Scientific Memoranda.

VEGETABLE FLESH.

A writer in the Westminster Review on human progress gives utterance to the following curious speculations,

" The practice of feeding on the flesh of animals, entombing their bodies within our own, has something in it repugnant to refinement. Many individuals there are who wholly abstain from this food, and confine themselves to vegetables. Some there are who abstain even to the injury of their own health. We are not counsellors of this species of martyrdom but nevertheless think it desirable that the practice of eating animals should disappear from civilized communities so soon as other means of maintaining their physicial energies can be obtained. We think that nature has provided for this also, as another phase of man's existence, when his brain shall be set to work upon it. We will endeavor to analyze the subject.

Grass and plants are organized bodies, endowed with life and feeding on earths and minerals ; in short, aggregating together various chemical ingredients. Some of these plants we eat directly, others we eat indirectly, by feeding animals on them, and then feeding on the animals. All this is simply an indirect course of gathering together chemical ingredients in our own bodies. The problem, then, to solve is, how shall we accomplish the task of gathering the chemical ingredients together, and applying them to our bodies—from inorganic, and not organic matter ?

In examining the qualities of vegetables, we find that some are oily, some sugary, some glutinous—as the olive, the sugar-cane, and many plants and trees yielding gum. There is yet another variety, seeming to constitute the midway mixture of the animal and vegetable—the mushroom. These vegetables seem to point out to us our course. Could we produce a new vegetable, or cross some old vegetable so as to unite the three qualities of wheat, olives, and sugar-cane, we should have attained a species of vegetable flesh, no doubt of highly nutritious quality."

There is an anecdote of a certain Methodist Missionary, who destroyed the whole ancient religion of a celebrated Brahmin, by making him look through a microscope on a cut pomgranate. Man in every age and in every country has been and ever will be a feeder on animal and vegetable food.

CALIFORNIA GOLD REGION.

This region extends from the western base to the summit of the range of the Sierra Nevada, a distance generally of a hundred miles, or more. The western slope is broken and through the deep ravines that abound, flow the numerous mountain streams that form the tributaries of the Sacremento and San Joaquin rivers. The gold region is a longitudinal strip or tract from ten to forty miles in width lying about midway, or a little lower, between the base and summit of the range, and extending in length a distance of many hundred miles—active operations being already carried through an extent of four or five miles at least.

The gold region is always associated with quartz, and is not found in the slate as is generally supposed, except as covered and imbedded in some convulsion. By the latest news companies are forming to pulverize and extract the gold from the quartz, one dollars worth of gold, it is said, can be extracted from one pound of gold quartz.

JAPAN.

The Japanese are said to have acquired the art of smelting copper to extract the silver from some Hindoos, in the year 1591. There is more evidence to prove that the East Indies was the cradle of the Arts than that Egypt was.

Water for Albany.

Mr. R. Pruyn has presented a petition from the Corporation of Albany, to supply that city with pure and wholesome water. We hope that the citizens of Albany will act as if they were in earnest about this most important matter. It is a city whose inhabitants are often panting for water, with one of the most splendid rivers in the world laving its base—"there must be something wrong."

Short Biography of Sir M. J. Brunel.

This great inventor, whose death we recently announced deserves more than a mere passing notice. In the London Times of the 13th Dec. 1849, we find a short skectch of his life and from a few other extracts previously col-' lected we here present a brief but not a less interesting Memoir. He was born in Hacqueville, Normandy, in 1769 and was therefore a Frenchman. He was educated for the church, with the prospect of succeeding to a living, and was accordingly sent at an early age to the seminary of St. Nicain, at Rouen. But he soon evinced so strong a predilection for the physicial sciences, and so great a genius, for mathematics, that the superiors of the establishment recommended he should be educated for some other profession than that of the church. His farther strongly objected to his adopting the profession of an engineer, and he therefore determined that he should be educated for the naval service, in which he thought his son's proficiency in mathematics might lay the foundation of his advancement in that profession. At the proper age he entered the Royal Navy. On one occasion he surprised his captain by producing a sextant and quadrant of his own construction, and which he used for making observations. He made several voyages to the West Indies, and returned home in 1792. At this time the French revolution was at his height. As Mr. Brunel entertained royalist opinions, which he was not very careful to suppress, he was forced to seek safety in flight. He emigrated to the United States, where necessity, fortunately, compelled him to follow the natural bent of his mind and to adopt the profession of a civil engineer He was first engaged to survey a large tract of land near Lake Erie. He was employed in building the Bowery Theatre, in New York, which not many years ago, was burnt down, he furnished plans for canals, aud for various machines connected with a cannon foundry then being established in the State of New York.

