each with an American ensign flying, were afloat upon the beautiful blue waters of the sea of Galilee. "Emblematic of its Master, it alone of all things around them remained the same. Just as the Apostles saw it when our Saviour said to it, 'Peace, be still,' this little band of rovers now beheld it.

The navigation of the Jordan was found to be most difficult and dangerous, from its frequent and fearful rapids. Lieut. Lynch solves the secret of the depression between Lake Tiberius and the Dead Sea by the tortuous course of the Jordan, which, in a distance of sixty miles winds through a course of two hundred miles. Within this distance Lieut. Lynch and his party plunged down no less than twenty-seven threatening rapids, besides many others of less descent. The difference of level between the two seas is over a thousand feet.

The water of the Jordan was sweet to within a few hundred yards of its mouth. The waters of the sea were devoid of smell, but bitter salt, and nauseous. Upon entering it, the boats were encountered by a gale, and "it seemed as if the bows, so dense was the water, were encountering the sledge hammers of the Titans instead of opposing waves of an angry sea. The party proceeded daily with their explorations making topographical sketches as they went, until they reached the southern extremities of the sea where the most wonderful sight that they had yet seen waited them.

In passing the mountain of Uzbom (Sodom) unexpectedly, and much to our astonishment. says Lieut. Lynch, "we saw a large, rounded turret-shaped column, facing towards south-east, which proved to be of solid rock salt, capped with carbonate of lime, one mass of crystallization. Mr. Dale took a sketch of it, and Dr. Anderson and I landed with much difficulty and procured specimens from it." The party circumnavigated the lake, returned to their place of departure, and brought back their boats in as complete order as they received them at New York. They were all in fine health. This is a specimen of the skill, system, discipline of the American navy. No nation in the world has such a service. The time is coming when it will give proofs of that fact palpable to the most dull understanding. Thanks to the good management of Lieut. Lynch, the whole cost of this scientific exploration of the Dead Sea, [except, of course, the cost of the equipage and maintenance of the crew of the ship,] was but seven hundred dollars.

From the letters of Lieut. Lynch, quoted by Lieut. Maury, we transcribe the following facts elicited by the exploration:

"The bottom of the northern half of this sea is almost *an entire plain.* Its meridianal lines at a short distance from the shore scarce vary in depth. The deepest soundings thus far, 188 fathoms, (1128 feet.) Near the shore the bottom is generally an incrustation of salt, but the intermediate one is soft mud with many rectangular crystals—mostly cubes—of pure salt. At one time Stellwager's lead brought up nothing but crystals. The southern half of the sea is as shallow as the northern is deep and for about one-fourth of its entire length and depth does not exceed three fathoms (18 feet.) Its southern bed has presented no crystals, but the shores are lined with incrustations of salt, and when we landed at Uzbom in the space of an hour, our footprints were coated with crystalization. The opposite shores of the peninsula and the west coast present evident marks of disruption. There are unquestionably birds and insects upon the shores, and ducks are sometimes upon the sea, for we have seen them—but cannot detect any living thing within it; although salt streams flowing into it contain salt fish. I feel sure that the results of this survey will fully sustain the scriptural account of the cities of the plain."

He thus speaks of Jordan: "The Jordan, although rapid and impetuous, is graceful in its windings and fringed with luxuriance while its waters are sweet, clear, cool, and refreshing."

After the survey of the sea, the party proceeded to determine the height of mountains on its shores, and to run a level thence via Jerusalem to the Mediterranean. They found the summit of the west bank of the Dead Sea more than 1000 feet above its surface, and very nearly on a level with the Mediterranean.

"It is a curious fact," says Lieut. M." that the distance from the top to the bottom of the Dead Sea should measure the height of its banks, the elevation of the Mediteranean, and the difference of level between the bottom of the two seas, and that the depth of the Dead Sea should be also an exact multiple of the height of Jerusalem above it."

Another not less singular fact, in the opinion of Lieut. Lynch, is, "the bottom of the Dead Sea forms two submerged plains, an elevated and a depressed one. The first, its southern part of slimy mud covered by a shallow bay; the last, its northern and largest portion of mud and incrustations and rectangular crystals of salt—at a great depth with a narrow ravine running through it, corresponding with the bed of the river Jordan at one extremity and the Wady, 'el Jeib,' or wady within a wady at the other."

