THE MISSISSIPPI BUBBLE.

LOUIS XIV. having, by his extravagance, and by frequent expensive and unprofitable wars, created a debt of three thousand millions of livres, and by so doing, laid a foundation broad and deep, for the wide-spread ruin that followed, died at Versailles, on the first of September, 1715, in the seventy-eight year of his age, and the seventy-third of his reign. He was succeeded by his grandson, Louis XV, then a child five years old, of a feeble and delicate constitution; and the Duke of Orleans, a nephew of the late king, notwithstanding his dissolute morals, and his proximity to the throne, against the will of the great monarch, became Regent of France.

The valley of the Mississippi, including Illinois, was at that time held and occupied by Crozat, under a grant made by Louis XIV, in 1712. The little barter between the inhabitants of Louisiana and the natives, insignificant as it was, and the petty trade between the French and the other European settlements in their vicinity, was rendered almost profitless by the fatal monopoly of the Parisian merchant. The Indians were too numerous and too powerful to be controlled by his factors. The English had monopolized already a portion of the Indian trade. Every Spanish harbor on the Gulf of Mexico had been closed against his vessels, and every Frenchman in Louisiana was not only hostile to his interest, but was aiding and assisting to foment difficulties in the colony. Crozat's retrocession, therefore, of Louisiana to the crown, in 1717, was the result of necessity, as well as choice.

The misfortunes of La Salle, the ill success of Iberville and Crozat, were still remembered, and the bones of deceased emigrants, who had sought the Mississippi as their homes, still whitened its valley; yet visions of untold wealth, existing somewhere on its tributary waters, were again revived; and mines of silver and gold, plantations of indefinite extent and surpassing beauty, towns and cities, commerce and the arts, again invoked to replenish an exhausted treasury, and preserve, if possible, a sinking empire. Hence the Mississippi scheme, or Bubble, as it sometimes is termed.

John Law, the projector of this scheme, was born at Edinburg, Scotland, in 1761. At the age of fourteen, he was received into his father's counting-house, in Edinburg, as a clerk, and for about three years labored assiduously at his desk. His father's occupation was that of a goldsmith and banker. By his death, in 1688, a considerable fortune descended to this, his only son, who, at the early age of seventeen, sallied forth, without rudder or compass, into a wide, tumultuous, and deceitful world.

Young, vain, good-looking, tolerably rich, and unrestrained, he proceeded to London, where he frequented the most fashionable gaming-houses, and pursuing on all occasions a certain plan, based on abtruse calculations, he won considerable money, and gamblers envied his luck.

In gallantry he was equally fortunate, and ladies of exalted rank smiled graciously upon the handsome Scotchman.

Success, however, soon paved the way for reverses, and as the love of play increased in violence, it diminished in prudence. Great losses could only be repaired by greater ventures, and notwithstanding his long experience, at the close of an unlucky day, he lost everything he had. Goods, chattels, credit, money, and character, even the patrimony now his by a father's bounty.

His gallantry, at the same time, led him into serious difficulty, and a love affair, a slight flirtation with a Miss Villars, afterward the Countess of Orkney, exposed him to the resentment of a Mr. Wilson, by whom he was challenged to fight a duel. He accepted the challenge, killed his antagonist on the spot, was arrested the same day, and soon thereafter was indicted for murder, tried, found guilty, and sentenced to be hanged. This sentence was afterward commuted for a fine, upon the ground that the offense amounted only to manslaughter. An appeal was entered by the brother of the deceased, and the prisoner detained in jail, from whence he escaped and fled to the Continent.

For about three years he traversed the Continent, devoting his mornings to the study of finance and the principles of trade, and his evenings to the gaming-house, and returned to Edinburg in 1700, where he issued proposals for establishing a council of trade—they excited, however, but little attention.

Having failed in every project he attempted in Scotland, and his efforts to procure a pardon for the murder of Wilson, having proved abortive, he withdrew to the Continent to resume his occupation as a gambler, and to become the friend and the companion of princes. For fourteen years he roamed about Flanders, Holland, Germany, Hungary, Italy and France, supporting himself by successful play. During that period he studied the European character, became acquainted with the trade and resources of those nations through which he wandered, and was daily more and more convinced, that no country could prosper without a paper currency. At every gambling-house of note, in almost every capital in Europe, he was more known and appreciated in the doctrines of chance than any other. Having been expelled first from France, and afterward from Genoa, by the magistrates, who thought him a dangerous visitor, he repaired to Paris, where he became obnoxious to the police, and was ordered to quit the capital. He had made, however, the acquaintance of the gay Duke of Orleans, who promised to become his patron. Louis XIV. then occupied the throne. Law proposed his scheme of finance to the comptroller of the public funds, who was asked by the king if the projector was a Catholic, and being answered in the negative, Louis XIV. declined his services.

His scheme was next proposed to the reigning Duke of Savoy, who at once told the projector that his dominions were too limited for the execution of so great a project, and that he was too poor a potentate to be ruined; that he had no doubt, however, but the French people, if he knew anything of their character, would be delighted with a plan so new and so plausible, and advised him to go to France. Louis XIV. being now in his grave, and an infant on the throne, the Duke of Orleans, a friend and patron of Law, assumed the reins of government as regent of France.

The extravagances of the former monarch had thrown the national finances into the utmost disorder, and France was on the brink of ruin, when

John Law presented himself at court, and was cordially received. He insisted, that all the evils which had befallen France were owing, not to the improvidence, extravagance, or the malversation of those who had been, or were then in power, but to an insufficient currency. That the specie of France, unaided by paper money, was inadequate to its wants, and cited England and Holland as examples. He thereupon proposed to set up a bank, which should have the management of the royal revenues, and issue notes on that and landed security. That it should be administered in the king's name, and be subject to the control of commissioners, to be appointed by the States General.

On the 5th of May, 1716, a royal edict was published, by which Law and his brother were authorized to establish a bank, with a capital of six millions of livres, the notes of which should be received in the payment of taxes. They were issued, payable at sight, and in the coin current at *the time they were issued.* This last was a master stroke of policy, and immediately rendered his notes more valuable than the precious metals. The capital consisted of one-fourth specie, and three-fourths State securities. The stock was, of course, immediately subscribed. A thousand livres of silver might be worth their nominal value one day, and one-fifth less the next; but a note of Law's bank retained its original value. Law, in the meantime, publicly declared, that a banker deserved death who made issues without the means for their redemption. The consequence was, that the note shortly commanded a premium of "fifteen per cent," while the notes issued by government, as security for debts contracted by the extravagance of Louis XIV, were at seventy-eight and a half per cent. discount.

The contrast was so great, that Law's credit rapidly extended itself, and branches of his bank were at the same time established in Lyons, Rochelle, Tours, Amiens, and Orleans. The regent became astonished at its success; and paper money, which could thus aid metallic currency, it was thought, could supersede it altogether. On this fundamental error, both the regent and the French people, simultaneously acted.

Law, whose influence was now irresistible, next proposed his famous Mississippi scheme. This became afterward a connecting link between his history and ours, and rendered his name immortal.

Letters patent were issued in 1717, to establish a trading company to the Mississippi, known at first as the Western Company, to be divided into two hundred thousand shares, of five hundred livres each. Its capital to be composed of State securities at par; a hundred millions of the most depreciated stocks were thus absorbed, and the Government became indebted to a company, of its own creation, instead of individuals, for that amount. Through a bank previously established by Law, the interest in this portion of the public debt was punctually paid, in consequence whereof, an immediate rise in its value took place, from a depreciation of seventy-eight and a half per cent. to par. The person, therefore, who had purchased a hundred livres of State debts, which he could have done at any time for twenty-one and a half livres, and invested it in stocks of the Western Company, was now enabled to realize in cash, one hundred livres for his investment. Large fortunes were thus speedily acquired. Although the union of the bank with the risks and responsibilities of a commercial company, was ominous of its future destiny, the interest of its capital for one year, having been paid—not from its profits, for none had accrued, but from other

sources, all of them fictitious—public credit was apparently restored, as if by a miracle.

Crozat having resigned the commerce of Louisiana, it was transferred immediately to the Western Company, and the valley of the Mississippi inflamed at once the public mind. The whole of France saw, in prospect, its future glory, and beheld the opulence of coming ages already in their grasp.

On the 25th of August, 1717, eight hundred emigrants arrived in three vessels, and cast anchor near Dauphin Island, instead of ascending the Mississippi. They there disembarked; some perished for want of enterprise, some for want of food, some from the climate, and some prospered exceedingly. Hardy emigrants from Canada resorted thither, and these, by their enterprise, were more successful than any other colonists. The city of New Orleans was immediately founded among cane-brakes, and named after the dissolute regent, who "denied God, and trembled at a star."

Law's bank, in the meantime, had wrought such wonders in France, that new privileges were conferred upon it daily. It monopolized the tobacco trade; it monopolized, also, the slave trade; for the French colonies, it enjoyed the right of refining gold and silver; and was finally, in January, 1717, erected into the royal bank of France. The Western or Mississippi Company, was also merged into the "Company of the Indies," and new shares of its stocks were created, and sold at an enormous profit.

The Company of the Indies being now connected with the royal bank of France, its first attempts at colonization were conducted with careless prodigality. To entice emigrants thither, the richest prairies, the most inviting fields in the whole valley of the Mississippi, were conceded to companies, or individuals who sought principalities in America. An extensive prairie in Arkansas, bounded on all sides by the sky, was conceded to Law himself, where he designed to plant a city, and actually expended a million and a half of livres for that purpose. He also purchased and sent to Louisiana, three hundred slaves. Mechanics from France, and emigrants from Germany were, at his expense, transported thither, and gifts of great value were lavished by his agents upon those savage tribes with whom they had smoked the calumet. Notwithstanding, however, his efforts and his expenditures, that industry, that ecomomy and perseverance so essential to the prosperity of a new settlement was not there; and when a Jesuit priest, in 1729, visited the colony, thirty miserable Frenchmen alone remained, and those had been abandoned by their employers.

During this paroxysm, when every stockholder in the Western Company supposed that his coffers were already filled, and his happiness complete, Fort Chartres, near Kaskaskia, in Illinois, was projected. It was built by the company in 1720, to protect themselves against the Spaniards, with whom France was then at war, and was located near the center of the French settlements in Illinois. Eighty thousand shares were added to the stock of the royal India company, at one time. For these new shares, three hundred thousand applications were made, and Law's house was beset from morning until night, with eager applicants; and as it was some time before the list of fortunate stockholders could be completed, the public impatience rose to a pitch of frenzy.

Dukes, marquises, and counts, with their wives and daughters, waited for hours in the streets, before his door, to know the result; and to avoid

being jostled by the plebeian crowd, took apartments in the adjacent houses, the rents of which rose from a thousand livres, to twelve, and in some instances, sixteen thousand livres per annum. The demand for shares was so great, induced by so many golden dreams, that it was thought advisable to increase them three hundred thousand more, at five hundred livres each; and such was the eagerness of the nation to become subscribers, that three times the amount, if the Government had ordered it, would at once have been taken.

Law was now in the zenith of his glory, and the people in the zenith of their infatuation. The high and the low, the rich and the poor, were at once filled with visions of boundless wealth; and the people of every age and sex, rank and condition, were engaged in buying and selling stock. A cobbler, who had a stall near Mr. Law's, gained two hundred livres a day by letting it out, and finding materials to brokers and other clients. A humpbacked man, who stood in the street, as the story goes, gained considerable sums by lending his back, as a writing-desk, to the eager spectators. Law finding his residence inconvenient, removed to the Place Vendome, whither the crowd followed him; and the spacious square had the appearance of a public market, and a lease was also taken of the Hotel de Soissons.

Peers, judges, and bishops, thronged the Hotel de Soissons; officers of the army and navy, ladies of title and fashion, were seen waiting in the ante-chamber of Mr. Law, to beg for a portion of his India stock. He was unable to see one-tenth part of the applicants, and every species of ingenuity was employed to gain an audience. Peers, whose dignity would have been outraged if the regent had made them wait half an hour for an interview, were content to wait six hours, for the purpose of seeing this wily adventurer.

While this confidence lasted, an impetus was given to trade, which it had never known. Strangers flocked to the capital from every part of the globe, and its population was temporarily increased three hundred and five thousand souls. Housekeepers were obliged to make up beds in garrets, kitchens, and even stables, for the accommodation of lodgers. The looms of the country worked with uncommon activity. Provisions shared the general advance; wages rose in the same proportion. The artisan who had gained his fifteen sous a day, now gained sixty. An illusory prosperity everywhere prevailed, and so dazzled the eyes of the victim, that no one could perceive on the horizon a dark cloud, which announced the approaching storm.

Law, at this time, was by far the most influential person in the State; his wife and daughters were courted by the highest nobility, and their alliance sought by ducal and princely houses.

In 1720, an alarm was created. Some specie was demanded; Law became alarmed—the precious metals had left the kingdom. Coin, for more than five hundred livres, was declared an illegal tender. A council of state was held, and it was ascertained that two thousand six hundred millions of livres were in circulation; and on the 27th of May, the bank stopped payment. The people assailed Law's carriage with stones as he was entering his own door, and but for the dexterity of his coachman, he would have been torn to pieces. On the following day, his wife and daughters were attacked by the mob, as they were returning in their carriage, from the races. The regent being informed of these occurences, sent him a guard for his protection. Finding his own house, even with this guard,

insecure, he repaired to the palace, and took apartments with the regent. He afterwards left the kingdom; his estates and library were confiscated, and he died at Venice, in extreme poverty, in 1729.

Such was the fate of John Law, who had caused several millions of livres to be expended in Illinois, and, for several years had used the Mississippi valley as the means, or the instrument, of his ambition. Stock-jobbers and speculators had used it also for a similar purpose; and New-Orleans was more famous in Paris when covered with cane-brakes, than it has been since.

Law held, that the currency of a country was the mere "representative of its moving wealth;" that it need not, therefore, of itself, possess intrinsic value; that the wealth of a nation may be "indefinitely increased by an arbitrary infusion of paper;" that credit consisted in the "excess of circulation over immediate resources; and, that the "advantage of credit is in the direct ratio of that excess." Hence the whimsical project of collecting the gold and silver of a kingdom into one bank, and supplying its place by an exclusive paper currency.

EL DORADO.

AS the first conquerors of the Spanish Main penetrated into the interior, they received information from the various Indian tribes, which wrought strongly upon their excited imaginations and avaricious feelings. They were assured that by marching a considerable distance to the south, they would come to a region on the shores of a broad lake, inhabited by Indians of a peculiar character, known by the name of *Omegas*. These people were represented as highly civilized, living under regular laws, principally in a large city, the houses of which were covered with silver. According to the accounts, the magistrates and ministers of religion wore habits of massy gold. All their furniture was of gold and silver. The nation, equally populous and warlike, kept on foot armies so formidable as to render them the terror of the surrounding tribes. In every part of Venezuela and Caraccas, to which the Spaniards directed their steps, they received similar accounts, and from Indians too far separated by distance to have combined in the invention of the tale. It did not appear that superstition had any share in these traditions, for no supernatural virtue or power was attributed to the Omegas.

These accounts were confirmed by information from other quarters. In Peru, Pizarro and his followers received intelligence of the existence of a nation, called the Omaguas, on the borders of a lake to the north-east of that country. The representations agreed with those of Venezuela, respecting the riches of these people, their power and policy. It was said that after the destruction of the Incas, a younger brother of Atahualpa had fled from Peru, carrying with him the greater part of the royal treasures, and founded a greater empire in the north than that of which he had been

deprived. Sometimes this emperor was called the Great Paytiti, sometimes the Great Moxo, sometimes the Enim, or Great Paru. It is undeniable that Manco Inca, the brother of Atahualpa, made his escape to the regions east of the Cordilleras; the remainder of his history is not clearly known.

An Indian at Lima affirmed that he had been in the capital of this country, the city of Manoa, of which he gave a minute description. Three thousand workmen were employed in the street of the silversmiths. The columns of the emperor's palace were of porphyry and alabaster; the galleries of ebony and cedar; the throne was of ivory, and the ascent to it by steps of gold. The palace stood on a small island in the lake. It was built of white stone. At the entrance were two towers, and between them was a column twenty-five feet in height; on the top of this was a large silver moon; and two *pumas*, or American lions, were fastened to the base with chains of gold. Beyond the place occupied by these was a quadrangle planted with trees, and watered by a silver fountain, which spouted through four golden pipes. The gate of the palace was of copper. Within, a golden sun was placed on an altar of silver, and four lamps were kept burning before it, day and night.

This territory obtained the name of *El Dorado*, which means "the gilded," and is variously derived. According to some accounts, it refers to the costume of the emperor, who was anointed every morning with a certain precious and fragrant gum, after which gold-dust was blown upon him through a tube, till he was encrusted with gold. This the barbarian thought a more magnificent and costly attire than could be afforded by any other potentate in the world. According to others, it was the chief priest who was gilded. All these stories found a ready belief in the minds of the Spaniards, fashioned to credulity by the wonders of the New World, and the obscurity in which much of it long remained involved. They who could believe in the existence of a fountain whose waters had the virtue to restore to youth and beauty the old and decrepit, could have no difficulty in giving their faith to the golden marvels of El Dorado, a region which differed from the known part of the continent only in enjoying a superiority in wealth. The accounts of Peru itself had been equally incredible before being verified by the conquest.

No geographical fiction ever occasioned so vast an expenditure of human life. The attempts to discover this powerful region cost the Spaniards more men and treasure than all their substantial conquests in the New World. A history of the expeditions in search of El Dorado would form a most singularly curious and interesting volume. There is nothing in romance to surpass the wonderful dangers, privations and sufferings, endured by the adventurers in these undertakings. Yet neither the disasters, nor even the almost total destruction of many of the bands, prevented others from following them. New adventurers were found to follow in quick succession; although the former had returned discomfited and disappointed, the last always flattered themselves with the hope that the discovery of El Dorado would be accomplished by them. The mania continued for ages, and was considered by some of the Spanish religionists as a device of the devil to lure mankind to their destruction.

Among these daring spirits was Philip Von Hutten, whose expedition is so much the more worthy of notice, as it was very nearly successful, and actually substantiates a part, at least, of the story of El Dorado. As

this singular and interesting portion of American history is probably not familiar to most of our readers, we shall dwell with some minuteness upon its details, particularly as they furnish materials the least equivocal which can be found, respecting the explanation of the great mystery. Von Hutten was one of those German adventurers who formed the first expedition of the Welsers to Venezuela, in 1528. Less savage than his companions, he did not yield to them in ambition and intrepidity. From the time of his arrival in America, to his death, a period of fifteen years, he seemed scarcely to have enjoyed a single instant of repose. Always on the march, fighting the Indians, living on wild fruit, exposed to all the extremes of an insalubrious climate, his life was a tissue of dangers and sufferings. In the course of his expeditions into the country in 1541, chance led him to a place where he learned that Quesada, one of the conquerors of Santa Fe de Bogota, had just passed with a body of infantry and cavalry, in quest of El Dorado. The news was true. Quesada marched a long distance, suffered much, and discovered nothing. Von Hutten determined to follow in his track, in order to obtain at least a part of the riches of El Dorado, should he arrive too late to share in the conquest.

After many days of incredible fatigue, he reached the province of Papamena. He found there an Indian equally distinguished by his rank and superior understanding. Von Hutten told him of his design. The Indian answered, with every appearance of good faith, that by continuing his march in that direction, he would only find uninhabited countries and deserts, where his men would starve to death. But if he wished, the Indian added, he would conduct him in person to a region abounding in gold and silver; this country was to the east, on the Guayuava, near the Lake of Parima. The Indian even showed him some apples of gold which his brother had lately brought from thence. Von Hutten saw fit to discredit this account, and pursued the route followed by Quesada, taking the Indian with him as a guide. But after a march of eight days, amid all sorts of difficulties and obstructions, the Indian, seeing that nothing could change the resolution of the Christians, took the opportunity of a dark night to escape. His flight, together with the badness of the roads, excited murmurs against the leader of the band, who, however, continued obstinately bent on pushing forward. All the soldiers complained of him for not following the advice of the Indian. He alone remained immovable in his resolution.

A few days after, they discovered a mountain resembling that at the foot of which El Dorado was said to be situated; but, on exploring it, their hopes were disappointed. The army, now reduced by intense fatigue and suffering, were obliged to pass the rainy season here, and endured the most cruel effects of hunger. Ants and reptiles were their only food. Many of the men swelled up and died in the most excrutiating agonies; others lost their hair, their eyebrows, eye-lashes and nails. As soon as the favorable season returned, Von Hutten began his retreat to Coro, then the capital of Venezuela. On his march, he was obstructed by inundations, and halted till the waters should subside, at a village called Nuestra Senora de Fragoa. While his men were reposing themselves, and thought only of the pleasure of returning home, their commander, irritated at his disappointment, fixed his mind upon new endeavors to retrieve his fortunes. From the Indians of the neighborhood he learned that there was a region in a certain quarter,

richer by far than any that had yet been discovered. The inhabitants, called the Omegas, were represented as a warlike and ferocious race. Other Indians called them Itaguas, but they all agreed as to the topographical situation of the country.

Fired anew with brilliant hopes, Von Hutten determined to march immediately for the Omegas. His army was now reduced to forty men; but as soon as the plains were clear of water, he moved forward. The Indians offered to conduct him safely to the banks of the Guayuava, and they kept their word. He marched to the river by roads tolerably commodious, and there acquired fresh information. The natives told him that the city of Macatoa, through which he must necessarily pass, was on the other side of the river; this he could not cross without a canoe. One of these Indians appeared to him so sincere, that he commissioned him to go and apprize the inhabitants that he was there with forty men, on his way to more distant provinces; and that he requested a passage and the friendship of the natives, to whom he offered his own. The Indian fulfilled this commission, and returned the next morning with the son of the cacique, who was sent by his father to offer his friendship and hospitality to the strangers. Von Hutten, with his men, proceeded to Macatoa, and was received in the kindest manner.

The cacique, being told of their design, informed them that the country of the Omegas was in fact full of gold and silver, but that its population was so great, and so disciplined to war, that their attempt, with so small a body of men, was most rash and impracticable. No prospect of danger or difficulty, however, could shake the inflexible determination of the commander; and he therefore continued his march. The cacique furnished him with guides as far as the next town, which was distant nine days' journey, and gave him also recommendations to the cacique, who was his friend. This march was performed with tolerable comfort, as the roads through the wilderness were well wrought. The second cacique received the strangers with great affability. Like his friend of Macatoa, he told the general that his undertaking was utterly extravagant and desperate; but he also assured him that all which had been related of the Omegas was true. No nation had ever attacked them with success, and it was contrary to common sense to suppose that forty men, even though they had the strength and courage of lions, could subdue a whole nation highly populous and warlike. These representations, however, did not stagger the obstinate and self-willed leader; and the cacique, finding him resolved to make the attempt, consented to guide him to the country he was seeking; but warning him and his men, at the same time, to bear in mind that he had done his utmost to avert their calamitous fate. All this was heard with coolness and indifference; nothing was thought of but the region of gold and silver.

After four days' march, they arrived at a mountain, on the skirts of which they saw four or five villages surrounded by well cultivated fields; further off their eyes were ravished by the prospect of a broad and most delightful valley, in which stood a city so extensive as to stretch beyond their view. The streets appeared to be regularly laid out, and the houses well and compactly built. "There," exclaimed the cacique, "is the capital of the Omegas. Behold this famous region whose riches the Spaniards so ardently covet. That edifice in the centre is the dwelling of the governor, and the temple of a number of gods. The population of the place is

immense, and the order that is preserved there is admirable. The houses which you see scattered on the sides of the hills round the city are inhabited by those who practice agriculture, while the others exercise the trade of war. Now that you yourself see the strength of these people, you can reflect anew on the temerity of your project. If you persist, I must withdraw, and pray the gods to protect your lives."

Nothing could now repress the ardor of the adventurers, inflamed by the sight of the object which they had been so long pursuing. They took leave of the cacique, and marched immediately to the city. On approaching some houses, they met a few of the Indians, who, struck with surprise at the sight of men with beards, white faces, and in strange dresses, instantly took to flight. They were pursued, and Von Hutten unfortunately overtook and seized one of them. The Indian was armed with a lance, and instantly aimed a blow at his adversary, who, finding himself severely wounded between the ribs, quitted his hold, and the Indian escaped. The adventurers soon heard in the city a great noise of drums and other instruments of war, mingled with the most terrific cries. Night was now approaching, and they retreated, carrying off their wounded commander in a hammock.

They passed the night on a neighboring mountain, and the next morning beheld an army of several thousand Indians marching out of the city in pursuit of them. Von Hutten was unable to fight, and resigned the command to his chief officer, Limpias. A battle now ensued, similar to the conflicts between the soldiers of Cortez and the Mexicans. The superior arms, valor and resolution of the Spaniards, enabled them to resist the attacks of an immense throng of assailants. Not one of them was killed; and the Omegas retreated, leaving the field of battle covered with heaps of their slain. But the Spaniards were now convinced of the desperate character of their undertaking, and unanimously agreed that the conquest of the Omegas could not be effected without a much stronger military force. They returned to the cacique who had acted as their guide, and here reposed themselves for some days. The general was cured of his wound, and, after obtaining from the cacique all the information necessary for rendering a second journey more rapid and easy, he took his departure for Coro, intending to organize a new expedition against the Omegas; but before he reached that place, he was assassinated at the instigation of a usurper named Carvajal, who by means of a forged commission had seized upon the government of Venezuela, and did not think himself secure in his usurpation till he had got rid of Von Hutten, who, it seems, had been appointed lieutenant general. His most faithful adherents were also assassinated with him. Such was the close of this memorable expedition, which occupied the space of four years.

Among the numerous adventurers who shared in the expeditions for the discovery of El Dorado, was Sir Walter Raleigh, an Englishman of the highest talent and character. A man of his chivalrous feelings could not but be filled with admiration at the courage and energy which had been exhibited by the Spaniards in the pursuit of this romantic and brilliant object. Having also a firm belief in the real existence of El Dorado, he determined to make an attempt to discover it himself. The multiplied failures of the Spaniards produced in him a strong conviction, not that they had wasted their strength in pursuit of a phantom, but only that they had

missed the right way. In classing Raleigh, however, with the knights-errant of El Dorado, we must, in justice to his memory, state, that his aims were of a far higher order than those of other adventurers. A part of his design was to conquer and colonize Guiana, and thus to extend the sphere of English industry and commerce.

In February, 1595, Raleigh sailed from Plymouth with five vessels and above a hundred soldiers. On arriving at Trinidad, he made prisoner of the governor, Berrio, who was himself preparing an expedition for El Dorado on a magnificent scale. From hence he sailed to the mouth of the Orinoco, the navigation of which was entirely unknown to the English, but which it was necessary to ascend in order to reach the grand object of the voyage. A hundred men embarked in boats, as the ships drew too much water to proceed up the stream. In these they continued to advance for a month, exposed to the open air, sometimes under a burning sun, sometimes amid torrents of rain, with no shelter, and no resting-place but the hard boards of their boats. Raleigh's account of their progress through the labyrinth formed by the numerous outlets of the great stream, of their alternate hopes and fears, wants and fortuitous supplies, the aspect of the country and its productions, the natives and their chiefs, and of their entrance at last into the grand channel of the magnificent Orinoco—is full of interest and variety, and occasionally presents descriptive passages of great beauty, joined also with traits of most extravagant credulity.

After ascending the river about one hundred and eighty miles, the rapid and terrific rise of its waters compelled them to descend. Raleigh firmly resolved soon to return, took formal possession of the country, and made the caciques swear allegiance to Queen Elizabeth. He returned to England at the end of the summer, and published an account of his voyage, containing, in addition to ascertained facts, many marvellous tales which he had picked up among the Indians. His determination to visit America again was inflexible, yet it was not till 1613 that he sailed on his new expedition. This was more disastrous than the former, but we have not room to give the particulars.

The belief in the existence of El Dorado could not be eradicated from the minds of the inhabitants in that quarter. So late as the year 1780, a wild Indian presented himself before the governor of Spanish Guiana, declaring that he came from the borders of Lake Parima. He was plied with questions, which he answered with as much perspicuity and precision as could be expected of a savage who spoke mostly by signs. He succeeded in making them understand that on the banks of that lake was a city whose inhabitants were civilized and well disciplined in war. He said much of the beauty of the buildings, the neatness of the streets, the regularity of the squares, and the riches of the people. The roofs of the houses were of gold or silver, and the high priest he said was powdered with gold dust. The Indian sketched on a table with a bit of charcoal a plan of the city. The governor was fully convinced of the truth of his representations, and engaged him to serve as a guide to the place.

A body of Spaniards immediately set out for the discovery. They traveled nearly five hundred leagues to the south, by the most difficult and often frightful paths. Hunger, the swamps, the rocks and the precipices, soon wore them out, and most of them died. When the remainder thought themselves within four or five days' journey of the city, their guide disap

peared in the night. This utterly dismayed them. They knew not where they were, and after wandering about for some time, all of them perished except Don Antonio Santos. The idea of disguising himself as an Indian occurred to him. He threw off his clothes, stained his body with *roco*, and introduced himself among the savages by means of the knowledge he possessed of many of their languages. He continued a long time among them, and at length fell into the hands of the Portuguese on the Rio Negro. After a long detention, they sent him home, and he died in Guiana in 1796.

It is impossible not to entertain a great curiosity as to the true origin of a story which led to such results as we have related. Men of intelligence, judgment, and acuteness, some of whom have resided many years in that country, have announced their serious opinion that the story of El Dorado is not destitute of foundation in reality. Unless we suppose the account of Von Hutten to be a complete fabrication, which does not appear warrantable, occurring as it does in the work of a respectable historian, we have evidence at least of the existence of a warlike nation, more civilized than the rest of the Indians, who had built on the borders of Lake Parima a large and handsome city. The eminent traveler Humboldt adopts another method of solving the mystery. While engaged in exploring the countries upon the upper Orinoco, he was naturally led to direct his attention to the origin of a tale of such celebrity which was still credited in that quarter. "When near the sources of the Orinoco," he says, "we heard of nothing but the proximity of El Dorado, the Lake Parima, and the *ruins of its capital!*" He attempts to account for the tales of El Dorado in a geological way. According to his conjecture, there may be islets and rocks of mica slate and talc within and around the lake, which, reflecting from their shining surfaces the rays of an ardent sun, appear to form a gorgeous city, whose temples and houses seem to be overlaid with gold and silver. He supposed that this scene was thus formed by the imagination into the gilded metropolis. Humboldt attempted to penetrate to this spot, but was hindered by the Guayacas, a tribe of Indian dwarfs.