In 1799 he went to England and offered his services and plans for ship blocks to the British government. Lord Spencer, then we believe first lord of the Admirality, became his friend and patron. He became a frequent guest at Spencer House, and never failed to speak warmly of the assistance and encouragement he derived from the friendship of Lord and Lady Spencer. From this time he continued to riside in England, and refused to entertain many propositions made to him to leave England and settle abroad under the auspices of other governments. After much opposition to his plans—for every powerful interest was arrayed against him, not lessened in that day by his being a Frenchman—he was employed to execute them in Portsmouth dock-yard. To perfect his designs and to erect the machinery was the arduous labor of many years.

He selected Mr. H. Mandsley to be his assistant, who was then a poor man, and brought him into deserved notice, and laid the foundation of his wealth and great engineering establishment in the city of London.

The block machinery was finished in 1806, and has continued ever since in full operation supplying the fleet with blocks of a very superior description to those previously in use, and at a large annual saving to the public. It was estimated at the time that the saving, in the first year, amounted to $120,000 per annum : and about two thirds of that sum were awarded to Mr. Brunel. Even after the elapse of forty years, notwithstanding the marvellously rapid strides made in the improvement and construction of machines of all kinds, it remains as effective as it was when first erected, and unaltered.

A few years afterwards he was employed by government to erect saw-mills, upon a new principle, in the dock-yards of Chatham and Woolwich. Several other inventions were the offspring of his singularly fertile mind about this time,—the circular saw for cutting veneers of valuable woods ; and the beautiful little machine for winding cotton thread into balls, which greatly extended its consumption. About two years before the determination of the war, Mr. Brunel, under the countenance of the Duke of York, invented a machine for making shoes for the army by machinery, the value and cheapness of which were fully appreciated, and they were extensively used ; but, the peace of 1815 lessening the demand, the machinery was ultimately laid aside. Steam navigation also at that time attracted his attention. He was engaged in the building of one of he first Ramsgate steamboats, and, we believe, introduced the principle of the double engine for the purpose. He also induced the Admiralty to allow him to build a vessel to try the experiment of towing ships out to sea, the possibility of which was then denied.—Many other objects of great public utility occupied his mind, which in this mere outline of a long and active life must be excluded, some of which were failures such as propelling boats by carbonic gas, but this has been the case with every inventor.

He proposed to the Emperor Alexander of Russia a plan for making a tunnel under the Neva, where the accumulation of ice, and the suddenness with which it breaks up on the termination of winter, rendered the erection of a bridge a work of great difficulty. This was the origin of his plan for a tunnel under the Thames, which had been twice before attempted without success. In 1824, however a company was formed, and supported by the Duke of Wellington, who took, from first to last, a deep interest in the work. Many men of science also joined it, amongst whom Dr. Wollaston was the most prominent, and whose brother long continued one of the most active and able promoters of the scheme. The work was commenced in 1824. It was stopped more than once during its progress by the breaking in of the river, and more effectually at last by the exhausted finances of the company, which never extended beyond the command of £180,000. At length, after the suspension of the work for many years, by a special act of parliament, a loan was sanctioned, the Exchequer Loan Commissioners advanced the funds necessary for the completion of the work under the river, and, notwithstanding many weighty professional opinions were advanced against the practicability of the work, from both the loose alluvial nature of the soil through which it had to be constructed, and the superincumbent flood of water, it was finished and opened to the public in 1843. In a scientific point of view, this work will always be regarded as displaying the highest professional ability, an amount of energy and perseverence rarely exceeded and a fertility of invention and resources under what were deemed insurmountable difficulties, which will always secure to Sir I. Brunel a high place amongst the engineers of every country. During Lord Melbourne's administration, Mr. Brunel received the honor of knighthood, on the recommendation of the late Lord Spencer, then Lord Althrop. Sir I. Brunel was a vice president of the Royal Society, a corresponding member of the Institute of France, and a vice president of the Institution of Civil Engineers. He was also a chevalier of the Legion of Honor. He was unaffected, simple in his habits, and benevolent and as ready to a kind act as he was to forget an injury. He died in his 81st year after a long illness, which first visited him soon after the completion of the Tunnel, a brief sketch of which we will present next week.