"The slimy ooze," says Lieut. Maury, upon that plan at the bottom of the Dead Sea will not fail to remind the sacred historian of the 'slime pits' in the vale, where were joined in battle "the four kings with five."

Wire Fence.

Chesnut posts are first planted in the ground about eight feet apart and of such height as may be desired; the first one being much larger and set deeper in the ground than the succeeding ones, because of the great resistance it has to make in stretching the wire. After the posts are properly arranged grooves are sawed into the side of each post for the wire to lay in. The wires are placed one above the other from six to seven inches apart. The fulcrum and lever is then placed at the extremity of the extremity of the wires to draw and tighten them. When they are sufficiently tight, they are secured firmly into the post by small staples made of wire. This fence sufficiently resists the encroachments of all kinds of stock but hogs, and they never should be allowed to run loose.

This fence may be capped with board, which would make it more solid. The wire should be No. 10, boiled in linseed oil and then dried. Or the fence may be put up and the wire coated with varnish afterwards at but little expense. Coarse varnish will do and then there would be no fear of rusting. The ends of the posts should be dipped into a hot liquid of the sulphate of copper and then into boiling pitch. This might be a little troublesome, but the post prepared thus, although of poor timber, will endure for an almost incredible space of time. Wire fence must yet supersede all other kinds owing to its cheapness and portability.

The power and weight on an inclined plane balance each other, when the former is to the latter, as the height of the plane to its length. In estimating draught up a hill, if the hill rises one foot in four, one fourth part of the weight must be added to the draught on level ground.

For the Scientific American.

Sympathetic Inks.

Sympathetic, or secret Inks, are those fluids, which when written with on paper, are invisible when dry, but become visible, and acquire color, by simply heating the paper, or by applying to the invisible writing another chemical agent. The writing with these inks may be made to become visible or invsible successively, by treating as directed.

GREEN INK.

If letters be traced on paper with muriate of cobalt, the writing is invisible; but by holding it before the fire the characters speedily assume a beautiful green color, which again disappears as the paper cools. A very pretty effect is produced by drawing the trunk and branches of a tree with a fast ink in the ordinary manner and tracing the leaves with the sympathetic ink as above. The tree appears leafless till the paper is heated, when it suddenly becomes covered with a foliage.

BLUE INK.

This ink which may be used like the preceeding, may be prepared in the following manner:—

Take one ounce of cobalt reduced to powder, put it into a Florence flask and pour over it two ounces of pure nitric acid. Expose the mixture to a gentle heat; and when the cobalt is dissolved, add, by small quantities, a solution of potash, until no more precipitate ensues. Let this precipitate subside; decant the supernatant fluid, and wash the residuum repeatedly in distilled water, until it passes tasteless; then dissolve it in a sufficient quantity of distilled vinegar, by the assistance of a gentle heat, taking care to have a saturated solution, which will be known by part of the recipitate remaining undissolved after the vinegar has been on it for some time.

SILVER INK.

Write on paper with a dilute solution of sulphur acetate of lead of commerce; the writing will be invisible. To make the characters legible, hold the paper whilst the letters are still wet, over a saucer, containing water impregnated with sulphuretted hydrogen gas; the characters then assume a brilliant metalic and iridescent color.

YELLOW INK.

Write on paper with a dilute solution of muriate of copper; the letters when dry will be invisible; but if the paper be warmed before the fire, the writing will assume a yellow color, and disappear again when the paper is cold.

BROWN INK.

Write on paper with a solution of nitrate of silver, sufficiently diluted, so as not to injure the paper; the characters, when dry, will be invisible, and remain so, if the paper be closely folded up, or it the writing is, in any other way, defended from the light; but it the paper be exposed to the rays of the sun, or merely to the common light of day, the characters speedily assume a brown color, and lastly turn black.

Animal-shaped Mounds of Wisconsin.