The story of El Dorado remains, therefore, still involved in deep obscurity. We cannot, however, withhold our belief that it had some foundation in truth. The reader, perhaps, will be surprised to learn that the region which is pointed out as the locality of this celebrated place has never, to this day, been traversed by a European. Its great distance from the sea, and the impassable wilderness that surrounds it, have repelled the arms of the conqueror from its borders, while the bravery or ferocity of its inhabitants forbids every traveler to approach it. Is it improbable that a great city, or the ruins of one, should exist in this unknown territory? A few years ago, who suspected that the plains and forests of Central America and Yucatan contained those immense and magnificent ruins brought to light by the researches of modern travelers? Cortez, in his march to Mexico, passed within ten miles of the great city of Copan, without hearing of it.

Mr. Stephens does not hesitate to avow his opinion that aboriginal cities may yet be found, in the unexplored regions of South America, peopled by unconquered natives. The probability of such facts is still greater in respect to a district more remote from European establishments, and which possesses positive traditions attesting their existence.

POMPEII AND HERCULANEUM.

POMPEII was an ancient city of Campania, formerly celebrated for its commerce, and situated twelve miles to the south-east of the present site of Naples. It was destroyed by an earthquake, A. D. 63, and, together with Herculaneum, was buried by a stream of lava and showers of ashes during an eruption of Mount Vesuvius fourteen years later. It remained concealed for nearly seventeen hundred years. In the year 1738, however, the Spaniards having conquered the country, Charles of Spain took up his residence at Portici, a village built upon the spot of ancient Herculaneum. A well being here dug to a considerable depth, traces of buildings were found, and excavations being pushed to a greater depth, the theatre of Herculaneum was laid open, and an impetus given to further discoveries. In 1750, Pompeii was explored. The bed of ashes was about eighteen feet in depth. The ruins of an extensive amphitheatre and of many handsome buildings were discovered. Twenty-seven female skeletons were found near a door, and many ornaments for the neck and arms, silver and bronze vessels, and other works of art. It is supposed that most of the inhabitants had time to save themselves by flight.

Two-thirds of the town are still covered, but it is estimated that it was originally three-fourths of a mile in length by nearly half a mile in breadth. The walls are from eighteen to twenty feet high, and contained many main gates, of which six have been uncovered. Twenty streets, fifteen feet wide, paved with lava, and having foot-ways three feet broad, have also been excavated. The houses are joined together, and have generally only two stories, with terraces for roofs. The fronts are often shops, with inscriptions, frescos, and ornaments of every kind. The principal rooms are in the rear; in the center is a court, which often contains a marble fountain. A forum, surrounded with handsome buildings, two theatres, an arena, temples, baths, fountains, statues, urns, utensils of all sorts, &c., have been discovered. Most of the objects of curiosity have been deposited in the museum of Portici and Naples; among them are a great number of manuscripts.

The history of some of these manuscripts is curious; one thousand six hundred and ninety-six were discovered at once in Herculaneum, and the expectations of antiquarians were raised very high as regards the discoveries to be made from them. They have, however, resisted almost every attempt made to unroll them; and, in 1819, only four hundred and seven out of the whole number had yielded. They are of a cylindrical form, having the appearance of tobacco rolls, and are very much charred by the action of the hot ashes. Out of these four hundred and seven only eighty-eight are legible; twenty-four others had been sent as presents to foreign princes, and only about eighty of the remaining one thousand two hundred and sixty-five presented any chance of successful unrolling or deciphering them. The contents of those which were legible have from time to time been published by learned societies.

The appearance of the buried cities is thus described by a late traveler: "We approached the disinterred city through an avenue of tombs rising above the road on either side. On approaching the gate, the first object to be noticed is an inn, such as country people still, in all the world, know well how to use, in order to lessen the expense of a visit to the city. At each side of the gate are sentry-boxes. Passing within, we found ourselves in one of the principal streets of the city. The houses are generally but one story high; the roofs have quite disappeared, crushed beneath the weight of the volcanic ashes; but the walls stand perfectly firm. The streets are very narrow, and the pavement, composed of pieces of lava, is deeply indented by the wheels of Pompeian carriages. Many of the houses are built of lava, the fiery stream of some ancient eruption, long before the brief records of man began to note the awful voice and action of Vesuvius! Pompeii was destroyed, not by lava, but by ashes—which accounts for the admirable preservation of the objects found there. The calamity was not so sudden, but that most of the inhabitants were able to save themselves by flight: hence very few human skeletons have been found. From the absence in many of the houses of things that must have been in them at the moment of the disaster, it is supposed that the people seized on what was most precious and carried it with them; or perhaps returned after the work of ruin was done and recovered what they could by excavation. The ashy tempest which buried this fair city raged for more than a week—swept quite across the Mediterranean, and left traces of itself on the distant shores of Egypt. Naples is just the same distance from the volcanic crater as Pompeii, and by a slight variation of circumstances might have been the buried city. Pompeii was once—perhaps at the time of the fatal eruption—on the sea, and its wharves were laved by the river Sarnus. The sea has long since retired to the distance of three-fourths of a mile, and the river has shrunk to a mere rivulet. After lying beneath ashes and cinders for sixteen hundred and seventy-six years, indications of its site were accidentally discovered. The excavations were begun in 1755. As yet, but one-third of the city has been disinterred; but this has revealed to us objects of the deepest interest—including eighty houses, an immense number of small shops, the public baths, two theatres, two halls of justice called *basilicas*, eight temples, the prison, the amphitheatre, and other public edifices, besides a great number of fountains and tombs.

"As you pass these silent and desolate streets, you are curious to learn all that is known of each house. You have your book and your map in your hand, and your guide at your side prepared to supply every deficiency by a ready memory, or by a readier invention. We are now in the street which leads from the gate, at which we entered, to the forum. On our left is a shop where drinks were sold; it has a marble counter, from which the passers-by could take their refreshment without going within. I fear they were in the habit of drinking hot punch in those days; for the circular prints of the hot glasses or other vessels are still distinctly visible on the smooth marble. On the right stands the house of a musician—on the left, again, a house which belonged to the vestals. Then comes the customhouse, the house of a surgeon, in which were found the instruments already described. In what I might call grocers' shops, the large earthern jars which contained wine, oil, and other articles, are still arranged around the wall. They were not movable, their contents being dipped up by ladles

of which the museum at Naples contains a great many specimens. A baker's shop arrested my attention. The front portion upon the street contained the articles made ready for use. Behind this was the mill for grinding the grain, in the form of a coffee-mill—consisting of a solid cone of very hard lava, fitted to a hollow cone of the same material; still further in the rear are the ovens: so that the whole establishment is quite comprehensive.

"The general plan of the houses is that of a quadrangle, built round an open court. Nearly all the rooms open into this court, at the centre of which is a marble fountain or cistern of water, and their only light is derived from the doors. From the small size of the apartments, it is supposed that hospitality could not have been one of the virtues of the Pompeians. They probably, as the inhabitants of those countries still do to a great extent, spent much of their time in the forum, in the public baths, at the theatres, or at the amphitheatre: here they saw everybody, conversed with everybody, and had therefore little motive for social entertainments at their own houses.

"The baths of Pompeii are both spacious and splendid. They are divided into three separate apartments: the first for servants and for fires, the second for the use of the women, and the third for the men. All these apartments are beautifully adorned with frescoes, and with figures wrought in stucco, both on the ceilings and on the walls. The basin for cold water is twelve feet and ten inches in diameter, and is lined throughout with white marble. A bronze window-frame was found in one of these baths, containing four beautiful panes of glass, which prove that this elegant comfort was not unknown to the Pompeians. Nor is this the only evidence of their skill in this kind of manufacture: for a large number of vases, bottles, and glasses of very elegant patterns, and beautiful material, have been brought to light. Some idea of the extent and magnificence of these baths may be formed from the fact that one thousand lamps were found here. Imagine these magnificent apartments with their bronzes, their marble statues, their relievoes, all radiant with the light of a thousand lamps, and thronged with a gay and graceful people, in easy flowing costume, breathing the balmiest air that was ever breathed without the gates of paradise—and you have a picture of one scene in Pompeian life.

"The fact that most of the inhabitants of this unfortunate city were allowed to make their escape from impending ruin, induces us to sympathize all the more tenderly with those ill-fated victims who perished. I have elsewhere alluded to the skeleton of Diomede, found in his splendid villa without the gate; a still more touching memorial found in the same villa, is believed to be the remains of the mistress of the house and her infant child. The wet ashes had enveloped the mother with the child locked in her arms. There was found every feature and limb of both, exquisitely rounded. Even the linen which had enveloped her young and beautiful form was found adhering to the mould. But nothing of that fair form remained except the skeleton mother clasping her skeleton child—a gold chain about her neck, and gold rings on her bony fingers!

"In the prison were found two skeletons with their bones still held by the shackles either of justice or tyranny! In the niche nearer the forum were found the remains of a soldier, his skeleton hand still grasping a lance!

"I could not content myself with a single visit, but returned to spend a second day among these unique and deeply interesting ruins. The excavations were going forward, and I had the pleasure of seeing the walls of a house laid bare, which had been hid from the light of day for eighteen hundred years. The frescoes on these walls were as bright as if the pencil had traced them but yesterday! The excavations are conducted by the government, and the premises are guarded night and day against depredations. Visitors are always attended by guides authorized by the government.

"To explore Herculaneum* is a more difficult enterprise. It was buried beneath solid lava, or if beneath loose ashes and mud, these materials have consolidated into a gray rock, which makes excavation a slow and costly work. Nevertheless, a magnificent theatre, two temples, a portico, and several private houses, were excavated, but all except the theatre have been filled up, and the work is not now in progress. We descended into the theatre, and wandered through its dark spacious caverns—formed by excavation, for it was as completely filled with solid rock as a mould with molten lead. Many interesting and beautiful works of art were found here. The depth of our descent was between seventy and eighty feet below the surface of the rock. The modern town of Portici is built over the buried city; and while exploring the theatre, we could hear carriages rumbling along the street over our heads."

GUIZOT ON THE AMERICAN REVOLUTION.

GEORGE III. had been seated on the throne sixteen years, when, at three thousand miles from his capital, more than two millions of his subjects broke the ties which bound them to his throne, declared their independence, and undertook the foundation of the republic of the United States of America. After a contest of seven years, England was brought to recognize that independence, and to treat upon equal terms with the new state. Since that time sixty-seven years have elapsed, and, without any violent effort, without extraordinary events, by the mere development of their institutions and of the prosperity which is the natural attendant on peace, the United States have taken an honorable place among great nations. Never was so rapid an elevation, so little costly at its origin, or so little troubled in its progress.

It is not merely to the absence of any powerful rival, or to the boundless space open to their population, that the United States of America have owed this singular good fortune. The rapidity and the serenity of their rise to greatness are not the result of such fortunate accidents alone, but are to be attributed in a great degree to moral causes.

* Accidently discovered in 1726, in digging a well.

They rose into existence as a state under the banner of right and justice. In their case, too, the revolution from which their history dates was an act of defense. They claimed guarantees and asserted principles which were inscribed in their charters, and which the English parliament itself, though it now refused them to its subjects, had formerly triumphantly claimed and asserted in the mother country, with far greater violence and disorder than were occasioned by their resistance.

They did not, to speak strictly, attempt a revolution. Their enterprise was, no doubt, great and perilous. To achieve the conquest of their independence, they had to go through a war with a powerful enemy, and the construction of a central government in the place of the distant power whose yoke they threw off; but in their local institutions, and those which regarded the daily affairs of life, they had no revolution to make. Each of the colonies already enjoyed a free government as to its internal affairs, and when it became a state found little change necessary or desirable in the maxims and organization of power. There was no ancient order of things to fear, to hate, to destroy; the attachment to the ancient laws and manners, the affectionate reverence for the past, were, on the contrary, the general sentiments of the people. The colonial government, under the patronage of a distant monarchy, was easily transformed into a republican government under a federation of states.

Of all the forms or modes of government, the republican is unquestionably that to which the general and spontaneous assent of the country is the most indispensable. It is possible to conceive of an absolute monarchy founded by violence, and indeed such have existed; but a republic forced upon a nation, popular government established contrary to the instinct and the wishes of a people—this is a spectacle revolting equally to common sense and to justice. The Anglo-American colonies, in their transition into the republic of the United States, had no such difficulty to surmount; the republic was the full and free choice of the people; and in adopting that form of government they did but accomplish the national wish, and develop instead of overturning their existing institutions.

Nor was the perturbation greater in social than in political order. There were no conflicts between different classes, no violent transfer of influence from one order of men to another. Though the crown of England had still partisans in the colonies, their attachment had nothing to do with their position in the scale of society; indeed the wealthy and important families were in general the most firmly resolved on the conquest of their independence and the foundation of a new system. Under their direction the people acted, and the event was accomplished.

And if society underwent no revolution, so neither did men's minds. The philosophical ideas of the eighteenth century, its moral skepticism and its religious unbelief, had no doubt penetrated into the United States, and had obtained some circulation there; but the minds to which they found entrance were not entirely carried away by them; they did not take root there with their fundamental principles and their ultimate consequences: the moral gravity and the pratical good sense of the old Puritans survived in most of the admirers of the French philosophers in America. The mass of the population remained profoundly Christian, as warmly attached to its creed as to its liberties.

While they rebelled against the authority of the King and the Parlia-

ment of England, they were submissive to the will of God and the precepts of the Gospel, and while struggling for independence, they were governed by the same faith which had conducted their ancestors to this land, where they laid the foundations of what was now rising into a state.

Three great men, Cromwell, William III., and Washington, stand forth in history as the heads and representatives of those supreme crises which have determined the fate of two great nations. For extent and energy of natural talents, Cromwell is perhaps the most remarkable of the three. His mind was wonderfully prompt, firm, just, supple, and inventive, and he possessed a vigor of character which no obstacle could daunt, no conflict weary; he pursued his designs with an ardor as exhaustless as his patience, whether through the slowest and most tortuous ways, or the most abrupt and daring. He excelled equally in winning men, and in ruling them by personal and familiar intercourse; he displayed equal ability in leading an army or a party. He had the instinct of popularity and the gift of authority, and he let loose factions with as much audacity as he subdued them. But born in the midst of a revolution, and raised to sovereign power by a succession of violent shocks, his genius was, from first to last, essentially revolutionary; and though he was taught by experience the necessity of order and government, he was incapable of either respecting or practicing the moral and permanent laws on which alone government can rest. Whether it was the fault of his nature, or the vice of his position, he wanted regularity and calmness in the exercise of power; had instant recourse to extreme measures, like a man constantly in dread of mortal dangers, and, by the violence of his remedies, perpetuated or even aggravated the evils which he sought to cure. The establishment of a government is a work which requires a more regular course, and one more conformable to the eternal laws of moral order. Cromwell was able to subjugate the revolution he had so largely contributed to make, but he did not succeed in establishing anything in the place of what he had destroyed.

Though less powerful than Cromwell by nature, William III. and Washington succeeded in the undertaking in which he failed; they fixed the destiny and founded the government of their country. Even in the midst of a revolution they never accepted nor practised a revolutionary policy; they never placed themselves in that fatal situation in which a man first uses anarchical violence as a stepping stone to power, and then despotic violence as a necessity entailed upon him by its possession. They were naturally placed, or they placed themselves in the regular ways and under the permanent conditions of government. William was an ambitious prince. It is puerile to believe that, up to the moment of the appeal sent to him from London in 1688, he had been insensible to the desire of ascending the throne of England, or ignorant of the schemes long going on to raise him to it. William followed the progress of these schemes step by step; he accepted no share in the means, but he did not repel the end; and, without directly encouraging, he protected its authors. His ambition was ennobled by the greatness and justice of the cause to which it was attached—the cause of religious liberty and of the balance of power in Europe. Never did man make a vast political design more exclusively the thought and purpose of his life than William did. The work which he accomplished on the field or in the cabinet was his passion; his own

aggrandizement was but the means to that end. Whatever were his views on the crown of England, he never attempted to realize them by violence and disorder. His mind was too well regulated not to know the incurable vice of such means, and too lofty to accept the yoke they impose. But when the career was opened to him by England herself, he did not suffer himself to be deterred from entering on it by the scruples of a private man; he wished his cause to triumph, and he wished to reap the honor of the triumph. Rare and glorious mixture of worldly ability and Christian faith, of personal ambition and devotion to public ends!

Washington had no ambition; his country wanted him to serve her, and he became great rather from a sense of duty than from taste; sometimes even with a painful effort. The trials of his public life were bitter to him; he preferred independence and repose to the exercise of power. But he accepted, without hesitation, the task which his country imposed on him, and in fulfilling it did nothing to diminish its burden. Born to govern, though he had no delight in governing, he told the American people what he believed to be true, and persisted in doing what he thought wise, with a firmness as unshaken as it was simple, and a sacrifice of popularity the more meritorious as it was not compensated by the pleasures of domination. The servant of an infant republic, in which the democratic spirit prevailed, he won the confidence of the people by maintaining its interests in opposition to its inclinations. While founding a new government, he practised that policy, at once modest and severe, measured and independent, which seems to belong only to the head of an aristocratic senate ruling over an ancient state. His success does equal honor to Washington and to his country.

Whether we consider the general destiny of nations, or the lives of the great men whom they have produced; whether we are treating of a monarchy or a republic, an aristocratic or a democratic society, we gather the same light from facts; we see that the same laws determine the ultimate success or failure of governments. The policy which preserves and maintains a state in its ancient security and customary order is also the only policy that can bring a revolution to a successful close and give stability to the institutions whose lasting excellence may justify it to succeeding ages.

THE CHINESE WALL,

MAY be considered as one of the greatest of human constructions. It extends 1,500 miles, and is said to have been built in five years, several millions of persons being employed upon it. It was built 205 years before Christ, under the Emperor Chi-hoang-ti, who is famous for having had all the Chinese books burned, and for founding the dynasty of Tsin.

The object of this wall was to keep off the Tartars, who were very troublesome to the Chinese, making frequent inroads upon them, for the purpose

of plunder. In order to build the wall, a conscription was made, and every third laboring man in the empire, was called upon and obliged to work, having no other pay than his food.

This wall is carried over mountains and across valleys and rivers. Where required it rests upon arches. At distances of about a hundred yards, it has high fortified towers, for defense; it has also gates, around which there are usually villages. In its strongest parts, and for hundreds of miles in extent, this wall is so thick as to allow six men on horseback to ride upon it. The structure consists of two parallel walls of solid masonry, filled in between with earth; the top is paved with stone.

In many places this wall was less lofty and of inferior thickness; and for many years it has in parts so fallen into decay as to be easily passed. The Tartar districts on the north of China having been long incorporated into that empire, it has been unnecessary to keep up this formidable bulwark.

Though this work displays no great mechanical skill, yet the vastness of the design and the great amount of labor required for its completion, give us a high idea of the patience and perseverance of the Chinese nation. They have other works, which serve to strengthen this view of their character. And it is proper to observe that these are, generally, of a useful nature. Egypt reared mighty monuments, but they were mere displays of vain and superstitious pomp; while the public works of China are designed to benefit the country.

Next to the Great Wall, which we have just described, the Grand Canal deserves to be mentioned. This furnishes an uninterrupted water communication from Pekin to the Yang-tse-kiang—a distance of 500 miles. By its connection with rivers, this canal affords an inland navigation of 1000 miles, with only a short interruption. The labor and ingenuity displayed in this work are the greater, as the Chinese are unacquainted with locks and other means by which a stationary supply of water may be insured.

THE CYPRESS SWAMPS OF THE MISSISSIPPI.

IMMENSE swamps of Cypress constitute a vast portion of the inundated lands of the lower Mississippi and its tributaries. No prospect on earth can be more gloomy. Well may the cypress be esteemed a funereal tree. When the tree has shed its leaves, a cypress swamp, with its countless interlaced branches of a hoary gray, has an aspect of desolation and death. In summer, its fine, short and deep-green leaves invest these hoary branches with a drapery of crape. The water in which they grow is a vast deep level, two or three feet deep, still leaving the innumerable cypress "knees," as they are called, or very elliptical trunks, resembling circular bee-hives, throwing their point above the waters. This water is covered with a thick coat of green matter, resembling green buff velvet. The musquitoes swarm above the water in countless millions. A very

frequent adjunct to this horrible scenery is the moccasin snake, with its huge scaly body lying in folds upon the side of a cypress knee; and if you approach too near, lazy and reckless as he is, he throws the upper jaw of his huge mouth almost back to his neck, giving you ample warning of his ability and will to defend himself. I traveled (says Flint, from whom this sketch is derived) forty miles along a cypress swamp, and a considerable part of the way on the edge of it, in which the horse sunk at every step half way up to his knees. I was enveloped for the whole distance with a cloud of musquitoes. Like the ancient Avernus, I do not remember to have seen a single bird in the whole distance, except the blue-jay. Nothing interrupted the deathlike silence but the hum of musquitoes.

There cannot be well imagined another feature to the gloom of these vast and dismal forests, to finish this kind of landscape, more in keeping with the rest, than the long moss, or Spanish beard, and this funereal drapery attaches itself to the cypress in preference to any other tree. There is not that I know, an object in nature which produces such a number of sepulchral images as the view of the cypress forests; all shagged, dark, and enveloped in the festoons of moss. If you would inspire an inhabitant of New England, possessed of the customary portion of feeling, with the degree of homesickness that would strike to the heart, transfer him instantly from the hill and dale, the bracing air and varied scenery of the north to the cypress swamps of the south.

LEWIS WHETZEL, THE INDIAN HUNTER.

AMONG the earliest settlers in the region of Wheeling was a family of the name of Whetzel, the head of whom was of German origin. Although it was the hottest time of the Indian war, the old man was so rash as to build a cabin some distance from the fort, and moved his family into it. Dearly did he pay for his temerity.

His family consisted, beside himself and wife, of four sons—Martin, Lewis, Jacob and John,—respectively fifteen, thirteen, eleven and nine years of age. One day during the temporary absence of Martin, the oldest, and John, the youngest of the boys, the Indians made an attack upon the house, killed the old man, and carried off Lewis and Jacob captive. Mrs. Whetzel, in the confusion of the scene, escaped.

In the attack on their house, Lewis received a slight wound from a bullet, which carried away a small piece of the breast bone. The second night after the capture, the Indians encamped at the Biglick, twenty miles from the river, in what is now Ohio, and upon the waters of McMahon's Creek. The extreme youth of the boys induced the savages to neglect their usual precaution, of tying their prisoners at night. After the Indians had fallen asleep, Lewis whispered to his brother to get up, and they would make their way home. They started, and after going a few hundred yards, sat down on a log. "Well," said Lewis, "we can't go home barefooted. You stay

here, and I will go back and get a pair of moccasins for each of us." He did so, and returned. After sitting a little longer, he said; "Now, I will go back and get one of their guns, and we will then start." This was accordingly done. Young as they were, the boys were sufficiently expert with tracking paths in the woods to trace their course home, the moon enabling them, by her occasional glimpses, to find the trail which they had followed from the river. The Indians soon discovered their escape, and were heard by them hard on their heels. When the party in pursuit had almost overtaken them, they stepped aside in the bushes and let them pass, then fell into the rear and traveled on. On the return of their pursuers they did the same. They were then followed by two Indians on horseback, whom they evaded in the same manner. The next day they reached Wheeling in safety, crossing the river on a raft of their own making; Lewis, by this time, being nearly exhausted by his wound.

As the Whetzels grew up to be men—and the frontier boys, whenever large enough to handle a rifle, considered themselves as such—they took a solemn oath never to make peace with the Indians while they had strength to wield a tomahawk or sight to draw a bead. They esteemed revenge for the death of their father as the most precious and sacred portion of their inheritance.

Fully did they glut their vengeance. It was estimated that the four brothers, in the course of this long Indian war, took near one hundred scalps. War was the business of their lives. They would prowl through the Indian country singly, suffer all the fatigues of hasty marches in bad weather, or starvation, lying in close concealment, watching for a favorable opportunity to inflict death on the devoted victims who were so unfortunate as to come within their grasp. Notwithstanding their numberless exploits, they were no braggadocios. In truth, when they had killed an Indian they thought no more of it than a butcher would after killing a bullock. It was their trade.

Lewis Whetzel was perhaps the most indefatigable Indian hunter on the frontiers. During the wars, it is said that, disguised as an Indian, he killed in the region of the upper Ohio alone, 27 of the enemy, beside a number more on the Kentucky frontier. His person was in keeping with his character. He was about five feet nine inches in height, very broad shouldered and full breasted. His complexion was dark and swarthy as an Indian's, and his face pitted with the small pox. His hair, of which he was very careful, reached, when combed out, to the calves of his legs; his eyes were remarkably black, and, when excited—which was easily done—they would sparkle with such a vindictive glance as almost to curdle the blood of the beholder. He was a true friend, but a dangerous enemy. In mixed company, he was a man of few words, but, with his friends, a social and cheerful companion. Such was Lewis Whetzel, of whom we relate but a few anecdotes of his numberless adventures while pursuing his trade of blood.

About the year 1787, a party of Indians having committed some murders a few miles above Wheeling, some twenty men under Major M'Mahon, crossed the Ohio and followed their trail until they came to the Muskingum. The spies in advance then discovered the enemy to be vastly their superior; a council was called, and it was determined most prudent to retreat. Lewis Whetzel, who was present, took no part in the council, but, in the meanwhile, sat on a log with his rifle laid across his lap, and his tomahawk in his

hand. As the party set off on the retreat, Lewis stirred not from his seat. Major M'Mahon called to him, and inquired if he was going with them. Lewis answered, "that he was not; that he came out to hunt Indians; they were now found, and he was not going home like a fool with his finger in his mouth. He would take an Indian scalp or lose his own before he went home." All their arguments were without avail. His stubborn, unyielding disposition was such, that he never submitted himself to the control or advice of others; they were compelled to leave him, a solitary being in the midst of the thick forest, surrounded by vigilant enemies. Notwithstanding that this solitary individual appeared to rush into danger with the fury of a madman, yet in his disposition was displayed the cunning of a fox, as well as the boldness of the lion.

As soon as his friends had left him, he picked up his blanket, shouldered his rifle, and struck off into a different part of the country, in hope that fortune would place in his way some lone Indian. He kept aloof from the large streams, where large parties of the enemy generally encamped. He prowled through the woods with a noiseless tread and the keen glance of the eagle, that day, and the next until evening, when he discovered a smoke curling up among the bushes. He crept softly to the fire, and found two blankets and a small copper kettle in the camp. He instantly concluded that this was the camp of only two Indians, and that he could kill them both. He concealed himself in the thick brush, but in such a position that he could see the number and motions of the enemy. About sunset, one of the Indians came in, made up the fire, and went to cooking his supper. Shortly after, the other came in; they ate supper; after which they began to sing, and to amuse themselves by telling comic stories, at which they would burst into a roar of laughter. Singing and telling amusing stories, was the common practice of the white and red men when lying in their hunting camps. These poor fellows, when enjoying themselves in the utmost glee, little dreamed that the grim monster, Death, in the shape of Lewis Whetzel, was about stealing a march upon them. Lewis kept a keen watch on their maneuvers.

About nine or ten o'clock at night, one of the Indians wrapped his blanket around him, shouldered his rifle, took a chunk of fire in his hand, and left the camp, doubtless with the intention of going to watch a deer-lick. The fire and smoke would serve to keep off the gnats and musquitoes. It is a remarkable fact, that deer are not alarmed at seeing fire, from the circumstance of seeing it so frequently in the fall and winter seasons, when the leaves and grass are dry, and the woods on fire. The absence of the Indian was the cause of vexation and disappointment to our hero, whose trap was so happily set, that he considered his game secure. He still indulged the hope, that the Indian might return to camp before day. In this he was disappointed. There were birds in the woods who chirped and chattered just before break of day; and like the cock, gave notice to the woodsman that day would soon appear. Lewis heard the wooded songster begin to chatter, and determined to delay no longer the work of death for the return of the Indian. He walked to the camp with a noiseless step, and found his victim buried in profound sleep, laying upon his side. He drew his butcher-knife, and with all his force, impelled by revenge, he sent the blade through his heart. He said the Indian gave a short quiver, and a convulsive motion, and laid still in death's eternal sleep. He then scalped him, and set off

for home. He arrived at Mingo Bottom only one day after his unsuccessful companions.

One more of Lewis Whetzel's tragedies, and we are done. He set off alone (as was frequently his custom) on an Indian hunt. It was late in the fall of the year, when the Indians were generally scattered in small parties on their hunting-grounds. He proceeded somewhere on the waters of the Muskingum River, and found a camp where four Indians had fixed their quarters for a winter hunt. The Indians, unsuspicious of any enemies prowling about them so late in the season, were completely off their guard, keeping neither watch nor sentinels. Whetzel at first hesitated about the propriety of attacking such overwhelming numbers. After some reflection, he concluded to trust to his usual good fortune, and began to meditate upon his plan of attack. He concluded their first sleep would be the fittest time for him to commence the work of death. About midnight, he thought their senses would be the most profoundly wrapped in sleep. He determined to walk to the camp, with his rifle in one hand, and his tomahawk in the other. If any of them should happen to be awake, he could shoot one, and then run off in the darkness of the night, and make his escape; should they be all asleep, he would make the onset with his trusty scalping-knife and tomahawk. Now, reader, imagine that you see him gliding through the darkness, with the silent, noiseless motion of an unearthly demon, seeking mischief, and the keen glance of the fabled Argus, and then you can imagine to your mind Whetzel's silent and stealthy approach upon his sleeping enemies. On he went to the camp, the fire burning dimly, but affording sufficient light to distinguish the forms of his sleeping victims. With calm intrepidity he stood a moment, reflecting on the best plan to make the desperate assault. He set his rifle against a tree, determined to use only his knife and tomahawk; as these would not miss their aim, if properly handled with a well strung arm. What a thrilling, horrible sight! See him leaning forward, with cool self-possession, and eager vengeance, as if he had been the minister of death; he stands a moment, then wielding his tomahawk, with the first blow leaves one of them in death's eternal sleep. As quick as lightning, and with tremendous yells, he applies the tomahawk to the second Indian's head, and sent his soul to the land of spirits. As the third was rising, confounded and confused with the unexpected attack, at two blows he fell lifeless to the ground. The fourth darted off, naked as he was, to the woods. Whetzel pursued him some distance, but finally he made his escape.