Spain and its Resources.

The more I have contemplated this magnificent country, this extraordinary climate, superabundant soil, and bold and sturdy peasantry, the more I am at a loss to understand the causes that make all these gifts of Providence of no avail, and why such a nation should be plunged in a seemingly interminable civil war, devastating the cities, the fields and the provinces. An acute Spaniard observed to me, "If we had but six honest men, and they the ministers, we should have peace, order and tranquility ; but there are no such persons to be found." Again he remarked—"The climate which you so much eulogise is one cause of our wretchedness ; every article of life is so cheap that a Spaniard can live on three half-pence a day, and would rather idle all his time away than undertake any labor," and this is probably much of the cause of Spanish deterioration ; where the earth produces easily as in warm climates, the people are unaccustomed to work and activity, and to the valuable habits resulting from steady exertion ; so they sink satisfied under a despotic government, because it saves them the trouble of thinking and acting for themselves, having no institutions to cherish a different spirit among them. The old system, too, of Spain, when each province had its own peculiar laws, customs and privileges, was a bar to free internal communication throughout the country, and roads, and bridges, and public works and enterprise were, and are almost entirely wanting.

There was no national opinion for education was at a low ebb ; corruption existed ted in and tainted every thing from the highest minister to the humblest of his officials ; the public departments and the law courts were filled with favoritism, servility, and venality ; services and the rights were disregarded in favor of the highest bidder. This was the complaint of the Spanish themselves. The mines of Spain have been no less neglected than the above ground produce. There are said to be coal-mines of a good quality in Asturias, but no one cares to lay out capital in working them. The quick-silver mines of Armaden, &c., are the property of the government ; they pay no taxes, and produce about one quarter of a million sterling ; these constitute one-sixth of the whole, and the revenue from the remainder does not exceed £50,000 annually. The same number of beasts of draught and burden are said to be employed in these mines, and half a million of men.—Were they properly looked after which becomes the more important since the loss of America to Spain—the increase, it is generally considered, would be enormous, and the results highly beneficial to the government and country at large, in the vast impulse thus given to national activity. As it is, the south of Spain is far superior to the north in developement of resources and the merchants of Cadiz have certainly set the example to their countrymen.—[Marquis of Londonderry's Tour.

Marine Discoveries in Charleston Harbor,

The Charleston Mercury, thus speaks of some important facts by the Coast Survey in that harbor :

Rumor has been busy for some days past with reported discoveries in our harbor, and as much misapprehension and exaggeration has obtained currency respecting them, we will briefly state what we have reason to believe are the facts of the case. Lieut. Maffit, of the Coast Survey, in prosecuting his labors in our harbor, has made such discoveries as to induce the opinion that what is known as the Swash Channel, and heretofore used only for the smallest class vessels, affords as great a depth of water as the main Ship Channel, whilst its facilities for ingress are vastly superior. But this discovery derives additional importance from the fact that the bottom of the channel, in its shallowest parts, is composed of hard marl and shells, showing that the current has already swept away the lighter and softer materials, and affording a well grounded hope that, by a little assistance in dredging, any depth of water may be obtained. If further investigations, which will be diligently pursued, shall realize these anticipations, the importance of this discovery to the commercial interests of our city can hardly be over estimated.

Culture of Tea.

The French have introduced, it is said, with flattering prospects of success, the culture of tea into France, and have also attempted to introduce it into Algiers. In the wide space occupied by the kingdom of France, and by its possessions in Africa, the experimenters will have a sufficient range for the choice of the soil and climate which shall be found best adapted to the culture. The experiment thus far, it is said, has been most successful in France, and that the climate of Algiers has proved to hot. We are pleased to observe also that the subject is attracting the attention of our own people. So far we think the results have proved satisfactory, and we hope more attention will be paid to it. We have good tea growing latitudes.