They consist of elevations of earth, of diversified outline and various size; for the most part constituting effigies of beasts, birds, reptiles, and of the human form; but often circular, quadrangular and of oblong shape. The circular or conical tumuli differ from those scattered over the whole country in no outward respect excepting that they are much smaller in their average dimensions; the lagest seldom exceeding fifteen feet in height. Those in the form of parallelograms are sometimes upward of 500 feet in length, seldom less than 100; but in height they bear no proportion to their otherwise great dimensions, and may probably be better designated as walls, embankments, or terraces, than mounds. These works are seldom insolated, but generally occur in groups or ranges, sometimes, though not always, placed with apparent design in respect to each other. In these groups may be observed every variety of form—the circular, quadrangular and animal shaped structures occurring in such connection with each other as to fully justify the belief that they are of contemporaneous origin. At first glance, these remains are said to resemble the sites or ground-plans and foundation-lines of buildings; and it is not until their entire outline is taken into view, that the impression of an effigy becomes decided. This is not surprising, in view of the fact that they are usually of inconsiderable height varying from one to four feet; in a few cases, however, rising as high as six feet. Their outlines are, nevertheless, represented to be distinctly defined in all cases where they occupy favourable positions. Their small altitude should cause no doubt of the fidelity of representations which have been made of these figures; since a regular elevation of six inches can be readily traced upon the level prairies and "bottom-lands" of the West, especially when covered with turf.

Preserving Fruit.

In the first number of the Transactions of the Massachusetts Horticultural Society, there is an accouut of the new mode of preserving apples and pears. The inventor of the mode, M. Paquet, of Paris, has received from the Royal Society of Horticulture, a medal. He presented on the 12th of June, one hundred pears and apples, which it is stated not only preserved their beauty, freshness and flavour, but even their perfume. His fruit-house is described as a circular building, with an outer and an inner wall—the size of the building being whatever is convenient. The distance between the outer and inner wall is about three feet six inches. There are windows in both walls, a diffused light being preferred to darkness. The inner room, which is the depository of the fruit, is kept at a constant temperature of 50 degrees; (fahr) as low as 39 would not be injurious, but 66 to 73 destructive. Boxes are made with drawers of oak; that wood being easier to be cleaned from the remains of fruit which might decay. "In these drawers," says the account, "the fruits are placed with small intervals between each, on a slight bed, one-sixth of an inch thick, of saw dust, (not pine, which would communicate an unpleasant flavour,) highly dried in an oven, eight parts, and one part of very dry pulverised charcoal; and with this mixture the interstices between the fruits are filled to about two-thirds of their height, leaving one third exposed." This mode is deemed greatly preferable to keeping fruits in moss, cotton, paper or other substances.

The fruit should be gathered with the greatest care, and not in the least bruised; the fairest and finest specimens selected. It should be gathered ten days before it is ripe. After it is gathered, it is directed to leave it in an open airy situation for about fifteen days, to sweet, and on no account be wiped previous to being disposed in the fruit-house.

On the proportion of Nutriment to the Means of Living.

According to a memorial presented to the French minister, 100 pounds of wheat bread on an average contains 30 pounds of nutritive elements—gluten and starch. Black bread much less.

100 pounds of flesh on the average 31 pounds of nutritive matter, (according to Wohler) fresh flesh seventy per cent water, the remainder solid substance—fibrine.

100 pounds of French beans, on an average, contain eighty per cent nutrition.

100 pounds of peas twenty three per cent.
100 pounds of lentils ninety four per cent.
100 pounds of beets pulse eight per cent.
100 pounds of carrots fourteen per cent.
100 pounds of potatoes twenty five per cent.

Small Critics.

This class of men are as profoundly impudent as they are ignorant. Their chief glory lies in the practice of assailing men who are infinitely their superiors in every respect—men who deem it beneath them to treat such individuals in any other manner than with silent contempt. Such creatures are so vain (for egotism and ignorance go hand in hand,) that they deem the silence of superiority always as an effectual triumph. These *small critics* are the turkey buzzards—the vermin—*the Mexican rancheros* of literature—they not only torment but live on the life blood of genius and worth. As Burns has it, they are "horse leeches in the path of fame."

Beautiful iron bedsteads are now made in this city.