COMETS.

COMETS are light, vapory bodies, which move round the sun in orbits much less circular than those of the planets. Their orbits, in other words, are very long ellipses or ovals, having the sun near one of the ends. Comets usually have two parts, a body or nucleus, and a tail; but some have a body only. The body appears as a thin, vapory,

luminous mass, of globular form; it is so thin that, in some cases, the stars have been seen through it. The tail is a lighter or thinner luminous vapor, surrounding the body, and streaming far out from it, in one direction. A vacant space has been observed between the body and the enveloping matter of the tail; and it is equally remarkable that the tail has in some instances appeared less bright along the middle, immediately behind the nucleus, as if it were a stream which that nucleus had in some measure parted into two.

In ignorant ages, the sudden appearance of a comet in the sky never failed to occasion great alarm, both on account of its threatening appearance, and because it was considered as a sign that war, pestilence, or famine, was about to afflict mankind. Knowledge has dispelled all such fancies; but yet we are not well acquainted with the nature of comets.

Out of the great number—certainly not less than one thousand—which are supposed to exist, about one hundred and fifty have been made the subject of scientific observation. Instead of revolving, like the planets, nearly on the plane of the sun's equator, it is found that they approach his body from all parts of surrounding space. At first, they are seen slowly advancing, with a comparatively faint appearance. As they approach the sun, the motion becomes quicker, and at length they pass round him with very great rapidity, and at a comparatively small distance from his body. The comet of 1680 approached within one-sixth of his diameter. After passing, they are seen to emerge from his rays, with an immense increase to their former brilliancy and to the length of their tails. Their motion then becomes gradually slower, and their brilliancy diminishes, and at length they are lost in distance. It has been ascertained that their movement round the sun is in accordance with the same law which regulates the planetary movements, being always the quicker the nearer to his body, and the slower the more distant. In the remote parts of space their motions must be extremely slow.

Three comets have been observed to return, and their periods of revolution have been calculated. The most remarkable of these is one usually denominated Halley's comet, from the astronomer who first calculated its period. It revolves round the sun in about seventy-five years, its last appearance being at the close of 1835. Another, called Enke's comet, from Professor Enke, of Berlin, has been found to revolve once in 1207 days, or three and one-third years; but, in this case, the revolving body is found, at each successive approach to the sun, to be a little earlier than on the previous occasion, showing that its orbit is gradually lessening, so that it may be expected ultimately to fall into the sun. This fact has suggested that some part of that space through which the comet passes, must be occupied by a matter presenting some resistance to the movement of any denser body; and it is supposed that this matter may prove to be the same which has been described as constituting the zodiacal light. It is called a *resisting medium;* and future observations upon it are expected to be attended with results of a most important nature, seeing that, if there be such a matter extending beyond the orbit of the earth, that planet, in whose welfare we are so much interested, will be exposed to the same ultimate fate with Enke's comet.

The third, named Beila's comet, from M. Beila of Josephstadt, revolves round the sun in six and three-quarter years. It is very small and has no

tail. In 1832, this comet passed through the earth's path about a month before the arrival of our planet at the same point. If the earth had been a month earlier at that point, or the comet a month later in crossing it, the two bodies would have been brought together, and the earth, in all probability, would have instantly become unfit for the existence of the human family. Comets are often affected in their motions by the attraction of the planets. Jupiter, in particular, has been described by an astronomer as a perpetual stumbling-block in their way. In 1770, a comet got entangled amidst the satellites of that planet, and was thereby thrown out of its usual course, while the motions of the satellites were not in the least affected.

Comets often pass unobserved, in consequence of the part of the heavens in which they move being then under daylight. During a total eclipse of the sun, which happened sixty years before Christ, a large comet, not formerly seen, became visible, near the body of the obscured luminary. On many occasions, their smallness and distance render them visible only by the aid of the telescope. On other occasions, they are of vast size. The comet now called Halley's, at its appearance in 1456, covered a sixth part of the visible extent of the heavens, and was likened to a Turkish scimitar. The comet of 1680, which was observed by Sir Isaac Newton, had a tail calculated to be 123,000,000 of miles in length, a space greater than the distance of the earth from the sun. There was a comet in 1744 which had six tails, spread out like a fan across a large space in the heavens. The tails of comets usually stretch in the direction opposite to the sun, both in advancing and retiring, and with a slight wave at the outer extremity, as if that part experienced some resistance.

GALILEO AND HIS DAUGHTER.

LITTLE more than two centuries since, on the 14th February, 1633, the astronomer, cited before the Inquisition, arrived at Rome, to answer the charge of heresy and blasphemy; while, a few years ago, in the brief but glorious day burst of Roman liberty, that very Inquisition was invaded by an exultant populace, and among its archives, full of memorials of martyred worth and heroic endurance, most eagerly, but in vain, was sought the record of the process against the great philosopher.

Galileo, on a former occasion, in reference to some of his scientific discoveries, had heard rumors of papal persecution, and as a cautious friend whispered to him the unpleasing tidings, he had exclaimed, "Never will I barter the freedom of my intellect to one as liable to err as myself!" The time quickly arrived to test his courage and his resolution.

For a little while, we are informed, he was allowed to remain secluded in the palace of his friend Nicolini. In a few months, however, he was

removed to an apartment in the Exchequer of the Inquisition, still being permitted the attendance of his own servant, and many indulgences of which they had not decided to deprive him. On the twenty-first of June, of the same year, he appeared before the Holy Office. Through its gloomy walls and passages he passed to the tribunal. There was little here, as in other ecclesiastical buildings of Rome, to captivate the senses. The dark walls were unadorned with the creations of art; state and ceremony were the gloomy ushers to the chambers of intolerance. In silence and in mystery commenced the preparations. The familiars of the office advanced to the astronomer, and arrayed him in the penitential garment; and as he approached, with a slow and measured step, the tribunal, cardinals and prelates noiselessly assembled, and a dark circle of officers closed in, while, as if conscious that the battle had commenced in earnest between mind and power, all the pomp and splendor of the hierarchy of Rome—that system which had hitherto possessed a sway unlimited over the fears and opinions of mankind—was summoned up to increase the solemnity and significance of the judgment about to be pronounced against him.

To the tedious succession of technical proceedings, mocking justice by their very assumption of formality, it would be needless to refer. Solemnly, however, and by an authority which it was fatal to resist, Galileo was called on to renounce a truth which his whole life time had been consecrated to reveal and to maintain, "The motion through space of the Earth and Planets round the Sun."

Then, immediately, assuming he had nothing to allege, would attempt no resistance and offer no defense, came the sentence of the tribunal, banning and anthematizing all who held the doctrine, that the sun is the center of the system, as holding a tenet "philosophically false, and formally heretical."

And then they sentenced the old and infirm philosopher—this band of infallibles!—they bade him abjure and detest the said errors and heresies. They decreed his book to the flames, and they condemned him for life to the dungeons of the Inquisition, bidding him recite, "once a week, seven penitential psalms for the good of his soul!"

Did Galileo yield? Did he renounce that theory now affording such ample proof of the beauty and order of the universe; to whose very laws Kepler, the friend and cotemporary of the philosopher, was even then, though unconsciously, bearing evidence, by his wonderful theorem of velocities and distances, a problem which Newton afterwards confirmed and illustrated?

Did Galileo yield? He did Broken by age and infirmity, importuned by friends more alarmed than himself, perhaps, at the terrors of that merciless tribunal, he signed his abjuration; yielded all his judges demanded; echoed their curse and ban, as their superstition or their hate required. There is a darker tale dimly hinted by those familiar with the technicalities of the Holy Office, that the terms, "Il rigoroso esame," during which Galileo is reported to have answered like a good Christian, officially announce the application of the torture.

Then occurred, perhaps scarcely an hour afterward, that remarkable episode in this man's history. As he rose from the ground on which, all kneeling, he had pronounced his abjuration, he gave a significant stamp, and whispered to a friend, "*E pur si muove!*" "Yet it does move"—

aye, and in spite of Inquisitions, has gone round—nay, the whole world of thought itself has moved, and having received an impulse from such minds, will revolve for ages in a glorious cycle for mankind! But the most touching incident of Galileo's story is yet to come.

After several years of confinement at Arcetri, the great astronomer was permitted to retire to Florence, upon the conditions that he should neither quit his house, nor receive the visits of his friends. They removed him from a prison to make a prison of his home. Alas! it was even worse than this.

Much as the greatest minds love fame, and struggle to obtain it, the proudest triumphs of genius and of science, the applause of the world itself, ever loud and obtrusive, is not to be compared to the low and gentle murmurs of pleasure and of pride from those we love. There was one being from whom Galileo had been accustomed to hear those consolations—his child, his gentle Maria Galilei. He had been otherwise a solitary indeed, and now more than ever so, when he was cut off from the communion of the greatest minds. To his lovely girl, his daughter, his heart clung with more than fondness. No wife of Pliny, perhaps, ever wafted to her husband with sweeter devotion the echoes of the applauding world without, greeting him she loved, than she did—his Maria Galilei. As he returned from prison, the way seemed tedious, the fleetest traveling all too slow, till he should once more fold her to his heart; and she, too, she anticipated meeting her father with a pleasure greater than ever before enjoyed, since he had now become a victim, sainted in her eyes, by the persecution he had suffered.

Short, indeed, was this happiness, if enjoyed at all. Within the month she died, and the home of Galileo was more than a prison—it was a desolate altar, on which the last and most precious of his household gods was shivered. And he died too, a few years afterward, that good old man!

But he had yielded—he was no martyr! Yes, indeed! But be it remembered, that if he possessed not the moral courage of a Huss, a Savonarola, or a Luther, he was not called to exercise it in so high a cause. The assertion and support of a religious truth is impressed with far deeper obligations than the advocacy of a scientific one, however well maintained by analogy, and confirmed by reason.

Still there was a deep devotional sentiment that pervaded the character of Galileo. Before he died, he became totally blind; yet he did not despair. Like Milton, he labored on for mankind—nay, pursued his scientific studies, invented mechanical substitutes for his loss of vision, to enable him still to pursue his arduous researches.

It is true he was shut out, like the elder Herschel, from the view of that glorious company, toward which his spirit had so often soared. Well might his friend Castelli say, in allusion to his infirmity, "that the noblest eyes were darkened which nature had ever made—eyes so privileged, and gifted with such rare qualities, that they might be said to have seen more than all those who had gone before him, and to have opened the eyes of all who were to come." Galileo himself bore noble tribute to his friend, when he exclaimed,

"Never, never will I cease to use the senses which God hath left me; and though this heaven, this earth, this universe, be henceforth shrunk for

me into the narrow space which I myself fill, so it please God, it shall content me."

The malice of his enemies long survived his death. The partisans of Rome disputed his right to make a will. They denied him a monument, for which large sums had been subscribed.

A hundred years afterward, when a splendid memorial was about to be erected to his memory, the President of the Florentine Academy descended into his grave, and desecrated his remains, by bearing off, as *relics for a museum*, the thumb of his right hand, and one of his vertebræ! So the victims of the religious fury of one age become the martyrs of science in another!

And what is the moral of what we have written concerning Galileo? Is there no teaching that may instruct our own times, especially when we see how, through scorn and persecution, and this world's contumely, and through the gloom and shadows of ignorance and fear, the form and substance of mighty Truth rises, slowly and dimly, perchance at first, but grandly and majestically ere long? Little more than two hundred years have passed since the death of Galileo, but ample justice has been done to his memory. His name will be a watchword through all time, to urge men forward in the great cause of moral and intellectual progress; and the Tree of Knowledge, whose fruits were once on earth, plucked, perhaps, ere they were matured, has shot up with its golden branches into the skies, over which have radiated the smiles of a beneficent Providence, to cheer man onward in the career of virtue and intelligence.

"There is something," as Dr. Channing observes, "in the spirit of the present age, greater than the age itself. It is, the appearance of a new power in the world, the multitude of minds now pressing forward, in the great task of the moral and intellectual regeneration of mankind." And this cause must ultimately triumph. The energies and discoveries of men like Galileo, remote as their history becomes, have an undying influence.

The power of a great mind is like the attraction of a sun. It appears in the infinite bounds of space, far, far away, as a grain among other gold dust at the feet of the Eternal, or, at most, but as a luminous spot; and yet we know that its influence controls, and is neccessary for, the order and arrangement of the nearest, as well as the remotest system. So in the moral and intellectual universe, from world to world, from star to star, the influence of one great mind extends, and we are drawn toward it by an unseen, but all-pervading affinity. Thus has the cause of moral and intellectual progress a sure guarantee of success. It has become a necessity, interwoven with the spirit of the age—a necessity impressed by every revelation of social evil, as well as proclaimed by every scientific discovery —gaining increased energy and power from the manifestation of every new wonder and mystery of nature—nay, from the building of every steam ship, the laying down of every new line of railway.

THE MAMMOTH CAVE, KENTUCKY.

THIS wonderful cavern, which is a world within itself, embracing in its submundane regions, seas, mountains, lakes and rivers, is situated in the interior of Kentucky, in a wild, broken region, but highly picturesque. It is approached through, as it were, a natural bower of trees, growing on either side of a beautiful and romantic dell. At the termination is the great portal to this nether world, and you descend into it by some winding stone steps; then, if you choose, you can penetrate miles into the heart of the earth. No impure air exists in any part of the cave; on the contrary, the air is delightful and exhilirating, and highly recommended for disease of the lungs. There are a number of small houses built within to accommodate consumptive persons, and numbers have resided there continually, finding great benefit. The temperature is uniformly the same—winter and summer being always 59 deg. Fahrenheit. Combustion is perfect in all parts, and decomposition is unobservable. Reptiles of no description have ever been seen within the cave. The loudest peal of thunder cannot be heard a quarter of a mile within, and the only sound heard is the roar of waterfalls, of which there are seven or eight.

The entire cave, as far as it is explored, (the end is not found yet,) contains two hundred or more avenues, nearly fifty domes, twenty-two pits, and three rivers. Many of the avenues contain large and magnificent stalagmite columns, extending from the floor to the ceiling, and some of very grotesque and fanciful shape. Graceful stalactites may likewise be seen pendant from the ceilings, as uniform and regular as if they were cut by the hand of man.

To the admirer of the wonderful and sublime, we say, go visit this the greatest of the Almighty's subterranean works! No description, however well written, can give the least idea of it. No other cave can be compared with it in extent and grandeur; in its serene and solemn majesty it stands alone.

Among the wonders of this cave is a species of fish without eyes, found in one of the rivers. A late traveler says, "What shall I say of this wonder of nature as a whole? I had heard and read descriptions of it, long since; but the half, the quarter, was not told. Its vastness, its lofty arches, its immense reach into the bosom of the solid earth, fill me with astonishment. It is—like Mount Blanc, Chimborazo, and the falls of Niagara—one of God's mightiest works. Shall I compare it with anything of a similar description which you have on the other side the Atlantic? with the Grotto of Neptune, or that of the Sibyl, at Tivoli, or any of Virgil's poetic Italian machinery? No comparison can be instituted. I speak, as you are aware, from personal knowledge. You, seated on the opposite bank of the Arno, have seen me clamber up, from the noisy waters below, to the entrance of the far-famed Grotto of Neptune, which I leisurely explored. In point of capaciousness, it has little more to boast of than the cellar of a large hotel, and, like that, was, as I think, excavated by human

hands. That of the Tiburtine Sibyl is still more limited in its dimensions. Indeed, every cavern which I have seen, if placed alongside of this, would dwindle into insignificance."

The same writer says, "I cannot refrain from giving you an account of an incident that happened in this cave last spring. A wedding party went to the cave to spend the honeymoon. While there, they went to visit those beautiful portions of the cave which lie beyond the river 'Jordan.' In order to do this, a person has to sail down the river nearly a mile before reaching the avenue which leads off from the river on the opposite side—for there is no shore or landing-place between the point above on this side, where you come to the river, and that below on the other; for the river fills the whole width of one avenue of the cave, and is several feet deep where the side walls descend into the water. This party had descended the river, visited the cave beyond, and had again embarked on the water for their return homewards. After they had ascended the river about half way, some of the party, who were in high glee, got into a romp and overturned the boat. Their lights were all extinguished, their matches wet, the boat filled with water and sunk immediately; and *there they were*, in 'the blackness of darkness,' up to their chins in water. No doubt, they would all have been lost, had it not been for the guide's great presence of mind. He charged them to remain perfectly still; for, if they moved a single step, they might get out of their depth in water; and swimming would not avail them, for they could not see where to swim to. He knew that, if they could bear the coldness of the water any length of time, they would be safe; for another guide would be sent from the cave house, to see what had become of them. And in this perilous condition, up to their mouths in water, in the midst of darkness 'more than night,' *four miles under ground*, they remained for upwards of five hours; at the end of which time another guide came to their relief. Matthew, or Mat, the guide who rescued them, told me that 'when he got to where they were, his fellow-guide, Stephen, (the Columbus of the cave,) was swimming round the rest of the party, cheering them, and directing his movements, while swimming, by the sound of their voices, which were raised, one and all, in prayer and supplication for deliverance!'"

PURCHASE OF LOUISIANA.

LOUISIANA was ceded to Spain in 1763, and by a secret article in the treaty of St. Ildefonso, concluded in 1800, that power ceded it back to France. Napoleon, however, wished to keep this cession secret until he should have—as he hoped to do—reduced St. Domingo to submission. Failing in this, he was rendered indifferent to his new acquisition. In January, 1803, he sent out Laussat as prefect of the colony, which was the first intimation that the inhabitants had of the transfer, which gave them great joy.

On being informed of this retrocession, President Jefferson had dispatched instructions to Robert Livingston, the American minister at Paris, to represent to the First Consul that the occupation of New Orleans by France would endanger the friendly relations between the two nations, and, perhaps, even oblige the United States to make common cause with England; as the possession of this city by the former, by giving her the command of the Mississippi, the only outlet to the produce of the Western States, and also of the Gulf of Mexico, so important to American commerce, would render it almost certain that the conflicting interests of the two nations would lead to an open rupture. Mr. Livingston was therefore instructed not only to insist upon the free navigation of the Mississippi, but to negotiate for the acquisition of New Orleans itself and the surrounding territory; and Mr. Monroe was appointed with full powers to assist him in the negotiation.

Bonaparte, who always acted promptly, soon came to the conclusion that what he could not defend, he had better dispose of on the best terms; but before deciding, he summoned two of his ministers in council, on the 10th of April, 1803, and thus addressed them:

"I am fully sensible of the value of Louisiana, and it was my wish to repair the error of the French diplomatists who abandoned it in 1763. I have scarcely recovered it before I run the risk of losing it; but if I am obliged to give it up, it shall hereafter cost more to those who force me to part with it than to those to whom I yield it. The English have despoiled France of all her northern possessions in America, and now they covet those of the South. I am determined that they shall not have the Mississippi. Although Louisiana is but a trifle compared to their vast possessions in other parts of the globe, yet, judging from the vexation they have manifested on seeing it return to the power of France, I am certain that their first object will be to gain possession of it. They will probably commence the war in that quarter. They have twenty vessels in the Gulf of Mexico, and our affairs in St. Domingo are daily getting worse since the death of Le Clerc. The conquest of Louisiana might be easily made, and I have not a moment to lose in putting it out of their reach. I am not sure but what they have already begun an attack upon it. Such a measure would be in accordance with their habits; and in their place I should not wait. I am inclined, in order to deprive them of all prospect of ever possessing it, to cede it to the United States. Indeed, I can hardly say that I cede it, for I do not yet possess it; and if I wait but a short time, my enemies may leave me nothing but an empty title to grant to the Republic I wish to conciliate. They only ask for one city of Louisiana, but I consider the whole colony as lost; and I believe that in the hands of this rising power it will be more useful to the political, and even the commercial interests of France, than if I should attempt to retain it. Let me have both your opinions on the subject."

One of the ministers, Barbe Marbois, fully approved of the cession, but the other opposed it. They debated the matter for a long time, and Bonaparte concluded the conference without making his determination known. The next day, however, he sent for Marbois, and said to him:

"The season for deliberation is over: I have determined to renounce Louisiana. I shall give up not only New Orleans, but the whole colony, without reservation. That I do not undervalue Louisiana I have sufficiently proved, as the object of my first treaty with Spain was to recover it. But, though I regret parting with it, I am convinced it would be folly to persist

in trying to keep it. I commission you, therefore, to negotiate this affair with the envoys of the United States. Do not wait the arrival of Mr. Monroe, but go this very day and confer with Mr. Livingston. Remember, however, that I need ample funds for carrying on the war, and I do not wish to commence it by levying new taxes. For the last century France and Spain have incurred great expense in the improvement of Louisiana, for which her trade has never indemnified them. Large sums have been advanced to different companies, which have never returned to the treasury. It is fair that I should require repayment for these. Were I to regulate my demands by the importance of this territory to the United States, they would be unbounded; but, being obliged to part with it, I shall be moderate in my terms. Still, remember, I must have fifty millions of francs, and I will not consent to take less. I would rather make some desperate effort to preserve this fine country."

The negotiations commenced that very day. Mr. Monroe arrived at Paris on the 12th of April, and the two representatives of the United States, after holding a private conference, announced that they were ready to treat for the cession of the entire territory, which at first Mr. Livingston had hesitated to do, believing the proposal of the First Consul to be only a device to gain time.

On the 30th of April, 1803, the treaty was signed. The United States were to pay fifteen million dollars for their new acquisition, and be indemnified for some illegal captures; while it was agreed that the vessels and merchandise of France and Spain should be admitted into all the ports of Louisiana free of duty for twelve years.

Bonaparte stipulated in favor of Louisiana that it should as soon as possible be incorporated into the Union, and that its inhabitants should enjoy the same rights, privileges, and immunities as other citizens of the United States; and the third article of the treaty, securing to them these benefits, was drawn up by the First Consul himself, who presented it to the plenipotentiaries with these words:

"Make it known to the people of Louisiana that we regret to part with them; that we have stipulated for all the advantages they could desire; and that France, in giving them up, has ensured to them the greatest of all. They could never have prospered under any European government as they will when they become independent. But, while they enjoy the privileges of liberty, let them ever remember that they are French, and preserve for their mother country that affection which a common origin inspires."

The completion of this important transaction gave equal satisfaction to both parties. "I consider," said Livingston, "that from this day the United States takes rank with the first powers of Europe, and now she has entirely escaped from the power of England;" and Bonaparte expressed a similar sentiment in these words: "By this cession of territory I have secured the power of the United States, and given to England a maritime rival, who at some future time will humble her pride." These words appeared prophetic when the troops of Britain, a few years after, met so signal an overthrow on the plains of Louisiana.

The boundaries of the colony had never been clearly defined, and one of Bonaparte's ministers drew his attention to this obscurity. "No matter," said he, "if there was no uncertainty, it would, perhaps, be good policy to leave some;" and, in fact, the Americans interpreting to their own advan-

tage this uncertainty, some few years after seized upon the extensive territory of Baton Rouge, which was in dispute between them and the Spaniards.

On the 30th of November, 1803, Laussat took possession of the country, when Casa Calvo and Salcedo, the Spanish commissioners, presented to him the keys of the city, over which the tri-colored flag floated but for the short space of twenty days. The colony had been under the rule of Spain for a little more than thirty-four years.

On the 20th of December, in the same year, General Wilkinson and Clariborne, who were jointly commissioned to take possession of the country for the United States, made their entry into New Orleans at the head of the American troops. Laussat gave up his command, and the star-spangled banner supplanted the tri-colored flag of France.

The purchase of Louisiana, which gave the United States their sole claim to the vast territory west of the Mississippi, extending on the north through Oregon to the Pacific, and further south to the Mexican dominions, was the most important event to the Nation which has occured in this century. From that moment, the interests of the whole people of the Mississippi valley became as one, and its vast natural resources began to be rapidly developed. So great are they, that it is destined to become the center of American power—"*the mistress of the world.*"

FALLS OF NIAGARA.

CATARACTS or Falls are formed by the descent of rivers over rocks, from a higher to a lower level. That of Niagara is not the highest in the world, but it is remarkable for forcing over, in its mighty current, a larger body of water than any other. The highest waterfall of Europe is that of Gavarnie in France, which is 1,350 feet; the highest in Asia is that of Garispa, in Hindostan, 1,000 feet; the highest in America is that of Tequendama, in New Grenada, 580 feet. The Falls of Niagara are but about 170 feet in height; but the immense body of water that rushes, in an almost undivided mass, down this distance, produces upon the beholder the most intense wonder, and furnishes one of the most sublime objects to be found in the world.

Such is the mighty scale on which this cataract is constructed, that a person does not at first sight feel its full grandeur; but, by degrees, it seems to increase in size; its awful front appears to rise higher, its prodigious volume to expand, and its whole aspect to assume a more fearful and sublime physiognomy.

One characteristic of this great natural wonder is its steadiness. It flows on, and on, with a ceaseless, patient, unvarying tide. It pauses not to take breath; it goes on, during the still watches of the night; it is at work at sunrise and at sunset. It does not shrink or wax faint in the drought of summer, nor does the freshet of spring disturb its equable yet

sublime current. The chains of winter cannot bind it; it pauses not amid the pealing thunder or the raging of the equinoctial tempest; it heeds not the presence or absence of man; it takes no note of time, save that it

"Notches its centuries in the eternal rocks!"

Emblem of God and eternity, it rolls on, speaking only of Him who made it. Nor is sublimity the only characteristic of this greatest of waterfalls. There are traits of beauty, which seem even to heighten the effect of its grandeur. The rainbow, ever playing in sunshine over its awful front, and seeming indifferent to the boiling whirlpool beneath; the tide of many-colored gems into which the spray often seems converted, as it plunges over the rocks; the heaps of foam, white as wool, dancing on the billows that rush away from the foot of the fall; and more than all, an aspect of tranquillity, of repose, which settles upon the whole scene, when viewed at a little distance, are all incidents which blend in the majestic picture imprinted on the memory by this stupendous yet lovely work of nature's God.

The Falls of Niagara have been the frequent theme of poetry, but the following lines by Brainard are deemed the finest that have been produced upon the subject:

"The thoughts are strange that crowd into my brain,
While I look upward to thee. It would seem
As if God poured thee from his 'hollow hand,'
And hung his bow upon thine awful front;
And spoke in that loud voice which seemed to him
Who dwelt in Patmos for his Saviour's sake,
'The sound of many waters;' and had bade
Thy flood to chronicle the ages back,
And notch his centuries in the eternal rocks!

"Deep calleth unto deep, and what are we,
That hear the question of that voice sublime?
O! what are all the notes that ever rung
From war's vain trumpet, by thy thundering side!
Yea, what is all the riot man can make
In his short life, to thy unceasing roar!
And yet, bold babbler, what art thou to Him,
Who drowned a world, and heaped the waters far
Above its loftiest mountains?—a light wave,
That breaks, and whispers of its Maker's might!"

BURR'S CONSPIRACY.

IN 1805, Aaron Burr first made his appearance in the West. With a conscience racked with remorse for the murder of Hamilton in a duel, and politically disgraced by his quarrel with President Jefferson, he sought the West to bury his anguish and disgrace in active schemes of unhallowed ambition. At this time, the affairs of the United States with Spain, were in an embarrassing state. In the spring of 1806, their forces advanced to the Sabine, and Gen. Wilkinson, commander of the United States troops in Louisiana, had orders to repel them if they should cross the river. At this time, Burr again appeared in the West, passing most of his

time at Blannerhasset's Island, but being seen in Kentucky and Tennessee His plans appear to have been threefold:—

First.—To ascertain the sentiments of the people of the West upon the subject of a separation from the Atlantic States, and, if favorable, to have attempted to erect a separate republic in the West, of which he was to be the head, and New Orleans the capital.

Secondly.—To raise a force and make arrangements for a private expedition against Mexico and the Spanish provinces, in the event of a war between the United States and Spain, which, at that time, seemed inevitable.

Thirdly.—In the event of the failure of both of these measures, to purchase a tract of land of Baron Bastrop, lying on the Washita River, in Louisiana, upon which he contemplated the establishment of a colony of wealthy and intelligent individuals, where he might rear around him a society remarkable for its elegance and refinement.

The unsettled relations with Spain presented a specious cloak to his enterprise in that quarter, and enabled him to give to each person addressed, such representations of his plans as best suited their character. To the daring youth of the West, desirous of military adventure, he could represent it as an expedition against a nation with whom the United States would shortly be at war,—that government would *connive* at it, but could not openly countenance it until hostilities actually commenced. There is but little doubt, but that many concurred in the enterprise without being aware of its treasonable character, while to others, all his schemes were exposed in their full deformity.

In the prosecution of his object, he applied himself with all his great powers of address, to any one who would be useful to him in his schemes. Among a large number of persons whom he enlisted, was Herman Blannerhasset, an Irish gentleman of wealth, residing on a beautiful island on the Ohio, twelve miles below Marietta. He molded him to his purpose, and obtained a complete command of his ample fortune.

The scheme of separation from the Atlantic States had been too much agitated in Kentucky, not to have left some materials for Burr to rally upon, and he neglected no opportunity to work upon the fragments of the old party. Not only in that State, but in every State and Territory in the West, from western Pennsylvania down to Louisiana, he gained a large number of adherents to the cause, among whom were some of the leading men of the country.

During the summer of 1806, the public mind in the West became agitated by rumors of secret expeditions and conspiracies, in which Burr and others were implicated, but all were wrapped in mystery and doubt. In the following November, Burr was seized at Lexington, Kentucky, and arraigned before the United States Court, to answer to a charge of high misdemeanor, in organizing a military expedition against a power with whom the United States were at peace. He was defended by the Hon. Henry Clay, on his first assuring him upon *his honor*, that he was engaged in no design contrary to the laws and peace of the country. The arrest was premature, and owing to the absence of important witnesses, he was acquitted. Yet, at that very time, an armed force in his service, occupied Blannerhasset's Island, and a large number of boats had been built on the Muskingum, and were then at Marietta, laden with provisions and military stores.

All danger of collision with Spain, had, ere this, been removed; but

Burr, notwithstanding, adhered to his original design. President Jefferson, who had been fully kept advised by Gen. Wilkinson of Burr's movements, on the 25th of November, issued a proclamation denouncing the enterprise, and warning the West against it. This proclamation reached Ohio about the 1st of December, and soon after, by the orders of the governor of that State, the boats of Burr on the Muskingum, were seized. At the same time, the Virginia militia, of Wood County, lying opposite Blannerhasset's Island, took possession of the mansion of Blannerhasset. The owner, however, succeeded in effecting his escape down the Ohio, in one of his boats. Burr, in the meanwhile, had gone to Nashville; but before the proclamation had reached Tennessee, had descended the Cumberland, with two boats laden with provisions and a few adherents. At the mouth of that river, his forces congregated, and from thence they proceeded down the Mississippi, in a flotilla of eleven boats.

His adherents at this time had dwindled to but a comparatively small number. A part of his original confederates had been engaged simply as settlers of Bastrop's lands, but the greater number were engaged under the express assurance, that the projected enterprise was against Mexico, and secretly authorized by government. Many expressly enlisted in the name of the United States. The proclamation, as it reached the different parts of the West, undeceived both of these classes, and, of course, drew them off from any participation in the enterprise.

The West had now become thoroughly aroused to the true nature of the conspiracy. The authorities of the different States and Territories on the Ohio and Mississippi, had ordered out the Militia for the apprehension of the parties; and from Pittsburgh to the Gulf, the most rigid measures had been adopted, to give an effectual check to the further progress of the expedition.

Gen. Wilkinson, who commanded the United States forces in the West, had been Burr's confidant in his schemes. Burr and his principal confederates, carried on a continual correspondence with that officer in cypher, during the formation and execution of his plans. What Wilkinson's original intentions were, is a matter of conjecture; but it is certain that he acted treacherously toward Burr, as during this time, he informed Jefferson of all the movements of the conspirators, and became, at length, the most active person in arresting those who were supposed to have been connected with it. It is probable, that he first favored Burr from ambitious motives, determining to be governed by circumstances in his ulterior movements. If war should occur with Spain, then, as a military man, there would be an opportunity, in connection with Burr, to win distinction in a campaign against Mexico; but if not, there was a chance of his gaining eclat by exposing a conspiracy dangerous to the welfare of his country.

Confident of the aid of Wilkinson, and of the forces under his command, Burr continued his exertions, notwithstanding all prospects of a war with Spain had ceased, and in spite of the proclamation of the President, and the efforts of the Governors of the various States and Territories of the West, to deter him.

In January (1807), the flotilla of Burr had arrived at Bayou Pierre, on the Lower Mississippi. He was there seized by the order of Cowles Mead, the acting Governor of Mississippi, and conducted to the town of Washington. Burr, shortly after, managed to escape from custody, and a reward of

two thousand dollars was offered for his apprehension. In the meantime, several arrests of the supposed accomplices of Burr, were made at Fort Adams and New Orleans. Among these, were Bollman (the celebrated deliverer of Lafayette,) Ogden, Swartwout, Dayton, Smith, Alexander and Gen. Adair, against whom the most rigid and unjustifiable authority was exercised by Gen. Wilkinson, in many cases upon bare suspicion.

Late at night, about the 1st of February, a man in the garb of a boatman, with a single companion, arrived at the door of a small log tavern, in the backwoods of Alabama, and inquired the way to a Col. Hinson's, who resided in the neighborhood. Col. Nicholas Perkins observed by the light of the fire, that the stranger, although coarsely dressed, possessed a countenance of unusual intelligence, and an eye of sparkling brilliancy. The tidy boot, which his vanity could not surrender with his other articles of finer clothing, attracted Perkins' attention, and led him truly to conclude, that the mysterious stranger was none other than the famous Col. Burr, described in the proclamation of the Governor.

That night Perkins started for Fort Stoddart, on the Tombigbee, and communicated his suspicions to the late Gen. Edmund P. Gaines, then the lieutenant in command. The next day, accompanied by Perkins and a file of mounted soldiers, Gaines started in pursuit of Burr, and arrested him on his journey. Burr attempted to intimidate Gaines; but the resolute young officer was firm, and told him he must accompany him to his quarters, where he would be treated with all the respect due the ex-Vice President of the United States.

About three weeks after, Gaines sent Burr a prisoner to Richmond, with a sufficient guard, the command of which was given to Perkins. They were all men whom Perkins had selected, and upon whom he could rely in every emergency. He took them aside, and obtained the most solemn pledges, that upon the whole route they would hold no interviews with Burr, nor suffer him to escape alive. Perkins knew the fascinations of Burr, and he feared his familiarity with his men,—indeed, he feared the same influences upon himself.

Each man carried provisions for himself, and some for the prisoner. They were all well mounted and armed. On the last of February, they set out on their long and perilous journey. To what an extremity was Burr now reduced! In the boundless wilds of Alabama, with none to hold converse; surrounded by a guard to whom he dared not speak; a prisoner of the United States, for whose liberties he had fought; his fortune swept away; the magnificent scheme for the conquest of Mexico broken up; slandered and hunted down from one end of the Union to another. These were considerations to crush an ordinary man; but his was no common mind; and the characteristic fortitude and determination which had ever marked his course, still sustained him in the darkest hour.

In their journey through Alabama, they always slept in the woods, and after a hastily prepared breakfast, it was their custom to again remount and march on in gloomy silence. Burr was a splendid rider, and in his rough garb, he bestrode his horse as elegantly, and his large dark eyes flashed as brightly, as though he were at the head of his New York regiment. He was always a hardy traveler, and though wet for hours together, with cold and drizzling rains, riding forty miles a day, and at night stretched on a pallet upon the ground, he never uttered one word of complaint.

A few miles beyond Fort Wilkinson, they were, for the first time, sheltered under a roof,—a tavern kept by one Bevin. While they were seated around the fire awaiting breakfast, the inquisitive host inquired "if *the traitor* Burr had been taken?" "Was he not a bad man?" "Wasn't every body afraid of him?" Perkins and his party were very much annoyed, and made no reply. Burr was sitting in the corner by the fire, with his head down; and after listening to the inquisitiveness of Bevin until he could endure it no longer, he raised himself up, and planting his fiery eyes upon him, said:—

"*I am Aaron Burr; what is it you want with me?*"

Bevin, struck with his appearance,—the keenness of his look, and the solemnity and dignity of his manner, stood aghast, and trembled like a leaf. He uttered not another word while the guard remained at his house.

When they reached the confines of South Carolina, Perkins watched Burr more closely than ever, for his son-in-law, Colonel, afterward Governor Alston, a gentleman of talents and influence, resided in this State. He was obliged, in a great measure, to avoid the towns, for fear of a rescue. Before entering the town of Chester, in that State, the party halted, and surrounding Burr, proceeded on, and passed near a tavern where many persons were standing; while music and dancing were heard in the house. Burr conceived it a favorable opportunity for escape, and suddenly dismounting, exclaimed:

"I am Aaron Burr, under military arrest, and claim protection from the civil authorities!"

Perkins leaped from his horse, with several of his men, and ordered him to remount.

"*I will not!*" replied Burr.

Not wishing to shoot him, Perkins threw down his pistols, and being a man of prodigious strength, and the prisoner a small man, seized him around the waist, and placed him in the saddle, as though he were a child. Thomas Malone, one of the guard, caught the reins of the bridle, slipped them over the horse's head, and led him rapidly on. The astonished citizens, when Burr dismounted, and the guards cocked their pistols, ran within the piazza to escape from danger.

Burr was still, to some extent, popular in South Carolina; and any wavering or timidity on the part of Perkins, would have lost him his prisoner; but the celerity of his movements gave the people no time to reflect, before he was far in the outskirts of the village. Here the guard halted. Burr was highly excited; he was in tears! The kind-hearted Malone also wept, at seeing the uncontrollable despondency of him who had, hitherto, proved almost iron-heared. It was the first time any one had ever seen Aaron Burr unmanned.

On Burr's arrival at Richmond, the ladies of the city vied with each other in contributing to his comfort. Some sent him fruit, some clothes, some one thing, some another.

Burr was tried before the Supreme Court of the United States, at Richmond, for treason, and found not guilty, though the popular voice continued to regard him as a traitor. Failing to convict the principal, the numerous confederates of Burr were never brought to trial, and were discharged from custody.

After his trial, Burr went abroad, virtually a banished man. He was still

full of his schemes against Mexico, and, unsuccessfully, attempted to enlist England, and then France, in these projects. Here his funds failed. He had no friends to apply to, and was forced to borrow, on one occasion, a couple of sous from a cigar woman, on the corner of the street.

At last, he returned to New York, but in how different a guise from the days of his glory! No cannon thundered at his coming; no crowd thronged along the quay. Men gazed suspiciously upon him, as he walked along, or crossed the street to avoid him, as one having the pestilence. But he was not, he thought, wholly destitute. His daughter, who devotedly clung to him through all his trials, still lived; his heart yearned to clasp her to his bosom. She left Charleston, South Carolina, accordingly, to meet him. But although more than thirty years have elapsed, no tidings of the pilot boat, on which she sailed, have ever been received. Weeks grew into months, and months glided into years, but her father and husband watched in vain for her coming. Whether the vessel perished by conflagration—whether it foundered in a gale, or whether it was taken by pirates, and all on board murdered, will never be known until the great day, when the sea shall give up its dead.

It is said that this blow broke the heart of Burr, and that though in public he maintained a proud equanimity, in private, tears forced themselves down his furrowed cheeks. He lived thirty years after this event; but in his own words, "felt severed from the human race." He had neither brother nor sister, nor lineal descendant. No man ever called him by the endearing name of friend. The weight of fourscore years was on his brow. He was racked by disease. At last death, so long desired, came, but, it is said, in a miserable lodging and alone. Was there ever such a retribution?

Scarcely less melancholy was the fate of his principal victim, Herman Blannerhasset. This gentleman was born in England, of Irish parents, in 1767, and was educated for the bar. He married Miss Adeline Agnew, a grand-daughter of the Gen. Agnew, who was with Wolfe at Quebec. She was a lady of fine accomplishments, of great personal beauty, and fully merited the celebrated encomium of Wirt. Strongly imbued with republican principles, Blannerhasset emigrated to the United States, and commenced improvements about the year 1798, upon the beautiful island which bears his name, where he reared a mansion which became the abode of elegant hospitality. He was a fine scholar, and refined in taste and manners. Possessing an ample fortune, a beautiful and accomplished wife, and children just budding into life, he seemed surrounded with everything which can make existence desirable and happy.

In 1805, Aaron Burr, sailing down the Ohio, landed, uninvited, on the island, where he was received with frank hospitality. He again visited the island, and enticed Blannerhasset into his plans. When the Virginia militia took possession of the island, in 1806, the mob spirit ran riot, and great injury was done to the grounds, and the dwelling, and its furniture. In 1811, the work of devastation was completed by a fire, which destroyed the mansion.

At the time of the trial of Burr, Blannerhasset was arrested, and placed in the penitentiary at Richmond. When he was set at liberty, he was nearly ruined in fortune by the advances he had made to Burr. He then settled on a cotton plantation in Mississippi, and there was a prospect of his being enabled to regain his lost fortune; but the war of 1812 broke out, and cotton

falling to a merely nominal price, and his numerous creditors pressing upon him, he was about to despair, when an old friend, the acting governor of Canada, hearing of his critical situation, offered him a judgeship in one of the provincial courts. He accordingly emigrated to Canada, but upon arriving there found that the capriciousness of the British ministry had removed his friend from office. He was now hopelessly cast upon the world, at an advanced age, without health and energy, and almost entirely destitute. As a last resort, he sailed for Europe to prosecute a reversionary claim, still existing, in Ireland, regarded by him with indifference in the days of his affluence.

Through the influence of friends also, he hoped to obtain an office under the English government, by which he might more readily obtain the means of conducting his suit. He applied for an office to Lord Anglesey, but he coldly repelled the solicitations of his old schoolmate. His plans all frustrated, he moved to the island of Guernsey, where, in 1831, wearied with the turmoil of life, he sank to his eternal rest, in the 63d year of his age. His faithful wife returned to the United States to procure indemnity from Congress for spoliations upon their property by the militia. But before the claim could be considered, she died in abject poverty, in an humble abode in the city of New York. In her last hours, she was surrounded by strangers, and the recipient of their charity; and her remains were escorted to their final resting-place, by some humble Irish females.

AN AERIAL VOYAGE.

OF all the wonderful discoveries to which modern science has given birth, there is perhaps not one which has been applied to useful purposes on a scale so unexpectedly contracted as that by which we are enabled to penetrate into the immense ocean of air with which our globe is surrounded, and to examine the physical phenomena which are manifested in its upper strata. One would have supposed that the moment the power was conferred on us to leave the surface of the earth, and rise above the clouds into the superior regions, a thousand eager inquirers would present themselves as agents in researches in a region so completely untrodden, if such a term may here be permitted.

Nevertheless, this great invention of aerial navigation has remained almost barren. If we except the celebrated aerial voyage of Gay-Lussac in 1804, the balloon, with its wonderful powers, has been allowed to degenerate into a mere theatrical exhibition, exciting the vacant and unreflecting wonder of the multitude. Instead of being an instrument of philosophical research, it has become a mere expedient for profit in the hands of charlatans, so much so, that on the occasion to which we are now about to advert, the persons who engaged in the project incurred failure, and risked their lives, from their aversion to avail themselves of the experience of those who had made aerostation a mere spectacle for profit. They thought that

to touch pitch they must be defiled, and preferred danger and the risk of failure to such association.

It is now about two years since M. Barral, a chemist of some distinction at Paris, and M. Bixio a member of the Legislative Assembly, resolved upon making a grand experiment with a view to observe and record the meteorological phenomena of the strata of the atmosphere, at a greater height and with more precision than had hitherto been accomplished. But, from the motives which we have explained, the project was kept secret, and it was resolved that the experiment should be made at an hour of the morning, and under circumstances, which would prevent it from degenerating into an exhibition. MM. Arago and Regnault undertook to supply the aerial voyagers with a programme of the proposed performance, and instruments suited to the projected observations. M. Arago prepared the programme, in which was stated clearly what observations were to be made at every stage of the ascensional movement.

It was intended that the balloon should be so managed as to come to rest at certain altitudes, when barometric, thermometric, hygrometric, polariscopic, and other observations, were to be taken and noted; the balloon after each series of observations to make a new ascent.

The precious instruments by which these observations were to be made were prepared, and in some cases actually fabricated and graduated, by the hands of M. Regnault himself.

To provide the balloon and its appendages, recourse was had to some of those persons who have followed the fabrication of balloons as a sort of trade, for the purposes of exhibition.

In this part of their enterprise the voyagers were not so fortunate, as we shall presently see, and still less so in having taken the resolution to ascend alone, unaccompanied by a practiced aeronaut. It is probable that if they had selected a person, such as Mr. Green, for example, who had already made frequent ascents for the mere purpose of exhibition, and who had become familiar with the practical management of the machine, a much more favorable result would have ensued. As it was, the two voyagers ascended for the first time, and placed themselves in a position like that of a natural philosopher, who, without previous practice, should undertake to drive a locomotive, with its train, on a railway, at fifty miles an hour, rejecting the humble but indispensable aid of an experienced engine-driver.

The necessary preparations having been made, and the programme and the instruments prepared, it was resolved to make the ascent from the garden behind the Observatory at Paris, a plateau of some elevation, and free from buildings and other obstacles, at day break of Saturday, the 29th of June. At midnight the balloon was brought to the spot, but the inflation was not completed until nearly 10 o'clock, A. M.

It has since been proved that the balloon was old and worn, and that it ought not to have been supplied for such an occasion.

It was obviously patched, and it is now known that two seamstresses were employed during the preceding day in mending it, and some stitching even was found necessary after it had arrived at the Observatory.

The net-work which included and supported the car was new, and not originally made with a view to the balloon it inclosed, the consequences of which will be presently seen.

The night between Friday and Saturday, was one of continual rain, and the balloon and its netting became thoroughly saturated with moisture. By the time the inflation had been completed, it became evident that the net-work was too small; but in the anxiety to carry into effect the project, the consequences of this were most unaccountably overlooked. We say unaccountably, because it is extremely difficult to conceive how experimental philosophers and practiced observers, like MM. Arago and Regnault, to say nothing of numerous subordinate scientific agents who were present, did not anticipate what must have ensued in the upper regions of the air. Nevertheless, such was the fact.

On the morning of Saturday, the instruments being duly deposited in the car, the two enterprising voyagers placed themselves in it, and the balloon, which previously had been held down by the strength of twenty men, was liberated, and left to plunge into the ocean of air, at twenty-seven minutes after ten o'clock.

The weather, as we have already stated, was unfavorable, the sky being charged with clouds. As it was the purpose of this project to examine much higher regions of the atmosphere than those which it had been customary for aeronautic exhibitors to rise to, the arrangements of ballast and inflation which were adopted, were such as to cause the ascent to be infinitely more rapid than in the case of public exhibitions; in short, the balloon darted upward with the speed of an arrow, and in two minutes from the moment it was liberated, that is to say, at twenty-nine minutes past ten, plunged into the clouds, and was withdrawn from the anxious view of the distinguished persons assembled in the garden of the Observatory.

While passing through this dense cloud, the voyagers carefully observed the barometer, and knew by the rapid fall of the mercury that they were ascending with a great velocity. Fifteen minutes elapsed before they emerged from the cloud; when they did so, however, a glorious spectacle presented itself. The balloon, emerging from the superior surface of the cloud, rose under a splendid canopy of azure, and shone with the rays of a brilliant sun. The cloud which they had just passed, was soon seen several thousand feet below them. From the observations taken with the barometer and thermometer, it was afterward found that the thickness of the cloud through which they had passed, was 9,800 feet—a little less than two miles. On emerging from the cloud, our observers examined the barometer, and found that the mercury had fallen to the height of 18 inches; the thermometer showed a temperature of 45 degrees Fahr. The height of the balloon above the level of the sea was then 14,200 feet. At the moment of emerging from the cloud, M. Barral made polariscopic observation, which established a fact foreseen by M. Arago, that the light reflected from the surface of the clouds, was unpolarized light.

The continued and somewhat considerable fall of the barometer informed the observers that their ascent still continued to be rapid. The rain which had previously fallen, and which wetted the balloon, and saturated the cordage forming the net-work, had now ceased, or, to speak more correctly, the balloon had passed above the region in which the rain prevailed. The strong action of the sun, and almost complete dryness of the air in which the vast machine now floated, caused the evaporation of the moisture which enveloped it. The cordage and balloon becoming dry, and thus relieved of a certain weight of liquid, was affected as though a quantity of

ballast had been thrown out, and it darted upward with increased velocity. It was within one minute of eleven, when the observers finding the barometer cease the upward motion, and finding that the machine oscillated round a position of equilibrium, by noticing the bearing of the sun, they found the epoch favorable for another series of observations. The barometer there indicated that the balloon had attained the enormous height of 19,700 feet. The moisture which had invested the thermometer had frozen upon it, and obstructed, for the moment, observations with it. It was while M. Barral was occupied in wiping the icicles from it, that, turning his eye upward, he beheld what would have been sufficient to have made the stoutest heart quail with fear.

To explain the catastrophe which at this moment, and at nearly 20,000 feet above the surface of the earth, and about a mile above the highest strata of the clouds, menaced the voyagers, we must recur to what we have already stated in reference to the balloon and the net-work. As it was intended to ascend to an unusual altitude, it was of course known, that in consequence of the highly rarefied state of the atmosphere, and its very much diminished pressure, the gas contained in the balloon would have a great tendency to distend, and consequently space must be allowed for the play of this effect. The balloon, therefore, at starting, was not nearly filled with gas, and yet, as we have explained it, very nearly filled the net-work which inclosed it. Is it not strange that some among the scientific men present did not foresee, that when it would ascend into a highly rarefied atmosphere, it would necessarily distend itself to such a magnitude, that the netting would be utterly insufficient to contain it? Such effect, so strangely unforeseen, now disclosed itself practically realized to the astonished and terrified eyes of M. Barral.

The balloon, in fact, had so swelled as not only completely to fill the netting which covered it, but to force its way, in a frightful manner, through the hoop under it, from which the car and the voyagers were suspended.

In short, the inflated silk protruding downward through the hoop, now nearly touched the heads of the voyagers. In this emergency the remedy was sufficiently obvious.

The valve must be opened, and the balloon breathed, so as to relieve it from the over-inflation. Now, it is well known, that the valve in this machine is placed in a sort of sleeve, of a length more or less considerable, connected with the lower part of the balloon, through which sleeve the string of the valve passes. M. Barral, on looking for this sleeve, found that it had disappeared. Further search showed that the balloon being awkwardly and improperly placed in the inclosing net-work, the valve-sleeve, instead of hanging clear of the hoop, had been gathered up in the net-work above the hoop; so that, to reach it, it would have been necessary to have forced a passage between the inflated silk and the hoop.

Now, here it must be observed, that such an incident could never have happened to the most commonly-practiced balloon exhibitor, whose first measure, before leaving the ground, would be to secure access to, and the play of the valve. This, however, was, in the present case, fatally overlooked. It was, in fine, now quite apparent, that one of two effects must speedily ensue—viz: either the car and the voyagers would be buried in the inflated silk which was descending upon them, and thus they would be

suffocated, or that the force of distention must burst the balloon. If a rupture were to take place in that part immediately over the car, then the voyagers would be suffocated by an atmosphere of hydrogen; if it should take place in a superior part, then the balloon, rapidly discharged of its gas, would be precipitated to the earth, and the destruction of its occupants rendered inevitable.

Under these circumstances, the voyagers did not lose their presence of mind, but calmly considered their situation, and promptly decided upon the course to be adopted. M. Barral climbed up the side of the car, and the net-work suspending it, and forced his way through the hoop, so as to catch hold of the valve-sleeve. In this operation, however, he was obliged to exercise a force which produced a rent in a part of the silk below the hoop, and immediately over the car. In a moment the hydrogen gas issued with terrible force from the balloon, and the voyagers found themselves involved in an atmosphere of it. Respiration became impossible, and they were nearly suffocated. A glance at the barometer, however, showed them that they were falling to the ground with the most fearful rapidity.

During a few moments they experienced all the anguish attending asphyxia. From this situation, however, they were relieved more speedily than they could then have imagined possible; but the cause which relieved them soon became evident, and inspired them with fresh terrors.

M. Barral, from the indications of the barometer, knew that they were being precipitated to the surface of the earth with a velocity so prodigious, that the passage of the balloon through the atmosphere dispelled the mass of hydrogen with which they had been surrounded.

It was, nevertheless, evident that the small rent which had been produced in the lower part of the balloon, by the abortive attempt to obtain access to the valve, could not have been the cause of a fall so rapid.

M. Barral accordingly proceeded to examine the external surface of the balloon, as far as it was visible from the car, and, to his astonishment and terror, he discovered that a rupture had taken place, and that a rent was made about five feet in length, along the equator of the machine, through which, of course, the gas was now escaping in immense quantities. Here was the cause of the frightful precipitation of the descent, and a source of imminent danger in the fall. M. Barral promptly decided on the course to be taken.

It was resolved to check the descent by the discharge of the ballast, and every other article of weight. But this process, to be effectual, required to be conducted with considerable coolness and skill. They were some thousand feet above the clouds. If the ballast were dismissed too soon, the balloon must again acquire a perilous velocity before it would reach the earth. If, on the other hand, its descent were not moderated in time, its fall might become so precipitate as to be ungovernable. Nine or ten sand-bags being, therefore, reserved for the last and critical moment, all the rest of the baggage was discharged. The fall being still frightfully rapid, the voyagers cast out, as they descended through the cloud already mentioned, every article of weight which they had, among which were the blankets and woolen clothing which they had brought to cover them in the upper regions of the atmosphere, their shoes, several bottles of wine, all, in fine, save and except the philosophical instruments. These they regarded

as the soldier does his flag, not to be surrendered save with life. M. Bixio, when about to throw over a trifling apparatus, called an aspirator, composed of copper and filled with water, was forbidden by M. Barral, and obeyed the injunction.

They soon emerged from the lower stratum of the cloud, through which they had fallen in less than two minutes, having taken fifteen minutes to ascend through it. The earth was now in sight, and they were dropping upon it like a stone. Every weighty article had been dismissed, except the nine sand-bags, which had been designedly reserved to break the shock on arriving at the surface. They observed that they were directly over some vine-grounds near Lagny, in the department of the Seine and Marne, and could distinctly see a number of laborers engaged in their ordinary toil, who regarded with unmeasured astonishment the enormous object about to drop upon them. It was only when they arrived at a few hundred feet from the surface, that the nine bags of sand were dropped by M. Barral, and by this manœuvre the lives of the voyagers were probably saved. The balloon reached the ground and the car struck among the vines. Happily the wind was gentle; but gentle as it was it was sufficient, acting upon the enormous surface of the balloon, to drag the car along the ground, as if it were drawn by fiery and ungovernable horses. Now arrived the moment of difficulty and danger, which also had been foreseen and provided for by M. Barral. If either of the voyagers had singly leaped from the car, the balloon, lightened of so much weight, would dart up again into the air. Neither would consent, then, to purchase his own safety at the risk of the other. M. Barral, therefore, threw his body half down from the car, laying hold of the vine-stakes, as he was dragged along, and directing M. Bixio to hold fast to his feet. In this way the two voyagers, by their united bodies, formed a sort of anchor, the arms of M. Barral playing the part of the fluke, and the body of M. Bixio that of the cable. In this way M. Barral was dragged over a portion of the vineyard rapidly, without any other injury than a scratch or contusion of the face, produced by one of the vine-stakes.

The laborers just referred to meanwhile collected, and pursued the balloon, and finally succeeded in securing it, and in liberating the voyagers, whom they afterward thanked for the bottles of excellent wine which, as they supposed, had fallen from the heavens, and which, wonderful to relate, had not been broken from the fall, although, as has been stated, they had been discharged above the clouds. The astonishment and perplexity of the rustics can be imagined on seeing these bottles drop in the vineyard. This fact also shows how perpendicularly the balloon must have dropped, since the bottles dismissed from such a height, fell in the same field where, in a minute afterward, the balloon also dropped.

The entire descent from the altitude of twenty thousand feet was effected in seven minutes, being at the average rate of fifty feet per second.

In fine, we have to report that these adventurous partisans of science, nothing discouraged by the catastrophe which has occurred, have resolved to renew the experiment, under, as may be hoped, less inauspicious circumstances; and we trust that on the next occasion they will not disdain to avail themselves of the coöperation and presence of some one of those persons, who, having hitherto practiced aerial navigation for the mere pur

poses of amusement, will, doubtless, be too happy to invest one at least of their labors with a more useful and more noble character.

VOYAGE OF THE FIRST WESTERN STEAMBOAT.

THE first western steamboat, was the New Orleans, a craft of four hundred tons burden, which was built at Pittsburgh in 1811. The origin of this boat and the history of her first voyage, is thus given by Latrobe, from which it will be seen that she narrowly escaped being overwhelmed in the great earthquakes that signalized the latter part of that year in the annals of the west.

The complete success attending the experiments in steam navigation made on the Hudson and the adjoining waters previous to the year 1809, turned the attention of the principal projectors to the idea of its application on the western waters; and in the month of April of that year, Mr. Rosevelt of New York, pursuant to an agreement with Chancellor Livingston and Mr. Fulton, visited those rivers with the purpose of forming an opinion whether they admitted of steam navigation or not. At this time two boats, the North River and the Clermont, were running on the Hudson.

Mr. Rosevelt surveyed the rivers from Pittsburgh to New Orleans, and as his report was favorable, it was decided to build a boat in the former town. This was done under his direction, and in the course of 1811, the first boat was launched upon the waters of the Ohio. It was called the "New Orleans," and was intended to ply between Natchez and New Orleans. In October, it left Pittsburgh on its experimental voyage. On this occasion, no freight or passengers were taken, the object being merely to bring the boat to her station. Mr. Rosevelt, his young wife and family, Mr. Baker, the engineer, Andrew Jack, the pilot, and six hands with a few domestics, formed her whole burden. There were no woodyards at that time, and constant delays were unavoidable.

When, as related, Mr. Rosevelt had gone down the river to reconnoitre, he had discovered two beds of coal, about one hundred and twenty miles below the rapids of Louisville, and now took tools to work them, intending to load the vessel with coal, and to employ it as fuel, instead of constantly detaining the boat while wood was procuring from the banks.

Late at night, on the fourth day after quitting Pittsburgh, they arrived in safety at Louisville, having been but seventy hours descending upward of seven hundred miles. The novel appearance of the vessel, and the fearful rapidity with which it made its passage over the broad reaches of the river, excited a mixture of terror and surprise among many of the settlers on the banks, whom the rumor of such an invention had never reached: and it is related, that on the unexpected arrival of the vessel before Louisville, in the course of a fine, still moonlight night, the extraordinary sound which filled the air as the pent up steam was suffered to escape from the valves, on round-

ing to, produced a general alarm, and multitudes in the town rose from their beds to ascertain the cause.

I have heard the general impression among the good Kentuckians, was, that the comet had fallen into the Ohio; but this does not rest upon the same foundation as the other facts which I lay before you, and which I may at once say, I had directly from the lips of the parties themselves. The small depth of water in the rapids, prevented the boat from pursuing her voyage immediately; and during the consequent detention of three weeks in the upper part of the Ohio several trips were successfully made between Louisville and Cincinnati. In fine, the waters rose, and in the course of the last week in November, the voyage was resumed, the depth of water barely admitting their passage.

When they arrived about five miles above the Yellow Banks, they moved the boat opposite the first vein of coal, which was on the Indiana side, and had been purchased in the interim of the State government. They found a large quantity already quarried to their hand and conveyed to the shore by depredators who had not found means to carry it off, and with this they commenced loading the boat. While thus employed, our voyagers were accosted in great alarm by the squatters of the neighborhood, who inquired if they had not heard strange noises on the river and in the woods in the course of the preceding day, and perceived the shores shake—insisting that they had repeatedly felt the earth tremble.

Hitherto, nothing extraordinary had been perceived. The following day they pursued their monotonous voyage in those vast solitudes. The weather was observed to be oppressively hot; the air misty, still and dull; and though the sun was visible like a glowing ball of copper, his rays hardly shed more than a mournful twilight on the surface of the water. Evening drew nigh, and with it some indications of what was passing around them became evident. And as they sat on deck, they ever and anon heard a rushing sound and violent splash, and saw large portions of the shore tearing away from the land and falling into the river. It was, as my informant said, an awful day; so still that you could have heard a pin drop on the deck! They spoke little, for every one on board appeared thunderstruck. The comet had disappeared about this time, which circumstance was noticed with awe by the crew.

The second day after leaving the Yellow Banks, the sun was over the forests, the same dim ball of fire, and the air was thick, dull, and oppressive as before. The portentous signs of this terrible natural convulsion continued and increased. The pilot, alarmed and confused, affirmed that he was lost, as he found the channel everywhere altered; and where he had hitherto known deep water, there lay numberless trees with their roots upward. The trees were seen waving and nodding on the bank, without a wind, but the adventurers had no choice but to continue their route. Toward evening they found themselves at loss for a place of shelter. They had usually brought to under the shore, but everywhere they saw the high banks disappearing, overwhelming many a flat-boat and raft, from which the owners had landed and escaped.

A large island in mid-channel, selected by the pilot as the better alternative, was sought for in vain, having disappeared entirely. Thus, in doubt and terror, they proceeded, hour after hour, until dark, when they found a small island and moored themselves at its foot. Here they lay, keeping watch on deck during the long winter's night, listening to the sound of the waters,

which roared and gurgled horribly around them: and hearing, from time to time, the rushing earth slide from the shore, and the commotion as the falling mass of earth and trees was swallowed up by the river. The lady of the party, a delicate female, who had just been confined on board as they lay off Louisville, was frequently awakened from her restless slumber by the jar given to the furniture and loose articles in the cabin, as several times in the course of the night, the shock of the passing earth was communicated from the island to the bow of the vessel. It was a long night, but morning showed them that they were near the mouth of the Ohio. The shores and channel were now not recognizable, for everything seemed changed. About noon of that day, they reached the small town of New Madrid, on the right bank of the Mississippi. Here they found the inhabitants in the greatest distress and consternation; part of the population had fled, in terror, to the higher grounds; others prayed to be taken on board, as the earth was opening in fissures on every side, and their houses hourly falling around them.

Proceeding from thence, they found the Mississippi unusually swollen, turbid and full of trees, and after many days of great danger, though they felt and perceived no more of the earthquakes, they reached their destination at Natchez at the close of the first week in January, 1812, to the astonishment of all, the escape of the boat having been considered an impossibility.

The Orleans continued to run between New Orleans and Natchez, making her voyages to average seventeen days, until 1813 or '14, when she was wrecked near Baton Rouge by striking on a snag. In the course of the few years succeeding the construction of the Orleans, several other boats were built and launched upon the western rivers. Yet such was their want of success that the public had no faith that steamboat navigation would succeed upon the western waters, until the trip of the Washington in the spring of 1817, when she went from Louisville to New Orleans and returned in forty-five days. This boat was of four hundred tons burden, and was built at Wheeling under the direction of her captain, H. M. Shreve. "Her boilers," says Judge Hall in his Notes, "were on the upper deck, and she was the first boat on that plan, since so generally in use."

SUFFERINGS OF CALIFORNIA EMIGRANTS.

NOTWITHSTANDING the great sufferings of various parties of overland emigrants to California since the era of the gold discovery, they will bear no comparison with those about to be related. In the latter part of the year 1846, a party of eighty emigrants, men, women and children, known as Reed and Donner's Company, by exploring a new route through the Deserts of Utah, and from other causes, lost so much time that they did not reach the Pass of the Sierra Nevada until the 31st of October, when they should have been there a month earlier. The snow, unfortunately, had commenced falling two or three weeks earlier

than usual, and when they arrived at the foot of the pass in the mountains, it had become so deep that they found it impossible to proceed. They erected cabins on the banks of Truckee Lake, near the eastern base of the Sierra Nevada, about one hundred miles northeast of the site of Sacramento City, and ere relief reached them, thirty-six of their number perished from cold and starvation, while the unfortunate survivors were obliged to subsist on the corpses of their companions, in order to escape a like fate.

From the 1st of November until the 16th of December, several attempts were made by some of the emigrants to cross the mountains from their cabins into the settlements, to bring relief to the company; but owing to the softness and the depth of the snow, they were obliged to turn back. On that day, expecting that they would be enabled to reach the settlements in ten days, seven men, five women, a boy and two Indians, having prepared themselves with snow-shoes, again started on the perilous undertaking, determined to succeed or perish.

On first starting, the snow was so light and loose that even with snow-shoes they sunk in twelve inches at every step. On the 17th, they crossed the dividing ridge, and by the 20th, owing to the extreme difficulty of walking in snow-shoes, and the softness of the snow, had succeeded in reaching only twenty miles in advance of their cabins. On that day, the sun rose clear and beautiful, and cheered by its sparkling rays, they pursued their weary way. On this day they traveled eight miles; but one of their number, Mr. Stanton, being unable to keep up with them, remained behind and perished in the snow. A severe snow storm having come on, they remained in camp until the 23d, when, although the storm continued, they traveled eight miles and encamped in a deep valley. Here the appearance of the country was so different from what they had anticipated, that they concluded they were lost, but determined to go on rather than return to their miserable cabins. They were also at this time out of provisions, and partly agreed that, in case of necessity, they would cast lots who should die to preserve the remainder. By morning, the snow had so increased that they could not travel; while, to add to their sufferings, their fire had been put out by the rain, and all their endeavors to light another proved abortive. Already death was in the midst of them, Antonio and Mr. Graves dying at that time.

In this critical moment the presence of mind of Mr. William Eddy suggested the plan for keeping themselves warm, practiced among the trappers of the Rocky Mountains when caught in the snow without fire. It is simply to spread a blanket on the snow, when the party—if small—with the exception of one, sit down upon it in a circle, closely as possible, their feet piled over one another in the center, room being left for the person who has to complete the arrangement. As many blankets as are necessary are then spread over the heads of the party, the ends being kept down by billets of wood or snow. After everything is completed, the person outside takes his place in the circle. As the snow falls it closes up the pores of the blankets, while the breath of the party underneath soon causes a comfortable warmth. In this situation they remained a day and a half. One of the men, Patrick Doolan, and Murphy, a boy, having in the meanwhile become delirious, died.

On the afternoon of the 26th they succeeded in getting fire into a dry pine-tree. Having been four days without food, and since October on short

allowance, they had now no alternative but starvation or preserving life by eating the corpses of the dead. This horrible expedient was resorted to with great reluctance. They cut the flesh from the arms and legs of Doolan, and roasted and ate it, averting their faces from each other and weeping.

Having stripped and dried the flesh from the bodies, they left the camp on the 30th, and with heavy hearts pressed on, wading through the snow and climbing the mountains with almost incredible fatigue; the blood from their frozen feet staining the snow over which they passed. Thus they continued on until the 5th of January, when Mr. Fosdick gave out, and his flesh was preserved to sustain life in the remainder. Soon after, Lewis laid down and died.

On the 17th, Mr. Eddy, who stood the fatigues better than any of the others, and had gone in advance of the rest, reached the settlement on Bear Creek, from whence relief was dispatched to the remains of his party. Of these, the females had borne up wonderfully. Not one had perished, while men of strong frames and nerves had gone down in the death-struggle. Never was the fortitude, the passive, enduring courage of woman more signally displayed, than in this dreadful march; they encouraged the men, by words and example, to bear up under their sufferings and persevere unto the end.

As soon as the people of San Francisco received from the settlement on Bear River intelligence of the dangerous situation of the emigrants encamped on Truckee Lake, they sent out several parties to their relief. Capt. Sutter also displayed his characteristic benevolence on the occasion, furnishing, in advance of the others, men and mules laden with provisions for the relief of the perishing sufferers. But such were the difficulties of reaching them, that it was not until the 29th of April that the last of the party was brought into Sutter's Fort.

A more shocking scene cannot be imagined, than that witnessed by the parties who went to the relief of the unfortunate emigrants. Large numbers had perished from cold and starvation. The bones of those who had died and been devoured by the miserable survivors, were lying around their tents and cabins. Bodies of men, women and children, with half the flesh torn from them, lay on every side. A woman sat by the side of the body of her husband, who had just died, and was in the act of cutting out his tongue; the heart she had already taken out, broiled, and eaten. The daughter was seen eating the flesh of the father—the mother, that of the children—children, that of parents. The emaciated, wild, and ghastly appearance of the survivors, added to the horror of the scene. The awful change cannot be described, which a few weeks of dire suffering had wrought in the minds of these wretched beings. Those who, but one month before, would have shuddered and sickened at the thought of eating human flesh, or of killing their companions and relatives to preserve their own lives, now looked upon the opportunity these acts afforded them of escaping death as a providential interference. Calculations were coldly made, as they sat around their gloomy camp-fires, for the next and succeeding meals. Various expedients were devised to prevent the dreadful crime of murder, but they finally resolved to kill those who had the least claims to longer existence, when just at that moment some of them died, which afforded temporary relief.

After the first few deaths, but the one all-absorbing thought of individual self-preservation prevailed. The feelings of natural affection were dried up. The cords that once vibrated with connubial, parental, and filial affection, were rent asunder, and each one seemed resolved, without regard to the fate of others, to escape from the impending calamity.

So changed had they become, that, on the arrival of the first party with food, some of them cast it aside, preferring the putrid human flesh that remained. The day previous, one of the emigrants took a small child in bed with him, and devoured the whole before morning.

With but few exceptions, all the sufferers, both those who perished and those who survived, manifested a species of insanity. Objects delightful to the senses often flitted across the imagination, and a thousand fantasies filled and disturbed the disordered brain.

Although in the midst of winter, their deluded fancies often represented to them during the day beautiful farm-houses, and extensive fields and gardens in the distance, toward which they would press forward with all the energy with which alternate hope and despair could inspire them. During the night, they often heard men talking, dogs barking, cocks crowing, and bells tinkling. Many believed that they were surrounded by familiar faces and old friends, and that they saw objects associated with scenes of other years and places. Some saw persons coming to their relief, and called to them to hasten. There were instances of persons suspecting, at times, that the terrible circumstances by which they were really surrounded were but the illusions of most horrible dreams, and they would rub their eyes, and put their hands upon their heads, to assure themselves, if it were possible, that all was not the result of a dreadful vision or nightmare.

Some of the party, though sometimes, during brief intervals, perfectly sane when awake, suffered from most painful and terrifying dreams—in which they saw combats and cries of despair and anguish, together with visions of famine and death, while floundering in fathomless snows.

Some of these unhappy emigrants felt a general sinking of all their mental and bodily energies, without, however, experiencing the gnawings of hunger. This absence of the sensation of hunger, was followed by an irresistible desire to sleep. In the course of half an hour after falling into this torpor, they breathed unnaturally and with difficulty, speedily followed by a rattling in the throat. This continued from one to four hours, when death closed the scene; the individual, in the meantime, appearing to be in a profound slumber. A few became furious, and died without sinking into this torpor. Others died calm and peaceful, taking affectionate leave of friends, and expressing a confident hope in the mercy of the blessed Redeemer.

The last relief party was conducted by Mr. Fallen, by which time all of the living sufferers had been taken into the settlements, excepting Mr. and Mrs. Donner, and a vile wretch named Keysburg. When the others left, Mrs. Donner remained with her husband, who was unable to travel. Why Keysburg remained can only be guessed. Donner was a highly respectabe and wealthy farmer of Illinois, and his lady a woman of great activity and energy, and of a polished education. They had with them abundant means, in money and merchandise.

Fallen and his party reached the cabins sometime in April, in one of

which, they found Keysburg reclining upon the floor smoking a pipe. Near his head a fire was blazing, upon which was a camp-kettle filled with human flesh. His feet were resting upon skulls and dislocated limbs stripped of their flesh. A bucket, partly filled with blood, was standing near, and pieces of human flesh, fresh and bloody, strewed around. His appearance was haggard and revolting. His beard was of great length; his finger nails had grown out until they resembled the claws of a wild beast. He was ragged and filthy, and the expression of his countenance ferocious. He stated that the Donners were both dead; that Mrs. Donner was the last to die, and had expired two days previously; that she had left her husband's camp eight miles distant, and came to his cabin. She attempted to return in the evening to the camp, but becoming bewildered, she came back to the cabin and died in the course of the night.

He was accused of having murdered her for her flesh, and the money the Donners were known to possess, but denied it, and also all knowledge of their money; but Fallen placed a rope around his neck and commenced hanging him to a limb of a tree, when to save his life, he confessed that he knew all about the money. They released him and he produced $517 in gold, which he had secreted. Against his will, they then compelled him to accompany them to the nearest settlements. The body of Donner was found in his cabin, where he had been carefully laid out by his wife, and a sheet wrapt around the corpse. This was the last act probably that she performed ere visiting the cabin of Keysburg.

On the 22d of June, 1847, the return party of Gen. Kearny halted at the scene of these horrible occurrences to collect and bury the remains. Near the principal cabins were two bodies entire, with the exception that their abdomen had been cut open and their entrails extracted. Their flesh had been wasted by famine, or evaporated by exposure to a dry atmosphere, and they presented the appearance of mummies. Strewn about the cabins, were dislocated and broken bones—skulls, some of which had been sawed apart carefully to extract their brains—human skeletons, in short, in every variety of mutilation, all presenting a most appalling and revolting spectacle.

TURKISH COFFEE HOUSES.

DR. RUSSELL, in his "History of Aleppo," says that the use of coffee was first introduced into Syria about the middle of the sixteenth century, or perhaps some years earlier than at Constantinople. "The Turks," he adds, "probably received the custom of smoking through water from Persia; that of smoking in the ordinary way they certainly had from Europe; and it is a curious circumstance in the history of human luxury, that a practice so disagreeable at first, and accompanied with so little positive sensual pleasure, afterwards should have spread with such rapidity among a people not much disposed to adopt foreign customs."

He gives several statements in his "Notes and Illustrations," as confirming his opinion. One of these is from the Journal of William Biddulph, who traveled to Jerusalem in 1600. "Their coffee houses," says Biddulph, "at Aleppo are more common than ale-houses in England, but they use not so much to sit in the houses, as on benches on both sides of the street, near unto a coffee house, every man with his finjon (cup) full, which being smoking hot, they use to put it to their nose and ears, and then sip it off by leisure, being full of idle and alehouse talk." "This," adds Dr. Russell, "is an exact description of what is done at Aleppo at this day; and had smoking tobacco been at that time a practice, it is hardly probable that Biddulph would have omitted it on this occasion, or where he describes their drinking sherbets, eating opium, &c."

Dr. Russell's own description of the coffee houses of Aleppo may here be quoted, as showing what they were in their "better days," before the spirit of change manifested itself in Turkey. "The coffee houses (of Aleppo) naturally attract the notice of a stranger, more than any of the objects he meets with in rambling over the city. They are found in all quarters of the town, and some of them are spacious and handsome. They are gaudily painted, and furnished with matted platforms and benches, those of the better sort have a fountain in the middle, with a gallery for musicians. A row of large windows discovers to a passenger all that is going on within; and the company being supplied with small, low, wicker stools, often choose, in the summer, to sit before the door in the open air. These coffee houses are not frequented by persons of the first rank, but occasionally by all others, so that they are seldom empty, and at certain hours, are full of company. To a spectator not accustomed to the eastern garb and manners, such a motley assembly, variously grouped and placed in picturesque attitudes, compose a no less amusing than interesting scene."

It was in the coffee houses that the "story-teller" found his stage and audience. "The recitation of Eastern fables and tales partakes somewhat of a dramatic performance. It is not merely a simple narrative; the story is animated by the manner and action of the speaker. A variety of other story-books, besides the Arabian Nights' Entertainments, furnish materials for the story-teller, who, by combining the incidents of different tales, and varying the catastrophe of such as he has related before, gives them an air of novelty even to persons who at first imagine they are listening to tales with which they are acquainted. He recites, walking to and fro in the middle of the coffee room, stopping only now and then, when the expression requires some emphatical attitude. He is commonly heard with great attention, and not unfrequently in the midst of some interesting adventure, when the expectation of the audience is raised to the highest pitch, he breaks off abruptly and makes his escape from the room, leaving both his heroine and his audience in the utmost embarrassment. Those who happen to be near the door endeavor to detain him, insisting on the story being finished before he departs, but he always makes his retreat good; and the auditors suspending their curiosity, are induced to return at the same hour next day to hear the sequel. He has no sooner made his exit than the company, in separate parties, fall to disputing about the characters of the drama, or the event of the unfinished adventure. The controversy by degrees becomes serious, and opposite opinions are main

TURKISH COFFEE HOUSES.

tained with no less warmth than if the fate of the city depended on the decision."

But the coffee houses of Constantinople, though still very numerous and much frequented, are no longer the important places they were. Towards the evening, they are much thronged by Turks, Armenians, Greeks, and Jews, all smoking and indulging in tiny cups of coffee, which is generally drunk by the poorer classes, not only without milk, but without sugar. Sultan Mahmood, after suppressing the Janissaries, endeavored to suppress the coffee houses, with what success the following extract from MacFarlane's "Constantinople in 1828," shall tell us.

"I was much surprised," says Mr. MacFarlane, "to see the great scarcity of coffee houses, which abound in Smyrna and in all the Turkish towns I had visited, and was struck with a disproportionate frequency of barbers' shops. It was explained when, on expressing a wish to rest awhile, my experienced Davide led me into one of those open chambers which, in appearance, was solely devoted to shaving, but which concealed, behind a wooden screen that looked like the end of the room, a spacious recess hung round with chibooks, (common pipes), *narghiles*, (water-pipes), and tiny coffee cups. The small charcoal fire for the preparation of the fragrant berry burned in the usual corner, and there were the usual benches and stools. In short it was a *bona fide* coffee house screened by a barber's shop, and a group of Osmanlis shuffled in immediately after us, not to be shaved, but to smoke their pipes and drink their cups of coffee.

"On the suppression of the Janissaries, the sultan issued an order for the general suppression of the innumerable coffee houses, the head-quarters of those turbulent reprobates, and the usual resort of the idle, the vicious, and the disaffected of the capital. Certain respectable houses in each quarter of the town were licensed. The vagrant story-tellers, who were accustomed to perform, *viva voce*, the office of our newspapers, and who were wont to collect crowds in these coffee houses, shared in the restrictions, and were threatened with something more serious than the treadmill—the bastinado. 'But,' said I to Davide, 'are all those hundred of barber's shops we have passed to-day nothing but veils to coffee houses?'

"'Not all, but the greater part of them.'

"'Yet the disguise might be easily penetrated; any bostandji might discover the recess, and arrest a crowd of delinquents—as here, for example.'

"'That 's all very true,' replied my phlegmatic Chaldean, 'but what would the bostandjis get by that? The fact is, the Turks cannot live without coffee houses; and, besides, the order to shut them up is now an old affair. Each cafidjii may make it worth their while not to see; and so, you understand, the Stambool-Effendi and officers of police under him need not look beyond the barber's shop.'

"During Davide's luminous speech, a Mollah, a starch man of the law and gospel, stepped in and called for a *narghile*."

THE GUNPOWDER PLOT.

PERHAPS no event in the history of England has more generally or permanently attracted the popular attention than that of the discovery of the gunpowder plot; and there is also perhaps no event in connection with which a greater amount of popular ignorance has existed. The causes of and the actors in the conspiracy have been alike comparatively unknown or misunderstood. Guido Faux, in particular, has been looked upon as the chief promoter of the plot, while its true author, Catesby, has been almost entirely overlooked; he has been considered a low, sanguinary and hired ruffian, while he was in reality a gentleman, in no respect distinguished from his companions, men, as he himself correctly termed them, of "name and blood," except by his unshaken courage, under the most appalling dangers, by his invincible fortitude under the pangs of torture and death.

To palliate the awful enormity of the crime contemplated by these conspirators, were in a measure to participate in their guilt; at the same time, it is but justice to acknowledge that they had persuaded themselves it was right thus to relieve the great body of their Catholic brethren from the cruel oppressions they were enduring, and, startling as the contrast between the means and the end justly appears to us, there can be no doubt that these fanatics hoped by so wholesale a murder to promote the cause of religion and enhance the glory of God! The true moral, therefore, of the transaction is of the highest practical importance; it shows us into what fearful atrocities fanaticism may lead men otherwise honorable and humane, and in spite of their being actuated by the purest intentions. That we may form a tolerably correct idea of the causes of the conspiracy, as well as of the motives of the conspirators, we present a few brief illustrations of the position of the Catholics at that time. Sir Thomas Tresham, originally a Protestant, was converted in 1580, by Campion and Parsons, two Catholic missionaries sent into England by the pope. From this period until the day of his death (twenty-five years) this unhappy man was never free from persecution. A great portion of this time was spent in jail, and altogether he underwent, to use his own touching words, "full twenty-four years of restless adversity and deep disgrace only for testimony of his conscience." During all this time, £260 a year was abstracted from his estate, being the statutory penalty of £20 a lunar month imposed upon all recusants, as those were called who refused to conform to the Protestant Church by attending its places of worship on the Sabbath. One of the conspirators, Tresham, was Sir Thomas' son. A second illustration is the case of Edward Rookwood, of Euston Hall, in Suffolk. This gentleman splendidly entertained Elizabeth on one of her royal progresses, and within a fortnight afterwards was thrown into jail, with "seven more gentlemen of worship." We need not pursue his history further than to quote the following extract from the parish register of burials for St. James', Bury St. Edmund's:—"Mr. Rookwood, from the

jail, buried June 4, 1598." Thus died the cousin of Rookwood, another of the conspirators. The last case we shall here mention is that of Mr. Thomas Throckmorton, head of the elder branch of the ancient family of that name. This gentleman's estate was under continual sequestration for the fines levied upon him; his life was shortened by no less continual imprisonment. Catesby and Tresham were Mr. Throckmorton's nephews, and two more of the conspirators, the brothers Winter, were also nearly allied to him. Some of the most barbarous of the laws under which these individuals were persecuted, passed during the latter years of Elizabeth's reign. The fines for recusancy were then declared, and Catholics forbidden to use the rites and ceremonies of their own faith.

The death of Elizabeth, however, excited fresh hopes in the minds of the Catholics. Percy, one of the conspirators, had been previously sent down to Edinburgh to learn James' opinion, and the answer was so favorable, that he, in common with the great body of the Catholics, was deceived, and warmly supported that monarch's cause. Wofully were these hopes disappointed. Within the first two or three years of James' reign the penal laws of Elizabeth were again in full force, accompanied with still more barbarous and exasperating regulations. At this point of time, and while matters were in this state, the design of blowing up the houses of parliament by gunpowder at the opening of the session, and thus destroying at one blow king, lords, and commons, appears to have been formed by Catesby.

Robert Catesby was the lineal descendant of the favorite minister of Richard III. His father, Sir William Catesby, also converted by Campion, had been several times imprisoned for recusancy, and his mother was a sister of the Thomas Throckmorton before mentioned; so that Catesby had seen those nearest and dearest to him suffering under continual and unrelenting persecution. He is said to have spent a considerable portion of his estate in licentiousness in his early years, and to have deserted the faith of his father; but in 1598, he returned to it, abjured his former dissolute courses, and, with all the ardor of his naturally enthusiastic mind, devoted himself to the task of making proselytes and of rescuing the Catholics from their thraldom. With this view he, as well as many other distinguished Catholics, supported the insurrection of Essex (who promised toleration), and was wounded and taken prisoner in the affair. His pardon was obtained with great difficulty and at the price of £3000. Various other treasonable projects were set on foot during the latter years of Elizabeth's reign by the Catholics, having all the same impelling motive, relief from persecution, and in which Catesby joined. He appears to have first disclosed his scheme to a friend, John Wright, who was descended from a respectable family in Yorkshire, and who had been also greatly harrassed with persecutions and imprisonments. He too had joined in Essex's insurrection. Thomas Winter, the next person admitted into the plot, was a mutual friend of Catesby and Wright: he was an able and accomplished man, familiar with several languages, and possessed a reputation among the Catholics for his skill in intrigue, which his personal acquaintance with some of the most influential ministers of foreign courts enabled him to turn to account. The three met at Lambeth, about Lent, 1603–4, when Catesby plainly told Winter that "his plan was to blow up the parliament house with gunpowder; for," said he, "in that place they have done us all the mischief, and perchance God hath designed that place for their punishment." Winter

hesitating, Catesby observed, "the nature of the disease required so sharp a remedy." Winter at last consented, his scruples being entirely removed by Catesby's observation, that in order to "leave no peaceable and quiet way untried," the former should go to the constable of Castile, Velasco, then in Flanders, on his way to England to conclude a peace between James and the King of Spain, and tell him of the state of the Catholics of England, in the hope that he might, on coming hither, solicit James to recal the penal laws, and admit the Catholics into the rank of his other subjects. It was at the same time agreed that Winter should bring over "some confident gentlemen" to help them in the plot, in case the efforts of Velasco should fail; and Catesby named Guido Fawkes. Winter accordingly departed, saw the constable, received full assurance of the good feeling of the King of Spain toward the English Catholics, but was told at the same time that no hope could be given that any decided stipulation in their favor would be included in the treaty. Winter returned with Fawkes, who was yet, however, unacquainted with the particular business for which he was required, and reached London in April, 1604.

Guido or Guy Fawkes was descended from a respectable family in Yorkshire. Of his early life little is known. He enlisted as a soldier of fortune in the Spanish army in Flanders, and was present at the taking of Calais by Archduke Albert in 1598. He is described by Father Greenway, one of the Catholic priests implicated in the plot, who escaped to Rome, and who knew all the conspirators intimately, as "a man of great piety, of exemplary temperance, of mild and cheerful demeanor, an enemy of broils and disputes, a faithful friend, and remarkable for his punctual attendance upon religious observances." His society "was sought by all the most distinguished in the Archduke's camp for nobility and virtue."

A few days after Winter's return, Thomas Percy, confidential steward to his relative the Earl of Northumberland, joined the conspiracy. He had been sent into Scotland, as we have mentioned, and returned full of hopes which, eventually discovered to be fallacious, caused him the deepest distress and mortification. When the conspirators met at Catesby's lodgings in London, Percy, entering last, addressed the others with, "Well, gentlemen, shall we always talk, and never do anything?" It was now agreed that before Catesby disclosed the particulars of his plan, they should all take a solemn oath of secrecy. Accordingly they met a few days after, in a house in the fields then lying beyond St. Clement's Inn, and the following oath was administered to each:—"You shall swear by the blessed Trinity, and by the sacrament you now propose to receive, never to disclose, directly or indirectly, by word or circumstance, the matter that shall be proposed to you to keep secret, nor desist from the execution thereof until the rest shall give you leave." This was sworn by all in the most solemn manner, "kneeling down upon their knees, with their hands laid upon a primer." The plan was now disclosed by Catesby to Percy, and by Winter and Wright to Fawkes; and after some discussion as to the means, they withdrew to an upper room, where they heard mass and received the sacrament from a Father Gerard, a Jesuit missionary. A house contiguous to the houses of parliament was now required, and a fitting one found in the occupation of a tenant of the king's wardrobe-keeper. Percy purchased this man's interest, 24th of May, 1604, on the pretence that it would be a convenience to him in the discharge of the duties of his office as a gentleman

pensioner. The scheme was now to pierce through the thick wall of the parliament-house, and deposit beneath it a quantity of gunpowder and combustibles. Fawkes, being unknown in London, was to keep the key and act as Percy's servant. About this time the meeting of parliament was adjourned until the 7th of February, 1605: the conspirators accordingly postponed operations until November. In the mean time a house was taken in Lambeth, for the purpose of collecting in it gradually the gunpowder, combustibles, &c. required. The custody of this house was entrusted to a new conspirator, Robert Keyes, who had been admitted into the plot at the suggestion of Catesby, after taking the prescribed oath. Robert Keyes, Key, or Kay, is supposed to have been descended from a highly respectable family, connected with the baronets of that name, but at the period of his admission was in indigent circumstances. He was introduced solely from consideration of the personal services he could render, whilst the others were men of property, which they were fully prepared to sacrifice in the affair. By the end of autumn the treaty between the kings of England and Spain was signed, and no stipulation in favor of the Catholics included. The spirit of persecution was now again given free scope. The judges about to depart for their respective circuits received express instructions in the Star-chamber to enforce strictly the penal laws against the Catholics. Whatever scruples the conspirators may have felt, whatever divisions of opinion there might be among them, now disappeared; they met again in London, and determined to proceed with their project.

They entered the house about the 11th of December, 1604, with tools and a quantity of provisions, and endeavored for some time to pierce through the thick wall of the parliament-house. Parliament being further prorogued until the 3rd of October, 1605, during the Christmas holidays the conspirators took three other individuals into their body, namely, John Grant, an accomplished but moody gentlemen of Warwickshire, on whom also persecution had done its work; Robert Winter, a brother of Thomas; and Thomas Bates, Catesby's servant, who was admitted solely from the discovery that he had formed much suspicion of the plot. On recommencing their labors in January, 1605, they heard overhead a great rumbling noise, and fully expected they were discovered. Fawkes, however, presently brought them intelligence that one Bright was selling off his coals from a cellar directly under the house of lords. This was immediately taken by Percy, and the mine abandoned. Thirty-six barrels of gunpowder were brought over the water from Lambeth, and deposited in the cellar, mixed with large stones and bars of iron, to make the breach more terrible, and the whole carefully covered with fagots of wood. By May all was prepared. Other individuals were now introduced, namely Sir Everard Digby, of Drystoke, in Rutlandshire, an enthusiastic young man, and Ambrose Rookwood, both of whom were bosom friends of Catesby; in fact, Rookwood's attachment was of that romantic nature that he appears to have joined the plot mainly from its impulses; and lastly, Thomas Tresham, son of the Sir Thomas Tresham before mentioned. This last individual appears to have wanted that desperate fidelity to his brother conspirators, and to their common object, that signalized each of the others. He was rich, and promised considerable pecuniary assistance; but from the moment of his admission into the plot, Catesby was a continual prey to doubts and misgivings. As the day approached the 5th of November, the conspirators met

frequently at White Webbs, a solitary house near Enfield Chase, to arrange their proceedings. Fawkes, it was agreed, should fire the powder by a slow-match, and escape to the ship then hired and waiting for him in the Thames, and pass over instantly to Flanders, and do what he could there for the cause. Now came their greatest difficulty, namely, that of pointing out the individual members of the House of Lords who should be saved, and the means by which warning could be given without exposing the plot or its agents to the risk of discovery. Nearly all had dear friends in the upper house, but Catesby endeavored to calm their apprehensions by assuring them that the peers in question (who were all Roman Catholics) would certainly stay away, seeing how useless was their presence in the face of the overwhelming majority of their religious opponents. "But," said Catesby, "with all that, rather than the project should not take effect, if they were dear to me as mine own son, they must also be blown up."

Tresham, after some vain endeavors to obtain leave to warn Lord Monteagle, or to have the plot altogether postponed, appears to have written, or caused to have written, the following letter to that nobleman:—"My lord, out of the love i beare to some of youer friends, i have a caer of youer preservacion, therefor i would adyse yowe as yowe tender youer lyf to devyse some exscuse to shift of youer attendance at this parleament, for God an man hathe concurred to punish the wickednes of this tyme; and thinke not slightlye of this advertisement, but retyere youre self into youre countrie wheare yowe maye expect the event in safti, for thowghe theare be no apparance of anni stir, yet i saye they shall receyve a terrible blowe this parleament, and yet they shall not seie who hurts them. This councel is not to be contemned because it maye do yowe good, and can do yowe no harme, for the dangere is passed as soon as yowe have burnt the letter; and i hope God will give yowe the grace to make good use of it, to whose holy proteccion i commend yowe." Lord Monteagle received this letter on the 26th of October, and there is strong reason to suppose he was prepared to receive it, for on that particular day he supped at his house at Hoxton, a very unusual circumstance; and on receiving it, tossed it over to a gentleman in his service, who the very next morning *warned Thomas Winter*, and through him the other conspirators, that the letter had been sent to the minister Cecil. On the 30th of October, Tresham, who had been in the country, returned to town, and attended the summons of Catesby and Winter at Enfield Chase. They at once charged him with the letter, and if he were its author the moment must have been a terrible one to him, for they had determined to dispatch him instantly upon his exhibiting any marks of confusion or acknowledgment. He, however, denied the charge with a clear voice, assured countenance, and the most solemn oaths, and they let him go.

On returning to London they sent Fawkes to see, by means of certain marks, whether the door had been opened. He returned with an answer in the negative, and they then informed him of the letter, excusing the danger they had subjected him to, on the plea of its necessity. Fawkes replied, that he should have gone had he known of it, and engaged to go daily until the 5th, with the same purpose. The lords of the council had correctly gathered the nature of the danger so darkly intimated in the letter; but these courtiers thought proper to give James the credit of the discovery. It was determined to take no step till the night of the 4th.

On Sunday, the 3rd, the conspirators were again warned by Lord Monteagle's gentleman that the king had seen the letter, and made great account of it. Tresham was once more sought, and he spoke like a man "beside himself." He told the conspirators that to his certain knowledge they were all lost men unless they saved themselves by flight. Still they did not flee. That very night Fawkes went again to keep watch in the cellar. On Monday afternoon, the 4th, the lord-chancellor Suffolk went down to the house, accompanied by Lord Monteagle, and on the pretence that some of the king's stuffs were missing, threw open the door of the cellar and saw Fawkes standing there. They asked him carelessly, who he was. He replied, Mr. Percy's servant; on which one of them observed, "Your master has laid in a good stock of coals," and departed. Fawkes hurried to acquaint Percy of this visit, and then again returned to the cellar. At about two o'clock in the morning (it was now the 5th) Fawkes undid the door and came out to look about him: he was instantly seized and carried to Whitehall. He was questioned in the king's bedchamber, where all parties seem actually to have been afraid of him, helpless as he was, so unchanged was his countenance—so fearlessly scornful his replies and bearing. He avowed his purpose—was sorry it had failed—but would give no satisfaction as to his accomplices. The king asked him how he could have the heart to destroy his children, and so many innocent souls. "Dangerous diseases require desperate remedies," was the reply. A Scotch courtier asked why he had collected so many barrels of gunpowder. Fawkes replied, "One of my objects was to blow Scotchmen back into Scotland." He was tortured the following days; and on the tenth most cruelly, as his signature to a paper wrung from him on that day presents the most unmistakable evidence. Yet after all he does not appear to have told the government a single secret—he confessed nothing but what he was well assured it was useless to conceal.

We must now return to the other conspirators. Catesby and John Wright left London, according to a general arrangement, on the 4th, for Dunchurch, where Sir Everard Digby was collecting a great number of Catholic gentlemen, ostensibly as mere guests, but in reality with a view to a sudden appeal to arms on the successful issue of the plot. Percy and C. Wright left London immediately after Fawkes' arrest; Keyes somewhat later in the morning; whilst Rookwood, who had placed relays of horses the whole distance to Dunchurch, did not start till near noon. He then mounted and rode off with the most desperate speed. On Finchley Common he overtook Keyes, who again parted from him at Turvey; at Brickhill he overtook Catesby and John Wright, and the three soon afterwards came up with Percy and C. Wright. All five swept along at a headlong rate, throwing even their cloaks into the hedge to ride lighter, and about six o'clock in the evening rushed into Lady Catesby's house at Ashby, St. Leger's, Northamptonshire, covered with dirt and half dead with fatigue. Rookwood had thus ridden eighty miles in little more than six hours. Here they found one of the Winters and other Catholic gentlemen; and the whole party rode off to Dunchurch, where they found Sir Everard Digby and a great number of guests. Had these men even now thought less of their cause and more of their own lives, they would have had no difficulty in reaching some port and escaping to a foreign country. But they yet hoped to raise the country in their favor, although the very gentry assembled deserted

them the moment they heard the particulars of the plot and its failure. They were at last attacked in a house at Holbeach, on the borders of Staffordshire; and Catesby, the two Wrights, and Percy, were all killed or mortally wounded; the remaining conspirators, namely, the two Winters, Rookwood, Sir Everard Digby, Grant, Keyes, and Bates, were taken prisoners, either at the same time or shortly afterwards.

On the trial not a single witness was orally examined, the evidences consisting entirely of the written depositions of the prisoners and of a servant of Sir Everard Digby. Nothing appeared to implicate the great body of Catholics (although Garnet and Oldcorne, two Jesuit priests, were afterwards executed for their share in the conspiracy;) in fact, Sir Everard Digby pathetically lamented that he should have sacrificed everything in a cause that the Catholics and the priests universally looked upon as sinful. The conspirators pleaded generally in extenuation of their crime, the sufferings they had undergone on account of their religion—the violated promise of the king—their despair of legal relief—their dread of still harsher treatment—and lastly, their natural desire to reëstablish that religion which they believed alone to be true. They were all condemned to death, which was to be inflicted in that revolting manner which the sanguinary laws of the time justified. They died—part of them on the 30th of January, and the remainder on the 31st—repenting of their purpose, but with courage and fortitude.

MR. JOHN POUNDS, "THE GRATUITOUS INSTRUCTOR OF POOR CHILDREN."

JOHN POUNDS was born at Portsmouth, England, in 1766. An accident which occurred during his apprenticeship in the Dockyard rendered it necessary for him to learn another trade. He placed himself under an old shoemaker, became enabled to obtain an honest subsistence as a shoe-mender, and for thirty-five years was the occupant of a weather-boarded tenement in his native town.

About thirty years ago John Pounds took upon himself the charge of a feeble little boy, his nephew, whose feet were deformed. He effectually cured this distortion by an ingenious imitation of the ordinary mechanical means recommended by the faculty. His heart warmed towards this poor child, one of a large and poor family, and he became its instructor, a task which gave him great delight. But he was not content to confine his exertions to his little nephew; and his heart being fairly engaged in the duties of education, and seeing the necessity of instructing the poor, he began to seek out pupils amongst the most neglected and destitute. His second pupil was the son of a poor woman, who was herself absent from home the whole of the day endeavoring to obtain her living as a hawker, her child in the meantime being left amidst frost and snow in the open street. Unfortunately there were too many children whose parents were too poor to

provide or too reckless to care for the instruction of their offspring, and scholars became so numerous that his humble workshop, which was about six feet wide and eighteen feet in depth, could not contain so many as he would have willingly taught. Some principle of selection was necessary, and in such cases he always preferred and prided himself on taking those whom he called "the little blackguards." His biographer says: "He has been seen to follow such to the town quay, and hold out in his hand to them the bribe of a roasted potato to induce them to come to school." In the last few years of his life he had generally forty scholars under his instruction at one time, including about a dozen little girls, who were always placed on one side by themselves. Here he pursued his double labors, seated on his stool with his last or lapstone on his knee, and mending shoes, while his pupils were variously engaged, some reading by his side, writing from his dictation, or showing him their performances in accounts. Others were seated on forms, on boxes, and on a little staircase. We give the following interesting account of his modes of tuition in the words of his biographer:—"Without having ever heard of Pestalozzi, necessity led him into the interrogatory system: he taught the children to read from handbills, and such remains of old school books as he could procure. Slates and pencils were the only implements for writing, yet a creditable degree of skill was acquired; and in ciphering, the "Rule of Three" and "Practice" were performed with accuracy. With the very young, especially, his manner was particularly pleasant and facetious: he would ask them the names of different parts of their body, make them spell the words, and tell their uses. Taking a child's hand, he would say—"What is this? Spell it." Then slapping it, he would say—"What do I do? Spell that." So with the ear, and the act of pulling it; and in like manner with other things. He found it necessary to adopt a more strict discipline with them as they grew bigger, and might have become turbulent, but he invariably preserved the attachment of all." He took an enlarged view of the objects which education should comprise, and endeavored to impart valuable practical knowledge to his scholars, teaching them how to cook their own plain food and to mend shoes. He was their doctor and nurse when they had any ailments; and when they were in health, he was not only the master of their sports, but the good old man made playthings for the younger children. He encouraged his pupils to attend Sunday schools, exerting himself to procure clothing for them, in order that they might make a creditable appearance. On Sunday morning they put on their dress at his house, and in the evening it was again restored to him. Some hundreds of persons in all have been indebted to him for all the education which they had ever received at school; and as a necessary consequence, many are now filling stations of credit and respectability, whose elevation poverty and ignorance combined would have prevented, even if these misfortunes had not consigned them to the gaols, the hulks, or the penal settlements. It is said—"he never sought compensation for these labors; nor did he obtain any, besides the pleasure attending the pursuit, the satisfaction of doing good, and the gratification felt when occasionally some manly soldier or sailor, grown up out of all remembrance, would call to shake hands, and return his thanks for what he had done for him in infancy. Indeed some of the most destitute of his scholars have often been saved from starvation only by obtaining a portion of his own homely meal."

Mr. Pounds died suddenly on the 1st of January, 1839. His biographer touchingly says—"The children were overwhelmed with consternation and sorrow; some of them came to the door next day, and cried because they could not be admitted; and for several succeeding days the younger ones came, two or three together, looked about the room, and not finding their friend, went away disconsolate." Nor was he unlamented by his fellow-townsmen. The services which he rendered to the ignorant and neglected children of the poor entitle him to a place among those humble benefactors of mankind whose deeds of goodness have been, like his, performed in a spirit of rare benevolence. Few indeed will refuse their admiration of that active zeal which acquired for him, a poor man himself, the title of "the gratuitous instructor of poor children." There are in every large town teachers of children full as humble as he, but he brought to his task an innate love for the work, which a true philanthrophy kept ever alive, while too frequently they are driven to their reluctant duties by a hard necessity.

THE RUSSIAN EMPIRE.

IT is scarcely possible that the space which the Russian empire occupies on the map of the world should not force itself upon the attention. It forms the ninth part of the habitable portion of the globe, and far exceeds in extent the empire of Rome when its dominion extended from the Euphrates to Britain. On the frontiers of China the Russian boundary line is above three thousand miles in length, which is as long as a line drawn from the south-western extremity of Portugal to the north-eastern extremity of Europe, while from the most southern point of Greece to the shores of the frozen ocean is not more two thousand four hundred miles. Great Britain sinks into insignificance in respect to territorial extent when compared with Russia, its greatest length, from the coast of Cornwall to the northern extremity of Scotland, not greatly exceeding 600 miles, and its greatest breadth, at any one point, being only 320 miles. But the distance from Riga, on the Baltic, to the haven of Peter and Paul in Kamtschatka, is above 11,500 miles, and in the Russian Post Book, a line of road is marked out in stages to a distance of 8134 miles. A courier from St. Petersburg to Kamtschatka is above a hundred days in performing the journey and though for the latter part of it the rate of traveling is not very rapid, yet the usual rate is one hundred and sixty miles a day for the first forty days.

When, however, we begin to examine the available strength and resources of such an empire as that of Russia, we find territorial magnitude is one of the causes which least contributes to substantial national power. The population of the empire amounted, in 1836, to 61,000,000, or about one-fifteenth of the human race, but it consists of many different races, some of whom are still in a nomade state, and wander with their flocks over the

immense plains or steppes of Asiatic Russia, while others obtain a livelihood only by fishing and hunting. The plains possess the ordinary qualities of fertility which are usually found in so extensive an area, the soil in many parts being extremely rich, but in others its properties are less promising, and districts occur which offer no inducements whatever to the agriculturist. Between the river Ob and the Frozen Ocean, immense marshes and swampy forests prevail. The 'Government' of Tobolsk, though a thousand miles in width, contains little more than one-half as many inhabitants as the West Riding of Yorkshire; and in the north-eastern extremity of the Russian Empire, Captain Cochrane traveled four hundred miles without meeting a single individual, and in the course of a thousand miles he saw only one habitation. In the 'Government' of Archangel, which is three times as large as Great Britain, and equal in extent to the whole of the Austrian dominions, the population scarcely amounts to one for each square mile. Almost the only accommodations which the traveler finds in the inhospitable regions of Eastern Siberia, are the 'charity yourtes' erected every twenty-five miles by the public authorities. They are simply uninhabited log-houses, about twelve feet square, without windows, and in which shelter only is obtained. This, however, is the least favorable picture of the Russian empire, and is true only in reference to its northern parts. Extending from 38° to 78°, it presents every variety of climate, from that of Spain and Portugal to the rigors of the arctic circle. The provinces of the central and southern parts are thinly inhabited, though the soil and climate are highly favorable to the progress of industry and population; but in the south there is less of a national spirit than in the north, until we reach the disputed territory of Georgia and Circassia, where the authority of Russia is opposed by force of arms. The process of converting the various people under the Russian dominion to Russian habits and ideas is however proceeding as rapidly as could be expected. In the center and in the south, instead of the thick fogs which brood over the shores of the Frozen Ocean, and a climate which drives men from agriculture to the rivers and forests for food, we find the vegetation of the tropics and the most luxurious productions of the temperate zone. On the banks of the Don the vine is the spontaneous produce of the soil, and attempts are at present making to cultivate the sugar-cane and the indigo plant. Between 49° and 51° of latitude, in the territory occupied by the 'Line of the Cossacks of Siberia,' melons and the tobacco plant spring up without cultivation. On the banks of the Irtish Captain Cochrane found the general summer diet consisted of bread with fine melons and cucumbers, grown of course in the open air. "No part of the world," he says, "can offer greater or more certain advantages to the agriculturist than the right bank of this river, where the soil is a rich black mould,"—and it will be recollected it is Siberia of which he speaks,—a country regarded as proverbially inhospitable, which in truth it is over a great part of its surface.

Many of the finest provinces of the south of Russia were almost wholly uncultivated at the commencement of the last century. Soon after the accession of the Empress Catherine, she invited foreign colonists to settle, and 10,000 Germans, Swiss, French, and Swedes were placed in above a hundred villages, chiefly situated between the Volga and the Don. These villages appear to be very prosperous, and are rapidly increasing in population; the births to the deaths are as three to one. There are besides,

RUSSIA——VIEW OF CRONSTANDT

elsewhere, many other colonies of foreigners, particularly of Germans; and settlers are encouraged by exemption from taxes. The land unoccupied is still of immense extent. Captain Jones, who traveled through various parts of the Russian empire in 1826, speaks of extensive districts in the neighborhood of Taganrog, on the sea of Azof, possessing an extremely rich soil, "in many parts perfect garden mould, and capable of producing any or everything," but the population was scanty, and not sufficient for the cultivation of the land. He passed over several tracts of sixty miles of desert in this fine region.

From the preceding statements we may form some idea of the endless diversity of circumstances under which man exists in regions so varied as those comprised in the Russian empire. In one quarter the vegetation is of a tropical character. At another, (Nijnei Kolimsk, on the Frozen Ocean,) "the inhabitants manage, with great labor, to feed a couple of cows; hay is brought eighty miles distant for them. Horses occasionally reach this place, but never spend more than a few days here, during which they are obliged to live on the tops and bark of bushes, or on moss. If we select any process of agriculture, we shall find a variety of means practised to attain the same object, each influenced, in a great degree, by local causes. Take employment of animal power, for instance, and while, south of Tobolsk, we find the sledges drawn by horses, north of that place only the rein deer or dogs are used. In the Crimea, the two-humped camel is employed. In the neighborhood of Taganrog, the plough may be seen at work drawn by ten oxen, of the color and almost of the size of elephants. In other parts, oxen from the steppes of the Volga, the Don, and the Caucasus, are used in transporting goods, but not in tilling the land. Winter, which in some provinces is a season of inactivity and repose, is a period of life, bustle, and animation in others. The wheels are taken off vehicles, and merchandise is transported with extraordinary ease over the frozen surface of the snow. At this season the fares by the diligences are lower than at other periods of the year. In a country of smaller extent, such striking diversities do not exist; but to give any satisfactory account of all those which are most prominent in the various arts of life would occupy too much space.

In Russia there is scarcely anywhere to be met with any great concentration of labor and extensive application of animal and mechanical power. In many provinces the towns are few and the communication between them difficult. There is little or no trade, and manufactures of the simplest kind are yet in their infancy. But the aggregate results of the industry of above sixty millions of people are of course very large.

St. Petersburg is the principal seat of foreign commerce, as Moscow is of the vast internal trade of the empire. The former is the great maritime outlet of the Gulf of Finland, and has an extensive communication with the interior by rivers and canals. Our engraving represents a view of Cronstadt, which is the great naval station of the Russian fleet in the Baltic, and is also the harbor of St. Petersburg, although thirty-one miles distant from that city. The waters of the Neva, on which St. Petersburg stands, are too shallow to admit vessels of large burden; their cargoes are therefore discharged at Cronstadt, and barges are employed in transporting them to the city. Cronstadt is built on an island about seven miles long and one broad, and the mouth of the harbor is strongly defended by

a fortress built on an opposite rock. Here are extensive wet and dry docks, with storehouses and all the great establishments which are requisite for fitting out a fleet and keeping it in repair and fit for service, including foundries for cannon, rope-walks, &c. Canals are constructed which enable a ship of the line to take in her stores close to the warehouses. The Military Canal, capable of containing 35 sail of the line, besides smaller vessels, has become so shallow as to be incapable of admitting large ships. Cronstadt was founded by Peter the Great. In 1703 a ship from Holland was the first merchantman that had ever appeared in the Neva, and the captain and crew were treated with great hospitality by Peter. In 1714 sixteen ships arrived; and from 1300 to 1500 now clear inward annually, of which one-half are usually English. The navigation is open about 190 days in the year—from the middle of May to the end of November. Cronstadt contains many good streets, which are well paved, but, with the exception of the public buildings, the houses are built of wood. The principal public edifices are Admiralty, Naval Hospital, School for Pilots, the Exchange, Custom House and Barracks. In summer, all is life and animation, for the activity of the year is crowded into the space of a few months; but as the winter approaches, and the last ships of the season take their departure, fearful of being locked up by the ice, the scene changes, and all becomes dull. The summer population of Cronstadt amounts to about 40,000, exclusive of soldiers, sailors, and persons employed in the dockyards. The English are more numerous than any other foreigners.

THE DANCING MANIA.

IT is a well known fact that diseases wear out, not only in individuals, but in nations; the leprosy and the sweating sickness live only in the pages of history, or at any rate, are no longer to be seen in Europe; and St. Vitus' dance, a troublesome, but rarely a formidable disease, is the meager remnant of an epidemic which once afflicted thousands, and spread terror and confusion over large districts. This singular change—this mitigation of the disease from a rabid dance to a mere convulsion or distortion of a few muscles, was, we believe, first distinctly narrated and commented on by Dr. Hecker of Berlin.

It was in the year 1374 that assemblages of men and women were seen at Aix la-Chapelle, who had come out of Germany, and yielded to the uneasiness which oppressed them in the following manner: they formed circles, hand in hand, and continued dancing in the streets for hours together, in a wild delirium, till they fell from sheer exhaustion. They were then in a state of extreme oppression from the tympany which followed these spasmodic ravings; and of this they were relieved by having cloths bound tightly round their waists, or, more simply still, by thumping and trampling on the parts affected. "While dancing, they

neither saw nor heard, being insensible to external impressions through the senses, but were haunted by visions, their fancies conjuring up spirits whose names they shrieked out; and some of them afterwards asserted that they felt as if they had been immersed in a stream of blood, which obliged them to leap so high."

In the worst cases, the attack began with epileptic convulsions; yet, though the patients fell to the ground senseless, and foamed at the mouth, they were able to spring up and begin the dance amid strange contortions. The disease first appeared at Aix-la-Chapelle in July, and in a few months spread over the Netherlands. In many towns the dancers wore garlands in their hair, and had cloths round their waists, which were tightened as soon as the fit was over, to relieve their uneasiness. Many, however, received more benefit from kicks and blows, which the bystanders were ever ready to administer. These morbid pranks were universally attributed to demoniacal possession, and intimidated the people to such a degree, that by express ordinance none but square toed shoes were to be made, the dancers having manifested a strong dislike to the pointed shoes which had come into fashion in 1350, immediately after the great plague. They were extremely irritated at the sight of red colors, and some of them could not bear to see persons weeping. Whether from the exorcisms of the clergy, or from mere exhaustion, this particular epidemic soon died out, and in ten or eleven months the St. John's dancers, as they were called, were no longer to be seen in any of the cities of Belgium. This first set of dancers appeared in Aix-la-Chapelle with St. John's name in their mouths, and it is sufficiently probable that the revels of St. John's day, 1374, gave rise to the disease. The people, says Dr. Hecker, were suffering from wretchedness and want, and the frantic celebration of the festival, then observed with great form, was sufficient to kindle the malady in constitutions already prepared for it. In the language of medicine, starvation was the predisposing cause, and the gayety of the festival the exciting one. The bowels, debilitated by hunger and bad food, were naturally attacked by tympanitis, which will account for the relief obtained by bandaging.

At a later period, in 1418, namely, Strasburg was visited by the dancing plague, and here the aid of St. Vitus was invoked for the cure of the patients. St. Vitus was a Sicilian youth who suffered martyrdom with Modestus and Crescentia, under Diocletian, in the year 303. His fame gradually increased with the progress of time; and at the beginning of the fifteenth century, or perhaps in the fourteenth, the legend came forth that he could and would protect from the dancing mania all who should solemnize the day of his commemoration, and fast upon its eve.

The Strasburg patients were conducted to the chapels of St. Vitus, near Zabern and Rotestein, and, after hearing mass, were led in solemn procession to the altar. It is probable that many were cured there; at all events, they did not dance before the altars of the saint. Burton, in his "Anatomy of Melancholy," tells the chief facts very pleasantly; he says of St. Vitus' dance, "It is so called for that the parties so troubled were wont to go to St. Vitus for help; and, after they had danced there awhile, they were certainly freed. 'Tis strange to hear how long they will dance, and in what manner, over stools, forms and tables. One in red clothes they cannot abide. Music, above all things, they love; and therefore magis-

trates in Germany will hire musicians to play to them, and some lusty, sturdy companions to dance with them. This disease hath been very common in Germany, as appears by those relations of Schenkius, and Paracelsus, in his book of madness, who brags how many several persons he hath cured of it. Felix Platerus (*De Mentis Alienat.*, cap. iii.) reports of a woman in Basle whom he saw, that danced a whole month together. The Arabians call it a kind of *palsy*."

These dancing plagues, however, are by no means the most ancient recorded in history. In 1237 more than a hundred children were seized with this disease, at Erfurt, and went dancing and jumping along the road to Arnstadt. Here they fell exhausted to the ground; many of them died, and the rest were afflicted with a permanent trembling for the rest of their lives. In 1278, two hundred fanatics began to dance upon the bridge over the Moselle at Utrecht, and would not desist till a priest passed, who was carrying the host to a sick person, on which the bridge gave way and they were all drowned. Nay, as early as 1027, a similar event occurred near the convent church of Kolbig.

Eighteen peasants are said to have disturbed divine service on Christmas eve, by dancing and brawling in the churchyard; on which the priest, Ruprecht, cursed them to the effect that they should dance and scream for a whole year without ceasing. This curse was fulfilled, says the legend, so that the sufferers at length sank knee deep into the earth, and remained without nourishment till they were released by the intercession of two pious bishops. Upon this they fell into a deep sleep, which lasted three days; four of them died, and the rest continued to suffer all their lives from a trembling of their limbs.

Whatever fragment of truth there may have been in this story, it was firmly believed during the middle ages, and with the succeeding plagues of a like kind so impressed the minds of the people, that St. Vitus' dance formed the basis of a heavy maledictiâ: *Dass Dich Sanct Veitstanz ankomme*, i. e. may you be seized with St. Vitus' dance. It was not till the beginning of the sixteenth century that St. Vitus' dance lost its unhallowed character, as the work of demons, and became the subject of medical inquiry. This was due to that great and eccentric genius Paracelsus, who explained the communication of the disease by sympathy with considerable ingenuity, and recommended a curious remedy for the variety which depended on the imagination. "The patient was to make an image of himself in wax or rosin, and by an effort of thought to concentrate all his blasphemies and sins in it. 'Without the intervention of any other person, to set his whole minds and thoughts concerning these oaths in the image;' and when he had succeeded in this, he was to burn the image, so that not a particle of it should remain."

This imaginative method of curing a distemper dependent on the imagination appears to be copied, as Dr. Babington observes, from a classic mode of enchantment. The sorceress made a wax image of the person to be tormented; and by sticking pins into the figure, or melting it before the fire, she hoped to inflict similar evils on the prototype. Thus Simoetha says, in Theocritus:

> "Just as I melt this wax before the fire,
> So may young Delphis waste with slow desire."

Nor did this strange fancy expire with the superstition of the ancients, for

it is to be found in the works on magic written in the middle ages. About this time the dancing mania began to decline, so that the severer cases of St. Vitus' became rarer, and in modern times have totally disappeared. Schenck von Graffenberg, a celebrated physician, who died in 1598, speaks of the disease as having been very common only in the time of his forefathers. In the beginning of the next century it was only occasionally observed in its ancient form. Thus in 1623 G. Horst saw some women who annually performed a pilgrimage to St. Vitus' chapel at Drefelhausen, near Weissenstein, in the territory of Ulm. There they waited till the dancing fit came on, continuing day and night in a state of delirium, till they fell to the ground; and when they recovered from this state they felt relieved of the uneasiness and sensation of weight, of which they had complained for weeks previously. Music seems in some measure to have excited the paroxysms of St. Vitus's dance, though by its continuance it soothed the violence of the convulsions.

The Thirty Years' War, which lasted from 1618 to 1648, finally extinguished this singular form of disease; for though the calamities it brought upon Germany were unspeakable, yet, with the vehemence of a purifying fire, they gradually effected the intellectual regeneration of the Germans, and thus put a stop to a malady excited by superstition.

The dancing mania, or in other words, this instinct for curing mental and physical uneasiness by violent and regular motion, has prevailed at other times and places; and the examples given by Dr. Hecker bring down the morbid chain of phenomena from the middle ages to our own times.

Of these varied forms of the same irresistible impetus the most famous by far is tarantism, the disease supposed to be caused by the bite of the tarantula. This insect is a ground spider, found in Apulia, a southern province of Italy, where the malady first made its appearance. The learned Nicholas Perotti, who was born in 1430, and died in 1480, gave the earliest account of this remarkable disorder. Those who were bitten became melancholy and stupified; and in many this condition was combined with an exquisite sensibility to music, so that the first notes of their favorite airs made the patients leap up shouting for joy, and they danced without intermission till they sank to the ground exhausted and almost lifeless. In others, the disease did not take this cheerful turn, but they wept constantly, spending their days in misery and anxiety; and some are said to have died in a paroxysm of laughing or crying.

Tarantism, however, did not originate in the fifteenth century, for Perotti speaks of it as a well known malady. Besides which, "a nervous disorder that had arrived at so high a degree of development must have been long in existence, and doubtless had required an elaborate preparation by the concurrence of general causes." (Hecker, p. 66.) For, according to Dr. Hecker's ingenious and probable theory, an epidemic is the result of a given social state, and reflects as in a mirror the faults and follies, the wants and miseries of the people among whom it appears, as well as the terrestrial and astral influences then prevailing. And as an inundation cannot be the result of any momentary cause, but is produced by long continued rains, which, in their turn, are the effects of still remoter agents, so a deep-rooted disorder spread over a large district, though it may seem to arise suddenly, never does so in reality, but has been prepared by a long series of habits and opinions. Even in individuals the onset of disease is

rarely so sudden as the uninstructed suppose; the hæmorrhage in the brain, which destroys life by apoplexy, commonly results from the long continued ossification or earthy brittleness of an artery; and even an attack of fever supposes a predisposition in the patient, since, of millions exposed to its exciting causes, comparatively few are affected with it. The symptoms produced by the bite of venomous spiders were well known to the ancients; they enumerate among them lividity of the whole body as well as of the face, difficulty of speech, nausea, vomiting, watchfulness, lethargy and fainting; and even death, they add, is sometimes the consequence of the bite. But they do not mention an irresistible inclination to dance among the symptoms, nor even that the patients were accidentally cured by it. The first who approaches the point is Gariopontus, a physician of the eleventh century, who describes a kind of madness in which "the patients, in their sudden attacks, behaved like maniacs, sprang up, throwing their arms about with wild movements, and if perchance a sword was at hand, they wounded themselves and others, so that it became necessary carefully to secure them. They imagined that they heard voices and various kinds of sounds, and if, during this state of illusion, the tones of a favorite instrument happened to catch their ear, they commenced a spasmodic dance, or ran with the utmost energy which they could muster until they were totally exhausted."

These sufferers were looked upon as persons possessed. Gariopontus does not mention the tarantula as a cause of the disease, but says that if it has been produced by the bite of a mad dog, or if the patient foams at the mouth, the patient dies within a week. He calls the malady *anteneasmus*, probably a corruption of *enthusiasmus*.

This curious form of insanity was unquestionably a forerunner of tarantism, the latter having begun probably about 1374, or the period when St. Vitus' dance first appeared in full force; but it was in truth the development of germs already existing, and founded on morbid phenomena of at least two centuries' standing. The pomp of religious processions, the custom of public penance, and the mysticism with which the doctrines of Catholicism were then blended, must have brought many minds into a state fit for the reception of a nervous disorder. Moreover, Italy was ravaged by the oriental plague sixteen times between 1119 and 1340. Small-pox and measles were more destructive than in our times. St. Anthony's fire (erysipelas) was much dreaded, and the leprosy banished its innumerable victims from human society. Then came the black death, the acme of these calamities; and, as individuals become morbidly sensitive under the pressure of misfortune and anxiety, so that slight causes, insufficient to affect the healthy, induce in them severe diseases, so it was with the Italian nation, whose natural sensitiveness was then so much increased that the bite of a venomous spider, or rather the fear of its consequences, was sufficient to excite tarantism—like a spark bringing a heap of combustibles into a blaze. Thus, in the language of Dr. Hecker, "the furies of *the Dance* brandished their scourge over afflicted mortals;" and music, strange to say, while it excited these ecstatic motions in the predisposed, lulled them when at their height—at once the bane and antidote.

At the close of the fifteenth century, tarantism had spread beyond Apulia. Death itself was expected from the wounds inflicted by the venomous spiders, or, in more favorable cases, the patients were said to pine away in

despondent lassitude. The flute or cithern alone afforded relief; at their sound the afflicted opened their eyes and began to dance, at first following the slow movement of the music, and then hurried on with the most passionate vivacity, as the strain changed to a more lively one. The rude clown became graceful, even physical clumsiness giving way before moral excitement. City and village resounded with the fife, the clarionet, and the Turkish drum, and *tarantati*, or persons bitten by the tarantula, were to be seen everywhere, whose medicine was in these instruments. Alexander ab Alexandro saw a young man in a paroxysm of the malady. "He listened with eagerness and a fixed stare to the sound of a drum, and his graceful movements gradually became more and more violent, until his dancing was converted into a succession of frantic leaps, which required the utmost exertion of his whole strength. In the midst of this overstrained exertion of mind and body the music suddenly ceased, and he immediately fell powerless to the ground, where he lay, senseless and motionless, until its magical effects again aroused him to a renewal of his impassioned performances."

The prevailing doctrine of the time was, that though the poison of the tarantula was expelled by music and dancing, yet if the slightest trace remained, this became a permanent germ of the disease; and a complete expulsion seems to have been rarely hoped for; so that relief rather than a cure was expected, and the *tarantati*, like the St. Vitus' dancers, awaited with impatience the return of their annual festivities.

Matthioli, whose commentary on Dioscorides was published in 1565, gives the same sort of account as Alexander. The hopeless languor of the patients, their starting from their couches at the first sound of the melodies composed for their benefit, (the *tarantellas*, as they were called,) the relief they experienced from the most furious dancing, and their sudden exhaustion if the music ceased for an instant, form a lively picture of this singular epidemic.

Among other peculiarities, some patients had an impetuous liking for certain colors; red, though detested by the St. Vitus' dancers, was generally a favorite with the *tarantati;* others preferred black or yellow, which was explained agreeably to the theories of the time, by the doctrine of temperaments. When the desired color appeared, the patient rushed towards it with the eagerness of a lover, and devoured the handkerchief, or whatever it might be, with kisses, while the tears streamed from his eyes.

On one occasion the Cardinal Cajetano went to see the dancing fits of a certain Capuchin friar at a monastery in Tarentum. When the friar, however, saw the purple robe of the Cardinal, even the tarantella which he was dancing could no longer satisfy him, so enamored was he of the rich color of the dress. As he did not immediately attain his object, he fell into a swoon, from which he was recovered by the Cardinal kindly giving him his purple cape. He seized it with ecstacy, pressing it to his forehead, cheeks, and breast, and then again began his frenzied dance.

Another symptom was the extraordinary passion for the sea manifested by the patients. Some, hurried on by an ungovernable impulse, or, in Scottish phrase, *fey*, rushed into the blue waves, while others were contented with ample vessels filled with water, and surrounded by water plants, in which they bathed their heads and arms. But the chief remedy was

music. Attempts, indeed, had been made in ancient times, as we learn from Pliny and Cælius Aurelianus, to soothe the pain of sciatica and the paroxysms of madness by the melody of the flute; and, what comes still nearer the present point, it was done to prevent bad consequences from the bite of a viper. But these anticipations of the method of treating the tarantati were rare. Many, when bitten by the tarantula, died miserably because the tarantellà was not played to them. The different kinds of the tarantella were distinguished by names having reference to the various moods of the patient. Thus one was called *panno rosso*, or red cloth—evidently intended from its liveliness, for the wilder patients; while the *panno verde*, or green cloth, "was suited to the milder excitement of the senses caused by green colors, and set to idyllian songs of verdant fields and shady groves." In the appendix, Dr. Hecker gives various pieces of music for the dance of the tarantati from Athan. Kircher. Their univer sal termination in a minor key would seem to show, as we might expect, that the joyousness of the dancers was forced, and that amid their fiercest transports, melancholy was the most deeply rooted of their sentiments. The firm persuasion that the bite of the tarantula was highly dangerous, had its effect on the stoutest. "So late as the middle of the sixteenth century, the celebrated Fracastoro found the robust bailiff of his landed estate groaning, and with the aspect of a person in the extremity of despair, suffering the very agonies of death from a sting in the neck, inflicted by an insect which was believed to be a tarantula. He kindly administered, without delay, a portion of vinegar and Armenian bole, the great remedy of those days for the plague and all kinds of animal poisons, and the dying man was, as if by a miracle, restored to life and the power of speech. Now, since it is quite out of the question that the bole could have anything to do with the result in this case, notwithstanding Fracastoro's belief in its virtues, we can only account for the cure by supposing that a confidence in so great a physician prevailed over this fatal disease of the imagination, which would otherwise have yielded to scarcely any other remedy except the tarantella."

Ferdinando, a physician in Messapia, at the beginning of the seventeenth century, mentions the existence of skeptics who thought that tarantism was merely a melancholy depending on the imagination. Some of them, however, paid dearly for their incredulity. Thus Jo. Baptist Quinzato, bishop of Foligno, having allowed himself, by way of a joke, to be bitten by a tarantula, found no cure till he danced like other tarantati. Some of the clergy who thought the remedy derogatory to their station, and would, if possible, have abstained from its use, were obliged, after a tormenting delay, to have recourse to the inevitable dance. Hysterical women, moreover, joined the throng, and danced without having been bitten by the tarantula; and impostors were not wanting. Hence we may see why so many physicians and naturalists have denied the existence of tarantism as a real disease, and attributed the whole to fraud or imagination. They tried, indeed, to produce the disease, and failed. But the subjects of their experiments were healthy men, uninfluenced by a belief in the disease; and their negative results could hardly disprove phenomena which had existed for nearly four hundred years. Tarantism declined with the progress of the seventeenth century, and is now limited to single cases.

In setting forth the history of these lively plagues, St. Vitus' dance and

tarantism, we have given the narration almost in the words of Dr. Hecker, or rather his translator, Dr. Babington; so that our account may so far be considered a faithful abridgment of his work. The remainder, however, we must cut short; partly, lest this article should swell to an unreasonable length, and partly, because the other species of the dancing mania are either less interesting or better known.

A species of the dancing mania exists in Abyssinia, where it is called *Tigretier*, from the Tigré district, where it chiefly prevails. Nathaniel Pearce, who resided in Abyssinia from 1810 to 1819, and afterwards published his life and adventures, gives an account of it. The disease consists of a fever followed by emaciation and unintelligible stuttering. The first remedy, in general, is to have "the assistance of a learned doctor, who reads the gospel of St. John, and drenches the patient with cold water daily for the space of seven days—an application that very often proves fatal." But the most efficacious treatment consists in loud and long continued music; the patient, as in the case of the St. Vitus' dancers and the tarantati, having strength enough to tire out the musicians, though weak in other respects. The Abyssinians of modern times may be considered, in many respects, as representing the Europeans of the middle ages; and it is not surprising, therefore, to find a form of disease which the progress of civilization has expelled from our happier countries, still lingering in Africa. If we may believe Nathaniel Pearce, two other singularities of the dark ages continue to survive there. First, the Abyssinians have a sect of flagellants, called *Zackarys*, who boast that they are descendants of St. George. They scourge themselves till they drain blood, and make wounds with knives to boot. Secondly, this people believe in zoomorphism, or the transformation of men into beasts. The belief of the middle ages was expressed by the word *lycanthropy*, or wolf-manishness: certain persons, it was thought, had the power of changing themselves into wolves, and they were sometimes condemned to the flames for this *uncanny* faculty. Among the Abyssinians, the blacksmiths and potters form a separate caste, and are supposed to be able to turn themselves into hyænas and other beasts of prey.

These African peculiarities are quite as curious as the dancing plagues of Germany and Italy; but as Horace observes that the brave men who lived before Agamemnon are unhonored and unwept for want of a poet, so it has happened that these notable doings in Abyssinia are almost unknown for want of a greater historian than N. Pearce. It is easy to perceive in the accounts handed down to us of the dancing epidemics of the middle ages, how much of the disorder depended on sympathy and imitation. Man, says Aristotle, is an imitative animal; and this great truth holds good in the contortions of disease, as well as in our habits, occupations and amusements. It may seem strange to some that there should exist an instinct of copying the painful struggles of a patient in convulsions, but so it is; and as the avalanche, the farther it has descended, the more easily it collects its reïnforcements, so the greater the number of patients attacked the greater is the moral and physical influence which they exercise on those around them.

But these epidemic convulsions spread most widely when they arise from religious enthusiasm. A disorder of this kind began in a Methodist chapel at Redruth, in Cornwall, England, and was diffused with the rapidity of

lightning over the neighboring towns of Camborne, Helston, Truro, Penryn, and Falmouth. The spasms were of frightful vehemence, and at least 4000 persons were affected with them.

Similar attacks took place in the Shetland Islands during a long series of years, and perhaps occasionally occur even now. In one parish an intelligent and pious minister prevented these paroxysms, by which the service in his church was impeded, by observing that the best cure was plunging in cold water; and as his kirk was near a fresh water lake, and the remedy was thus at hand, "not a single Naiad was made," and the fits were stopped by simple fear.

But perhaps the *convulsionnaires*, in France, are the most remarkable examples in modern times of a convulsive mania. There died at Paris, in 1727, the Deacon Pâris, a zealous opponent of the party in the French church who were called Ultramontanists. Four years after his death it was reported that miracles were performed at his tomb. Many of those who visited it were seized with tetanic spasms and other convulsive symptoms, accompanied by quickness and irregularity of the pulse. The *convulsionnaires*, like the St. John's dancers and the *tarantati*, were relieved by blows, and this kind of assistance was called the *grands secours*. Magnetic sleep was first observed in this sect. Their singular proceedings went on without interruption till the year 1790, when the French Revolution, like a strong counter irritation, put a stop to them. Yet, after all, it did not *quite* put an end to them, for this once celebrated sect still existed in 1828, though without the convulsions from which they derived their name.

In conclusion, it is difficult to determine whether we are to look upon the dancing mania merely as an instructive chapter in the history of human weakness, a link between voluntary and involuntary actions, or whether we should not rather consider it as a union of the spiritual and material—a glimpse into the unknown world of psychical phenomena!

THE BLACK DEATH.

THE history of medicine, like the art itself of which it recounts the changes, may be divided into two parts. It may be considered as a narrative of the diseases which have afflicted mankind, or of the effects of remedies on these maladies. In either point of view it is most useful to look back on the tale of bygone calamities, and read the future in the past. It is well to know the whole catalogue of remedies that have been tried against a given disorder, lest we should unwittingly repeat vain experiments, and imagine that we are combating a disease by a new method, when we are merely renewing some useless trial of Celsus or Galen; and it is well also to know the progress of ancient distempers, particularly those of the epidemic kind, that we may learn, if possible, from what social evils they spring and by what social improvement they may be prevented.

Every epidemic, indeed, is said to have its own genius; so that Sydenham asserted that when a new one prevailed, he always lost several patients before he learned its peculiarities, and the best methods of encountering them. But it is very possible that this difficulty, felt by the greatest of English physicians, may have arisen from the want of an ample history of disease; for as the stars seen in a winter sky seem innumerable to the uninstructed, but in reality are within the limits of number, so it may turn out that the varieties of epidemics are not really countless, but are capable of being enumerated and studied.

Probably no one has contributed so much to this desirable end as Dr. Hecker of Berlin, who deserves, if any man ever did, the title of "the historian of disease." Three of his works are on the Black Death, the Dancing Mania, and the Sweating Sickness—three noted epidemics.

Great pestilences, he observes, are preceded by changes in the external world. "The powers of creation come into violent collision; the sultry dryness of the atmosphere, the subterraneous thunders, the mist of overflowing waters, are the harbingers of destruction."

And as these physical phenomena go before, so moral changes of an equally striking stamp are sure to follow. The excitement produced by a sweeping epidemic is so strong that some considerable alteration for good or for evil necessarily takes place in the moral character of nations, and they either attain a higher degree of virtue, or sink deeper into ignorance and vice. The most memorable example of this theory is a great pestilence of the fourteenth century, which ravaged Europe, Asia, and Africa. It was a true oriental plague and received the name of the "Black Death," from the black spots, indicative of a putrid decomposition, which appeared upon the skin. In Italy it was called *la mortalita grande*, the great mortality.

It is this pestilence which is beautifully described by Boccacio, in the introduction to his Decameron. The symptoms were those of the ordinary plague, which may be defined as an inflammatory fever, accompanied by swellings of the glands, and commonly running its course in a few days. But the Black Death was also attended by an expectoration of blood, the lungs being attacked with carbuncular inflammation, which must have greatly added to the fatality of the other symptoms. After its first fury, however, was spent, the epidemic passed into the usual form of the oriental plague, hemorrhage being no longer an essential symptom. This fearful pestilence had been preceded by earthquakes and famine; "from China to the Atlantic the foundations of the earth were shaken; throughout Asia and Europe the atmosphere was in commotion, and endangered by its baneful influence both vegetable and animal life."

These convulsions in the frame of the globe began in China in 1333, fifteen years before the plague broke out in Europe. A drought, accompanied by famine, commenced in the country watered by the rivers Kiang and Hoai. Four hundred thousand persons perished in the floods caused by violent torrents of rain, while in the district of Tche, after an unexampled drought, five millions of people are supposed to have been carried off by a plague. Droughts and deluges, famines and earthquakes, appear to have followed each other with fearful rapidity. Mountains fell in; and on one occasion, after three months' rain, seven cities were destroyed by inundations. The fury of the elements did not subside in China till 1347.

In Europe, the signs of terrestrial commotion began in 1348. In Cyprus, the plague had already broken out, when the island was shaken by an earthquake, accompanied by so tremendous a hurricane that the inhabitants fled in all directions. Previous to the earthquake a pestiferous wind blew, of so deadly a stamp that many fell down suddenly and expired in agonies. Dr. Hecker observes that this is one of the rarest of all phenomena, as nothing is more constant than the composition of the atmosphere, naturalists never having been able to discover foreign and pernicious ingredients in the air carrying disease over whole portions of the earth, as is recorded to have taken place in 1348. We must remark, however, that the human body is often a more delicate test than any philosophical instrument; and the Italian *Sirocco* and Egyptian *Khamsin* have far more striking effects on the body than could have been anticipated from their mere heat and dryness. The depressing powers of the east wind, too, do not yet admit of any satisfactory explanation. This poisonous vapor was not confined to Cyprus, for German chroniclers inform us that a thick stinking mist advanced from the east, and spread over Italy.

The earthquakes extended over a great part of Europe; in Carinthia thirty villages together with all the churches, were destroyed; and more than a thousand dead bodies were taken out of the ruins. These earthquakes recurred until the year 1360, in Germany, France, Silesia, Poland, England, Denmark, and even farther north.

Rains, floods, and failures of crops were general; and famine of course followed in their train. In the larger cities of Italy they were obliged, in the spring of 1347, to distribute bread among the poor; at Florence large bakehouses were built, from which, in April, 94,000 loaves, each weighing twelve ounces, were given out every day.

As to the sources of the epidemic, it is probable that there were two; the plague originating in Europe itself, where for centuries it was a common disease, and also being propagated by contagion from the east. The spitting of blood, the infallible attendant on this epidemic when it appeared in its severest form, is not mentioned in all the reports; and it is very possible that the ordinary disease, without the expectoration of blood, was the native plague, while the more malignant species was introduced. The disease, says Dr. Hecker, was a consequence of violent commotions in the earth's organism.

As to the mortality of the Black Death, it is difficult to estimate its ravages numerically. In the fourteenth century Europe was but half civilized, and to count with accuracy is one of the last of social refinements. The accounts, therefore, of the mortality are somewhat vague, and perhaps in some instances exaggerated; though the largeness of the numbers tallies well with the entire depopulation of many cities and countries. In China, more than thirteen millions are said to have died; and it was reported to Pope Clement, at Avignon, that in the East 24,000,000 had fallen victims to the plague; and this estimate probably did not include China. At the height of the epidemic, from 10,000 to 15,000 are said to have died daily at Cairo—a number equal to those carried off in the whole course of some great modern plagues.

In Caramania and Cæsarea none were left alive; on roads, in camps and caravanseras, unburied bodies alone were seen; Cyprus lost almost all its inhabitants; and in the Mediterranean, as well as the North Sea,

ships without crews were seen driving along at the mercy of the winds and waves. In some of the towns of Europe the deaths from the Black Plague were as follows:—

In Florence, 60,000; in Venice, 100,000; in Marseilles, (in one month,) 16,000; in Siena, 70,000; in Paris, 50,000; in St. Denys, 14,000; in Avignon, 60,000; in Strasburg, 16,000; in Lubeck, 9,000; in Basle, 14,000; in Erfurt, at least 16,000; in Weimar, 5,000; in Limburg, 2,500; in London, at least 100,000; in Norwich, 51,000. To which may be added — Franciscan Friars in Germany, 124,434; Minorites in Italy, 30,000.

Alfonso I. died of it at the siege of Gibraltar, in March, 1350. Johanna, queen of Navarre, daughter of Louis X., and Johanna of Burgundy, wife of King Philip of Valois, also fell a sacrifice to this plague, as well as great numbers of other distinguished persons. Five hundred died daily in the Hotel Dieu, under the care of the Sisters of Charity, who displayed the finest traits of Christian heroism. They, too, died, evidently from contagion, but there was no deficiency of candidates to fill up their ranks and devote themselves to the sacred calling.

The churchyards were soon unable to contain the dead. At Avignon, the pope found it necessary to consecrate the Rhone, that bodies might be thrown into it without delay. At Vienna, the interments of corpses in the churches and churchyards was forbidden, and the dead were placed by layers, in thousands, in six large pits outside the city, as had been already done at Cairo and Paris.

In many places it was rumored, that plague patients were buried alive, as may sometimes happen through senseless alarm and indecent haste; and thus the horror of the distressed people was every where increased. In Erfurt, after the churchyards were all filled, 12,000 corpses were thrown into eleven great pits; and the like might more or less exactly be stated with respect to all the larger cities. Funeral ceremonies, the last consolation of the survivors, were everywhere impracticable.

In Germany, according to an account which Dr. Hecker thinks probable, there died "only" 1,244,000 inhabitants. But this country was more spared than others; while Italy, on the contrary, is said to have lost one-half of its inhabitants. It is said that in all England scarcely one-tenth of the population remained alive, but this is clearly an exaggeration. Yet these immense losses were soon repaired. Marriages, of course, became more numerous; and the population of great cities would be rapidly made up by immigration from less important places. The arts of peace and war proceeded as usual; the battle raged, the spinning wheel went round, the fields gave their wonted harvest, and in a few years the Black Death, though never to be utterly forgotten, would be far less frequently remembered. So vast and terrible an event, or rather so dreadful a series of events, must have had deep moral effects, for good or evil. So awful a calamity, desolating whole provinces, and making death the familiar topic of all conversation, and the common theme of every man's thoughts, must assuredly have produced the reformation of many an offender, and infused some sense of religion into the dullest mind. Yet, as Luther observed that "human nature is like a drunken trooper on horseback, for if you set it up on one side, down it falls on the other," so in this memorable era affrighted Europe leaped over religion into fanaticism.

The most remarkable example of this distorted zeal was the reäppearance of the Flagellants. As far back as the eleventh century many believers did penance by flagellation; but St. Anthony, in 1231, is said to have been the author of these solemn processions. In 1334, fourteen years before the great plague, the sermon of Venturinus, a Dominican friar, induced more than ten thousand persons to undertake a pilgrimage, which they performed, scourging themselves in the churches. In 1349, two hundred Flagellants first entered Strasburg, where they were warmly received, and made many converts. At length their sanctity was questioned, and the doors of houses and churches were shut against them. The wild and unruly conduct of these enthusiasts was far from agreeable to the Romish Church, whose authority they disregarded so far as even to give absolution to each other. Their heretical excesses were condemned by authority; and as the Flagellants gradually lost their popularity, the laws enacted against them were easily executed; so that at last these unfortunate fanatics were persecuted in several places with relentless severity. Bishop Preczlaw of Breslaw condemned one of their masters to death, and had him publicly burnt. Yet this particular form of fanaticism by no means died out with the plague of the fourteenth century, and processions of the Crossbearers, or Flagellants, were seen in Italy as late as 1710.

But the moral convulsion resulting from this epidemic produced a result worse than the worst excesses of the Flagellants, we mean the cruel persecutions of the Jews. They were suspected of having poisoned the wells or infected the air, and were, in consequence, sometimes given up to the fury of the populace, and sometimes murdered, according to the forms of law, by the sentence of tribunals. They were put to the torture, until the required answer was obtained, and then burnt alive on their own evidence. At Spires, the Jews, driven to despair, burned themselves in their own houses; at Esslingen they consumed themselves in their synagogue.

Fanaticism and persecution naturally went hand in hand; and the entrance of the Flagellants into a city would be a signal for the massacre of the Jews. In Mayence alone, which the Flagellants entered in August, 12,000 Jews are said to have been put to a cruel death.

An account of so remarkable an epidemic would not be complete without some account of the preventive and curative measures by which it was attempted to combat the pestilence, however ineffectual they may have been. The physicians of the fourteenth century did what human intellect could do, in the actual state of the medical art. The medical faculty of Paris, the most celebrated of the time, gave their opinion at length as to the causes of the pestilence and the best means of checking its progress. They supposed the disease to arise from vapors produced by the influence of the heavenly constellations; and predicted that the mist caused by these astral influences would be converted into a stinking deleterious rain, by which the air would be purified. To protect every one from the effects of this rain, they advised that large fires should be kindled of vine-wood, green-laurel, or other green wood; and that large quantities of wormwood or chamomile should be burnt both in the market places and in houses. Among their precautions, one is that fat people should not sit in the sunshine. If it rain, a little treacle is to be taken after dinner. By this we apprehend is not to be understood the treacle procured by refining sugar, which would scarcely be known at that time, but the Venice treacle, or

theriaca, a celebrated compound of honey and aromatics. It is not, however, in this paper of the Parisian college, that Dr. Hecker thinks the medical tact of that age is to be found; but he apologizes for its weakness from the painful necessity under which the Faculty found themselves, "of being wise at command, and of firing a point-blank shot of erudition at an enemy who enveloped himself in a dark mist, of the nature of which they had no conception."

Gentilis of Foligno, Guy de Chauliac, and Galeazzo di Santa Sofia, contemporary physicians, all wrote on this plague, and showed sufficient good sense in their advice. They were all aware that it was contagious; so that Dr. Maclean's supposition, that the doctrine of contagion was first promulgated in 1547, is quite erroneous.

Santa Sofia was in favor of bleeding and purgatives, but against bleeding till fainting was produced; and he advised strengthening of the heart and prevention of putrescence; appropriate regimen; improvement of the air; and the treatment of swelled glands and inflammatory boils with emollient or even stimulant poultices, (such as those made with mustard or the bulbs of the lily,) as well as with red-hot gold and iron. Lastly, he recommended attention to prominent symptoms, that is to say, that each case should be treated according to its characteristic peculiarities, and not merely with reference to the name of the disease.

The first enactment for the separation of the infected from the healthy originated with Viscount Bernabo, and is dated January 17th, 1374.

Dr. Hecker does not say when the Black Death terminated, except, parenthetically, in a passage where he speaks of Valescus of Tarenta, "who, during the last visitation of the Black Death, in 1382, practised as a physician at Montpellier." In the majority of places, it had ceased, we believe, long before this. On the whole, whether we consider the vast surface of the world ravaged by the Black Death, or the multitudes whom it swept away, it must be allowed a frightful preëminence, and must probably be considered as the greatest pestilence on record.

THE SEA-COAST OF PALESTINE.

THE sea-coast of Palestine is not naturally adapted for a maritime people; there is not a good harbor to be found on it. The best is that of Acre, of which, though it is called "the maritime key of Palestine," Dr. Clarke says, "The port is indeed bad, but it is better than any other along the coast." Joppa (now Jaffa or Yaffa,) which was the only port the Jews possessed while they existed as an independent nation, at least the only place entitled to the name of a national port, is one of the worst on the Mediterranean, and only rose into importance on account of its vicinity to Jerusalem, from which it lies about forty miles west. Even

SEA COAST OF PALESTINE.

the slip of coast which was possessed by that wonderful people, the Phœnicians, is not at all adapted to the wants of modern navigation. Speaking of the country when it formed a portion of the Roman empire, Gibbon in his summary way, says, "Phœnicia and Palestine were sometimes annexed to, and sometimes separated from, the jurisdiction of Syria. The former of these was a narrow and rocky coast; the latter was a territory scarcely superior to Wales, either in fertility or extent. Yet Phœnicia and Palestine will forever live in the memory of mankind; since America as well as Europe, has received letters from the one and religion from the other." In a note he adds, "The progress of religion is well known. The use of letters was introduced among the savages of Europe about fifteen hundred years before Christ; and the Europeans carried them to America about fifteen centuries after the Christian era. But in a period of three thousand years the Phœnician alphabet received considerable alterations as it passed through the hands of the Greeks and Romans."

By looking along the outline of the coast, as delineated in a map, the reader will remark the more important names which give interest to a shore naturally rugged and dangerous. Gaza and Askalon, the "two brides," will remind him of the Philistines, who gave the name of Palestine to the country, and of their great antagonist Samson, who carried off the gates of the one, and provided himself with raiment from the inhabitants of the other. It was prophesied that "Gaza shall be forsaken and Askalon a desolation." The present Gaza is a modern town that arose on the ruins of the old. Alexander the Great was twice wounded during his siege of Gaza, and the town also suffered from a furious insurrection of the Jews; and this latter circumstance is considered to be an explanation of Luke's words, when in recording the directions which Philip received, he says that he was ordered to go "towards the south unto the way that goeth down from Jerusalem unto Gaza, *which is desert.*" As for Askalon, the birth-place of Herod the Great, it is "a desolation." Farther on is Joppa, now Jaffa, beyond it Cæsarea, which arose, as it were, in a day, at the will of Herod, then the famous Acre, with the noble promontory of Carmel; and beyond these again the territory of the once powerful "merchant-princes," whose ships, in the far-past history of our world, floated on unknown seas, and carried the civilizing influence of commerce to the most distant "isles of the Gentiles." The whole line of coast is comparatively a ruin; but the silence and desolation of that part of it which was once animated by the life and bustle of the people of Tyre and Sidon, renders it perhaps as affecting a scene as the traveler can contemplate.

The laws, customs, and institutions of the Jews did not dispose them to become a maritime people; and accordingly, in the best days of their monarchy, when they aspired to the possession of a navy, their neighbors, the Phœnicians, were their instructors, guides, merchants, and carriers. After the fall of Tyre, and when Palestine became a portion of the Roman empire, there was more commercial activity in the Jewish ports, and their rulers gave it encouragement. Herod the Great, who, though he was a bad man and a tyrant, had yet a very enterprising and magnificent spirit, built the city of Cæsarea, of which Josephus gives the following account:—

"Upon his observation of a place near the sea, which was very proper for containing a city, and was before called Strato's tower, he set about getting a plan for a city there, and erected many edifices with great dili

gence all over it, of white stone. He also adorned it with most sumptuous palaces and large edifices for containing the people; and, what was the greatest and most laborious work of all, he adorned it with a haven that was always free from the waves of the sea. Its largeness was not less than the Peiræus, at Athens, and had towards the city a double station for the ships. It was of excellent workmanship, which was the more remarkable, being built in a place that of itself was not suitable to such noble structures, but was perfected by materials from other places, at very great expense. The city is situate in Phœnicia, [strictly, Cæsarea was in Judea, not on the slip of sea-coast occupied by the people of Tyre and Sidon:] in the passage by sea to Egypt, between Joppa and Dora, which are lesser maritime cities, and not fit for havens, on account of the impetuous south winds that beat upon them, which rolling the sands that come from the sea against the shores, do not admit of ships lying in their station; hence the merchants are generally there forced to ride at their anchors in the sea itself. So Herod endeavored to rectify this inconvenience, and laid out such a compass towards the land, as might be sufficient for a haven, wherein the great ships might lie in safety. And this he effected by letting down vast stones of above fifty feet in length, not less than eighteen in breadth, and nine in depth, into twenty fathoms deep; and as some were less, so were others bigger than those dimensions. This mole, which he built by the seaside, was two hundred feet wide; the half of which was opposed to the current of the waves, so as to keep off those waves which were to break upon them; but the other half had upon it a wall, with several towers, the largest of which was named Drusus, and was a work of very great excellence, and had its name from Drusus, the son-in-law of Cæsar, who died young. There was also a great number of arches where the mariners dwelt. There was also before them a quay, which ran round the entire haven, and was a most agreeable walk to such as had a mind to that exercise. But the entrance or mouth of the port was made on the north quarter, on which side was the stillest of the winds of all in this place. And the basis of the whole circuit on the left hand, as you enter the port, supported a round turret, made very strong, to resist the greatest waves; while on the other hand, stood upright two vast stones joined together, and those each of them larger than the turret, which was over against them. Now there were edifices all along the circular haven, made of the most polished stone, with a certain elevation, whereon was erected a temple, that was seen a great way off by those who were sailing for that haven, and had in it two statues, the one of Rome and the other of Cæsar. The city itself was called Cæsarea [like several other cities, in compliment to the emperor,] and was also built of fine materials and was of a fine structure. Nay, the very subterranean vaults and cellars had no less of architecture bestowed on them, than had the building above ground. Some of these vaults carried things at even distances to the haven and to the sea; but one of them ran obliquely, and bound all the rest together, that both the rain and the filth of the citizens were carried off with ease, and the sea itself, upon the flux of the tide from without, came into the city, and washed it all clean. Herod also built therein a theatre of stone, and on the south quarter, behind the port, an amphitheatre also, capable of holding a vast number of men, and conveniently situated for a prospect to the sea. This city was thus finished in twelve years, at the expense of Herod."

Cæsarea, thus magnificently built and adorned, became the virtual capital of Judea under the Romans. It was Herod's royal residence, and the residence of the Roman governors. Herod founded games, to be celebrated every fifth year, in honor of Cæsar, and of the building of the place; and it was at one of the celebrations of these games, that his grandson, Herod Agrippa, died miserably, as recorded in the 12th chapter of the Acts of the Apostles. It was the scene of Paul's imprisonment, when he was rescued from the violence of the mob, and sent down from Jerusalem, out of the reach of the conspirators; and here he made his celebrated orations, the one in defence of himself, when he was accused of being "a pestilent fellow," and the other before King Agrippa, in explanation of his character and conduct. From hence also he embarked on his perilous voyage, after he had made his "appeal unto Cæsar."

Cæsarea subsisted with various fluctuations till after the Crusades. Dr. Clarke, who viewed Cæsarea from off the coast, says, "Perhaps there has not been in the history of the world an example of any city that in so short a space of time rose to such an extraordinary height of splendor as did this of Cæsarea, or that exhibits a more awful contrast to its former magnificence, by the present desolate appearance of its ruins. Its theatres, once resounding with the shouts of multitudes, echo no other sounds than the nightly cries of animals roaming for their prey. Of its gorgeous palaces and temples, enriched with the choicest works of art, and decorated with the most precious marbles, scarcely a trace can be discerned. Within the space of twelve years after laying the foundation, from an obscure fortress (called the tower of Strato, as it is said, from the Greek who founded it,) it became the most celebrated and flourishing city of all Syria."

Mr. Buckingham, in his "Travels in Palestine," gives a minute description of the ruins of Cæsarea, and says that they fully justify the description given by Josephus of its magnificence. Travelers still more recently speak of the utter desolation of the place. Captain Skinner, looking down from the promontory of Carmel, says, "The first place towards Jaffa is the modern village of Atlieb, the Castel Pelegrino of the Crusades, and the Dor of the Hebrews. Beyond that—its columns and buttresses, a confused mass, stretching into the waves, over which, from this distance even, the surf may be seen to break—is the celebrated city of Cæsarea."

POMPEY'S PILLAR.

SCARCELY any one of the monuments of antiquity is involved in so much mystery and uncertainty, or has afforded so wide a field for conjecture and the speculations of the scientific, as that known as Pompey's Pillar; yet it is not one of those relics that have only recently been brought to light, but, on the contrary, is so intrusively visible as to be descried for miles around; and is one of the first objects discerned by ships making this part of the coast of Egypt, which is everywhere very low. All

POMPEY'S PILLAR.

travelers agree that its present appellation is a misnomer; yet it is known that a monument of some kind was erected at Alexandria to the memory of Pompey, which was supposed to have been found in this remarkable column. Mr. Montague thinks it was erected to the honor of Vespasian. Savary calls it the Pillar of Severus. Clarke supposes it to have been dedicated to Hadrian, according to his reading of a half-effaced inscription in Greek on the west side of the base; while others trace the name of Diocletian in the same inscription. No mention occurring of it either in Strabo or Diodorus Siculus, we may safely infer that it did not exist at that period; and Denon supposes it to have been erected about the time of the Greek emperors or of the caliphs of Egypt, and dates its acquiring its present name in the fifteenth century. With regard to the inscription, we may observe, that it might have been added after the erection of the column.

Pompey's Pillar stands on a small eminence about midway between the walls of Alexandria and the shores of lake Mareotis, about three-quarters of a mile from either, and quite detached from any other building. It is of red granite; but the shaft, which is highly polished, appears to be of earlier date than the capital or pedestal, which have been made to correspond. It is of the Corinthian order; and while some have eulogized it as the finest specimen of that order, others have pronounced it to be in bad taste. The capital is of palm leaves, not indented. The column consists only of three pieces—the capital, the shaft and the base—and is poised on a centre stone of breccia, with hieroglyphics on it, less than a fourth of the dimensions of the pedestal of the column, and with the smaller end downward; from which circumstance the Arabs believe it to have been placed there by God. The earth about the foundation has been examined, probably in the hopes of finding treasure; and pieces of white marble (which is not found in Egypt) have been discovered connected to the breccia above mentioned. It is owing, probably, to this disturbance, that the pillar has an inclination of about seven inches to the south-west. This column has sustained some trifling injury at the hands of late visitors, who have indulged a puerile pleasure in possessing and giving to their friends small fragments of the stone, and is defaced by being daubed with names of persons, which would otherwise have slumbered unknown to all save in their own narrow sphere of action; practices which cannot be too highly censured, and which an enlightened mind would scorn to be guilty of. It is remarkable, that while the polish on the shaft is still perfect to the northward, corrosion has begun to affect the southern face, owing probably to the winds passing over the vast tracts of sand in that direction. The centre part of the cap stone has been hollowed out, forming a basin on the top; and pieces of iron still remaining in four holes, prove that this pillar was once ornamented with a figure, or some other trophy.

The operation of forming a rope ladder to ascend the column, has been performed several times of late years, and is very simple: a kite was flown, with a string to the tail, and, when directly over the pillar, it was dragged down, leaving the line by which it was flown across the capital. With this a rope, and afterwards a stout hawser, was drawn over; a man then ascended and placed two more parts of the hawser, all of which were pulled tight down to a twenty-four-pounder gun lying near the base, (which it was said Sir Sidney Smith attempted to plant on the top;) small spars were then lashed across, commencing from the bottom, and ascending each

as it was secured, till the whole was complete, when it resembled the rigging of a ship's lower masts. The mounting this solitary column required some nerve, even in seamen; but it was still more appalling to see the Turks, with their ample trowsers, venture the ascent. The view from this height is commanding, and highly interesting in the associations excited by gazing on the ruins of the city of the Ptolemies, lying beneath. A theodolite was planted there, and a round of terrestrial angles taken; but the tremulous motion of the column affected the quicksilver in the artificial horizon so much as to preclude the possibility of obtaining an observation for the latitude. The two readings of the inscription are as follows:

"To Diocletianus Augustus, most adorable Emperor, tutelar deity of Alexandria, Pontius, Prefect of Egypt, dedicates this."

"Posthumus, Prefect of Egypt, and the people of the metropolis, (honor,) the most revered Emperor, the protecting divinity of Alexandria, the divine Hadrian Augustus."

Of these readings, which certainly have but little resemblance, the former is considered the better. It will be recollected that some of the characters cannot be traced at all, and others but faintly; and the various ways of supplying the deficiencies, according to the ideas of the advocates of either, will account for the very wide difference that exists between them.

JOHN HANCOCK.

AMONG the remarkable men whose names will forever stand part and parcel of the Declaration of Independence, Hancock, whose bold signature first strikes the eye, was, perhaps, all things considered, one of the most remarkable. He put most at risk, so far as fortune and its appliances were concerned, for he was the richest man in the country. He inherited the business and fortune of a millionaire merchant uncle, and was the Abbot Lawrence of his day. When he was first elected to the provincial Legislature, Adams said to a friend, *Boston has done a wise thing to-day—she's made that young man's fortune her own;* and the prophecy was literally fulfilled, for it was all devoted to the public use.

The contrast between him and Adams was very great; Adams was poor, and held in great contempt the style and show of fortune. Hancock kept a magnificent equipage, such as is not known in America; his apparel was embroidered with gold and silver; he rode with six beautiful bays—he was fond of dancing, music, routs, parties, rich wine, dinners, and all that class of things, called elegant pleasures.

During the siege of Boston, General Washington consulted Congress as to the propriety of bombarding the town. Hancock was President, and after the reading of Washington's letter, a motion was made to go into Committee of the Whole, to enable Mr. Hancock to give his opinion, as he was deeply interested—all his property being in houses and real estate. He left the chair, and addressed the chairman as follows: "It is true, sir, that nearly all I have in the world is in the town of Boston; but if the expulsion of the British troops and the liberties of my country demand that they be burnt to ashes, issue the order, and let the *cannon blaze away.*"

SIR JOHN FRANKLIN.

IN 1819, Sir John Franklin, impressed by the discoveries of Hearne, Mackenzie and others, along the northern edge of this continent, undertook to trace the looked-for passage from the mouth of the Coppermine river, eastward, by the shore, towards the waters of Hudson's Bay. Proceeding from one of the forts of the Hudson's Bay Company, attended by Mr. Back and Dr. Richardson, since distinguished for their explorations, he traced the Coppermine to the ocean. Thence his party, with their boats and sledges, journeyed along the coast for 600 miles; till at last, having reached a point which they called Turnagain, and finding their provisions falling short, they quitted the sea and took up their march, of fifty days, along Hood's river, towards Fort Enterprise. In September, 1820, commenced the dreariest and most miserable of journeys. The expedition consisted of Franklin, Dr. Richardson, Mr. Hood, a young officer, Mr. Back, Hepburn, a sailor, ten Canadians with French names, and two Indians. The country was desolate, barren, and covered with snow. In a few days their pemmican failed, and their chief resource was a sort of moss called *tripe de roche*. Though they succeeded in shooting a few animals, their sufferings from hunger and cold soon became dreadful, as they slowly made their way through snow-drifts and ravines, and over torrents, in the direction of Point Lake. Franklin fainted from exhaustion and want of food. Mr. Back and three men, were hurried in advance toward Fort Enterprise, to hasten relief, while Franklin and the rest moved painfully on, at the rate of five or six miles a day. They were soon reduced to eat the leather of their old shoes, and two Canadians dropped down and perished in the snow. Dr. Richardson, Hepburn, and Michel, the Iroquois, remained with poor Mr. Hood under a tent, while Franklin and the rest pushed on towards the fort. When the latter reached it at last, after having left three more Canadians to perish in the track, they found it deserted and foodless, and, looking into each other's emaciated faces, burst into tears. Sending part of his men forward, Franklin was forced to stay at the fort, with three others, also unable to proceed—and he and they had no food but the soup of old bones picked up or dug from the ground. In a day or two they were joined by Richardson and Hepburn, who informed him that Michel, the Iroquois, had assassinated Mr. Hood, and that the doctor had shot him in turn. On the first of November, two Canadians died at the fort, and the survivors could not remove them. On the 7th, Indians came, bringing provisions, and they were all saved, when nearly at the last gasp. Certainly Sir John Franklin did not proceed on his last voyage to the Polar seas, uninured to the dreariest and most perilous chances of that terrible region.

While Franklin was suffering in this overland expedition, Lieutenant Parry was making his most successful voyage. In May, 1819, he proceeded with the Hecla and Griper to Lancaster Sound, where he proved the Croker Mountains to be as visionary as those of Hy Brasil, off the north-west coast of Ireland; and, advancing through the strait which he named after

Mr. Barrow, Secretary of the Admiralty, made the most pronounced discoveries of modern research in that region. He first saw and named Wellington Channel, Regent's Inlet, Bathurst's, Byam Martin's, Melville's, and other islands, now called the Parry Islands. He also saw and defined Bank's Land, in the south-western distance. These places have ever since been the great landmarks of northern research; no navigator has gone beyond them, and all subsequent discoveries have been made about them, and with reference to them. Traveling over Byam Martin's Island, Parry's officers discovered remains of Eskimo huts, and traces of oxen, hares, reindeer, and other creatures, proving that in the neighborhood of Polynya there is no want or difficulty of animal existence. This voyage was a fortunate one in every respect. Parry ran rapidly in, made his discoveries, wintered, and came out again in the open season. His next voyage, in 1821, with the Fury and Hecla, was to the lower waters—those of Hudson's Bay; and he spent the winter of that year in Fox's Channel. He passed two winters in the north, and explored Melville's Peninsula. In 1823, Captain Clavering conveyed Captain Sabine to Spitzbergen and Greenland, to make experiments determining the configuration of the earth. Lyons proceeded in 1824, with the intention of examining Melville's Peninsula, and going thence, if possible, to Franklin's Point Turnagain, on the American coast. But the expedition was so shaken about and distressed, that it was forced to return.

In the spring of 1824, Parry, with the ships Hecla and Fury, made his third northern voyage. He went into Barrow's Straits, and wintered at Port Bowen, on Regent's Inlet. Next year he proceeded westward, and examined the coast of North Somerset. Here, on the eastern shore of the inlet, he was forced to leave the Fury and return home.

In 1826, Captain Franklin went down the river Mackenzie, and explored the coast to the westward, 374 miles. His party returned to England in October, 1827. In 1826, Captain Beechy sailed into the Pacific, and entered Behring's Straits. But he made no eastward progress.

Parry undertook his fourth voyage in 1827. He went to Spitzbergen, and, leaving his ship, proceeded with sledges, overland, towards the pole, which is about 600 miles from Hakluty's headland. But the attempt was fruitless. While he and his men were creeping up on boats and sledges, to between 82° and 83°, beyond which none have ventured, the ice they were on was moving slowly to the south, and their severe labor was all thrown away.

In 1829, Captain John Ross, who had suffered a good deal in reputation from the treacherous Croker Mountains, resolved to make another effort. As government would not encourage him, he was indebted for his outfit to Mr. Felix Booth, a London distiller, and subsequently a knight and lord mayor, who, in return for his liberality, has received an Arctic immortality—an enduring monument in icebergs—in those regions bearing the names Boothia, Felix, Lord Mayor, as the reader may see on glancing at the map. Indeed, he should do more than glance at it; for without it, any disquisition on the northern discoveries will make but a confused impression on his memory. Captain Ross went into Barrow's Straits, and entered Regent's Inlet. He visited the land on the west coast, and called it Boothia. He wintered there, and in 1831, his nephew, James C. Ross, planted the English flag on the magnetic pole, in latitude 70° 17′ north,

and 96° 46′ 44 west longitude, where the dip of the needle was nearly vertical. In April, 1832, finding his ship, the Victory, could not be extricated from the ice, Ross left it, and journeyed to the Fury beach for boats that were lying there. With these, after vast labor, he tried to get out of Regent's Inlet; but he was obliged to give up the attempt, and retrace his steps to the wreck of the Fury, where he passed his fourth winter, of 1832–'3. In August, 1833, he made one more vigorous effort to get out, and having passed in the boats through Barrow's Straits, he and his men were happily picked up, in Lancaster Sound, by the whaler Isabella, the captain's old ship of discovery. The people of England believed Ross and his crew had perished, and, in the midst of their doubts and regrets, the nation was surprised and rejoiced by the news of his rescue. He has retrieved everything, and the Croker Mountains were no longer remembered to his prejudice.

In 1833, Captain Back made a journey from the Hudson's Bay station to the Polar sea. He went eastward beyond Franklin's Point Turnagain, and traced the coast in the direction of Repulse Bay, a point within Hudson's waters. He returned in 1835, and sailed in 1836 up through Hudson's Straits, to try the chance of finding a way across the interval lying between his late land exploration on the west, and the bottom of Regent's Inlet. But the voyage was unsatisfactory. In 1836, Dease and Simpson went from a fort of the Hudson's Bay Company, along the Mackenzie to the Arctic coasts, and examined the latter, but with no remarkable result. In 1845, other expeditions were set on foot. One was that of Dr. John Rae, who proceeded from Fort Churchhill, on Hudson's Bay, in July, 1846, and, traveling arduously northward with boats and sledges, discovered Boothia to be a peninsula. The other expedition was that of Sir John Franklin.

From the foregoing it will be perceived that after the first voyage of Parry, all other progress was, so to speak, carried on within and below his extreme delineations. No one had ventured beyond Cape Walker, in the direction of Banks' Land, to the west and south of North Somerset, or gone beyond Parry's Islands to the north-west, or to the north, through Wellington Channel. Neither had any attempt been made from Baffin's Bay, above Lancaster Sound, to enter those remote waters said to flow round the pole. And, indeed, it was no wonder that the explorers preferred the more known and southerly latitudes of Repulse Bay, Boothia, Coronation Gulf, and Victoria Land, to the remoter solitudes of the more northern ways; while, at the same time, the narrowed space between the extreme of continental exploration from the west, and the coasts of Regent's Inlet and Hudson's Bay, very naturally led men to look for the passages in that direction.

Sir John Franklin was born at Spilsby, in Lincolnshire, in the year 1786. He entered the English navy in 1800, as midshipman. He served in the Polyphemus, and, as a middy on board, witnessed the battle of the Baltic before Copenhagen, where Nelson paid back the old Corsair compliments of Regnar Lodbrok. Young Franklin went afterwards with Captain Flinders on a voyage of discovery to the coasts of New Holland, and was shipwrecked on a coral reef in August, 1803. Sir John was early inured to those perils and privations which attended his course in life. He was signal midshipman on board the Bellerophon, in the sea-fight of Trafalgar,

in 1805, reading through the smoke the signs of battle, as they flew from mast to mast. In 1808, Lieutenant Franklin escorted the expatriated Braganzas—flying before Junot and the other French generals—from the Tagus to the Rio Janeiro. Again, in 1814, he was with Packenham at New Orleans, trying to get at Jackson behind the immortal mud parapets and sand-bags, (no cotton packs among them—we have Andrew's word for it,) and was wounded in the boat service while behaving spiritedly and well. In 1818, he commanded the Trent, and accompanied Buchan to the north. Next year he made that terrible overland journey to which we have briefly alluded. In 1825, he made another overland expedition towards the Polar sea, leaving England in great depressure of mind in consequence of his first wife's illness. This lady, daughter of Mr. Porden, architect, of London, died in less than a week after he had left England, carrying with him the flag she had given him to hoist on reaching the Polar sea. He was obliged, by the imperfect success of the expedition, to hoist it on Garry's Island, at the mouth of the Mackenzie river. He has left narratives of these two overland expeditions. In 1827, he was presented by the Geographical Society of Paris with a gold medal worth $250. In 1828, he married Jane, daughter of John Griffin, Esq., of London, and in 1829, Captain Franklin was knighted by George IV. He was actively employed in the Mediterranean in the war of Greek independence, and received for his services the order of the Redeemer of Greece. Sir John, if now alive, is in his 67th year.

Franklin left England on the 26th May, 1845, with the Erebus and Terror—two ominously-named ships, which had been originally built for purposes of bombardment, and had only just returned from the Antarctic exploration under Sir James C. Ross. Sir John was accompanied by Captain Fitzjames and Captain Crozier, and the squadron had a complement of 138 men. He was spoken by the whaler Enterprise, Captain Martin, in Baffin's Bay, on the 20th of July, and his ships were last seen on the 26th, (fastened to an iceberg in Melville Bay,) by Captain Dannett, of the whaler Prince of Wales. Franklin had—he himself stated—five years' provisions on board, and told Martin he could make them last seven years, if necessary, with the help of the game which he was sure of procuring.

When 1847 had passed away, without tidings from the absent voyagers, some anxiety began to be felt. After a time Sir John Ross expressed his belief that the expedition was frozen up to the southwest of Melville's Island. Sir Francis Beaufort, Sir W. E. Parry, Captain Beechy, Captain Sir John Richardson, and Captain Sir James C. Ross, were nearly of the same opinion, and thought that Franklin, if obliged to quit his ship, would try to make his way, by an unknown interval, to the Mackenzie or Coppermine, on the continent. Dr. McCormack and Captain Penny spoke of Wellington Channel and Jones' Sound; but the former authorities greatly relied, in forming their conclusions, on the orders of the Admiralty, which a British officer is strictly bound to respect. These orders were, that Sir John should endeavor, in the first instance, to proceed towards Behring's Straits, and in a southwesterly direction from Cape Walker, and the alternative, in case the way should be closed, was an attempt through the opening of Wellington Channel. In the spring of 1848, Sir James C. Ross was sent with the Enterprise and Investigator to Lancaster Sound. He found a barrier across Wellington Channel, and a vast quantity of ice in

Barrow's Straits. He wintered in the harbor of Port Leopold, where the straits, Regent's Inlet, Wellington Channel, and the western opening, made a cross, or sort of northern *Quatre Bras*. The winter was passed in southerly explorings. With Lieutenant McClintock, Sir James explored the west coast of North Somerset, and Lieutenant Robinson examined the western shore of Regent's Inlet beyond Fury Beach. Before quitting his quarters, Sir James built a house at Port Leopold, leaving there fuel and provisions for twelve months. He then made his way into Lancaster Sound, and, on the 5th of November, 1849, reported himself at the Admiralty, having missed the North Star, which had been sent out to him with instructions to attempt the passage through Wellington Channel.

In 1848, Sir John Richardson again proceeded from the Hudson Bay stations to the Arctic sea, and explored the coast between the mouth of the Mackenzie and the Coppermine, and also part of Wollaston's Land, in the hope of finding some trace of the missing expedition; but in vain. In the same year the Plover, Captain Moore, and the Herald, Captain Kellett, went up through Behring's Straits, with the purpose of intercepting Franklin's party, should it have passed through the archipelago southwest of Cape Walker. On this station the Plover has remained, coöperating with other ships, and sending out exploring parties occasionally. In 1850, Lieutenant Pullen, of the Plover, journeyed to the mouth of the Mackenzie, and so eastward to Point Bathurst, whence he attempted to go to Bank's Land—that unvisited land seen from the coasts of Parry's Islands. But he failed; and in 1851 he returned to the Mackenzie river.

The North Star, sent out in 1849 with instructions for Sir James C. Ross, wintered in Wolstenholme Sound, in Baffin's Bay, and returned to Spithead in September, 1850, after having seen in Lancaster Sound the large squadron sent in that year to look for the lost expedition. The movements of this squadron must be fresh in the minds of most of our readers. Captain Austin's ships, the Resolute and Assistance, with their tenders, went from England in May, 1850. In the same month, Mr. Grinnell's ships, the Advance and Rescue, under De Haven and Griffin, proceeded to the north. Captain Penny carried up his two ships, the Lady Franklin and the Sophia; the veteran, Sir John Ross, went in the Felix, and Captain Forsyth in the Prince Albert. In August all these ships were in Lancaster Sound and Barrow's Straits, or the adjoining waters. On the 13th of that month, Captain Ommaney—Austin's second in command—and Sir John Ross heard from Eskimos, in Barrow's Straits, that two ships were crushed off Cape Dudley Diggs, and the crews afterwards killed—in the winter of 1846—by the natives. But this report was owing to a misconception of the Eskimo language. On the 23d of August, Captain Ommaney, and, a few days later, Captain Penny, found traces of the missing squadron on Point Riley and Beechy Island, at the opening of Wellington Channel. These were a small guide-board attached to a boarding pike eight feet long, and bearing an index pointing the way to the ships, a wooden anvil block, some remnants of rope and clothes, several hundred empty meat cannisters, and above all, the graves of three men of the squadron: John Hartnell and William Baine, of the Erebus, and John Torrington, of the Terror. Three headstones, with inscriptions, marked these graves, and the dates were from January to April, 1846. Captain Austin's ships wintered southwest of Cornwallis Island. Several

officers on foot rounded the west end of Melville Island, in longitude 114° west, and saw land beyond the 116th meridian. The intermediate bays and passages were also explored. On the south of Barrow's Straits, Captain Ommaney, Lieutenant Osborne, Meecham and Browne—at a season when the cold was 70° below zero, and spirits froze in bottles—traced Cape Walker and the adjoining straits to within 180 miles of Victoria Land.

Captain Penny's ships explored part of Wellington Channel. He saw three blue openings to the west from that Channel—the north and east being closed with ice. He perceived a strong current running from the westward, and it was his opinion, and that of all who accompanied him, that the prevailing winds were from the northwest. He attempted to send a party in that direction, under Mr. Stuart, but it was stopped by the water, which could be seen stretching on to the horizon. Penny asserts there is a great amount of animal life in this region—four footed, feathery, and finny—walruses, seals, whales, bears, hares, foxes, wolves, reindeer herds, flocks of king and eider ducks, brent, geese, gulls, and other water-fowl. It should be observed that the walrus can exist but where there is open water, in which it may rise for air.

Captain Forsyth, in the Prince Albert, made a rapid run to the Arctic circle, and back to England, in the space of four months. He went through Lancaster Sound, and on to the Fury Beach, in Regent's Inlet. Finding great obstructions to any further progress westwardly, he went up Wellington Channel, and, returning quickly, brought home the news of the relics on Beechy Island. By this time the chief points in Lancaster Sound and Barrow's Straits had been examined, and also the farther end of Melville Island beyond Cape Walker, without revealing any traces of Sir John Franklin and his crews.

The American ships, so generously missioned by Mr. Grinnell on this fraternal errand, were caught in the ice in Lancaster Sound, borne up Wellington Channel, then back again, and out through Lancaster Sound into Baffin's Bay—a drift of 1060 miles during 267 days! Having at last extricated his ships, De Haven again proceeded to confront the deadly difficulties of the search, but was checked by the ice, and obliged reluctantly to return to New York in October, 1851.

While all these ships were exploring the Arctic labyrinth on the coast, the Enterprise and Investigator, commanded by Captains Collinson and McClure, were endeavoring to make their way from the west. They reached Behring's Straits in 1850, with the purpose of trying to approach Melville Island. They have not yet been able to carry out that object. Along with the Plover, they were still, when last heard from, laboring and lingering amidst those Arctic wildernesses they have already spent so much time in exploring, in the still deferred hope of meeting with the missing mariners.

After the return of the eastern squadron of 1850, public opinion underwent a change in respect of the unknown movements of Sir John Franklin; and it was believed, as it still is, that he must have gone up to the northwest, through Wellington Channel. He spent the winter of 1845–6 —as we now know—on Beechy Island, and also the succeeding summer, as has been concluded from the deep ruts left in the ground by sledges, and from small patches of garden ground, bordered with purple saxifrages and planted with native plants. Much astonishment has been expressed

that Franklin did not bury some record of his movements and intentions, and indicate where they may be looked for. Sir John Richardson, to account for this, says that, instead of burying one of those copper cylinders with which he was provided, Franklin, knowing there was no resort of natives to that place, would hang it conspicuously on a tree or a post, the sooner to meet the eyes of explorers. But Richardson says this would not preserve it, for bears and wolverines climb trees and posts, and tear down any packages that may be attached to them. A dépôt, carefully formed by Lieutenant Griffith, on Griffith Island, was entirely eaten by the bears, the tin cases proving a poor defence against their tusks. They also overthrew a sign-post, and bit off the end of the metal cylinder containing the record. Richardson, therefore, thinks that Sir John Franklin might have left a cylinder containing notices, attached to the sign-post which Penny found flat on the ground, or to some other object, and that the bears and wolverines might have pulled down and destroyed it.

Be this as it may, the search for Sir John Franklin has not ceased. In 1851, Dr. Rae was again sent from the Great Bear Lake, towards the sea, for the exploration of the coast and the shore of Wollaston Land. In the same year, Lady Franklin—more steadily hopeful than the Ithacan wife of old—sent the Prince Albert, Captain Kennedy, again into the Arctic circle. Meeting the returning American ships, Kennedy pushed on through Barrow's Straits, desiring, like Forsyth in the preceding year, to examine Regent's Inlet. But the ice was so thick he could not enter it. At Port Leopold he was separated, along with a small party, from his ship, and, drifting away on the ice, was recovered with difficulty. A floe of ice then bore the Prince Albert down the inlet, where, on the western shore, the voyagers wintered at Batty Bay. From this place Captain Kennedy and Mr. Ballot proceeded, on the 1st of April, with sledges, round Melville Bay, and following Brentford Bay to the west, discovered that it was a new channel, which they believed to be the looked-for passage. Passing round, they proceeded to Cape Walker, in North Somerset, and so eastward to Port Leopold, whence, after a journey of 1200 miles in two months, they reached the ship in Batty Bay. No trace of Franklin was found; but the Prince Albert brought home last October some interesting news, nevertheless. Passing up into Barrow's Straits, in August, 1852, Captain Kennedy reached Beechy Island on the 19th of that month, and there found Captain Pullen in the North Star, at Erebus Bay, who told him Sir Edward Belcher, in the Assistance, had started up Wellington Channel on the 14th, and Captain Kellett, of the Resolute, had gone westwardly to Melville Island, and the south of Perry's Islands, to deposit there provisions and other necessaries for Collinson and McClure's expedition, should it reach so far from Behring's Straits. Belcher's squadron had been sent from England in the spring of last year, Sir Edward's chief instructions being, to attempt the passage by Wellington Channel. In his absence, the North Star remained at Beechy Island as a dépôt.

Research seems to have taken the right track after all; and the failures of the last three years were necessary to indicate it. The world is anxiously waiting to hear the result of Sir Edward's bold voyage, favored as it has been by a season of great openness.

America, also, sends out one more expedition in search of the missing ships. Dr. E. R. Kane, in the Advance, goes up the Arctic circle. He

proposes to make the starting-point of his search Smith Sound, or some convenient station in the head waters of Baffin's Bay — over two hundred miles further to the north than Beechy Island. Thence, accompanied by a small party with a couple of sledges drawn by dogs, he will undertake an overland pilgrimage westward, in the direction of the Polar Basin. He expects the coöperation of the Danish authorities in removing any difficulties of the preparatory arrangements, and procuring the assistance of such Eskimos as he may need. Each sledge will carry an India-rubber boat on a basket of wicker-work. The doctor has carefully superintended the pemmican, the biscuit, the condensed milk, and dessicated vegetables, and all those gastronomic resources on which the intrepid little party must mainly rely. Hoping to reach the starting-place in the early season of navigation, he intends to follow his course of travel nearly upon a meridional line, which would, it is believed, lead him to the Polynya — a *mare liberum*, or such, comparatively speaking — within its formidable borderings of the thick-ribbed ice. Mr. Grinnell has again generously given his good ship, the Advance, fully equipped, for this chivalrous charity; and the doctor has had his enterprise encouraged by autograph letters from the venerable Baron Humboldt, the Nestor of science and philosophy, Sir Francis Beaufort, Colonel Sabine, Captains Parry, Ross, and other distinguished men.

OLD IRONSIDES.

ON the 19th August, 1812, the Constitution made a suspicious sail from the mast-head, a long way to leeward. This was in N. Lat. 41°, 41′, and W. Long. 55°, 48′, or less than 700 miles nearly east of Cape Cod. Having looked for his enemy in the vicinity of Halifax, without success, Hull was now on his way to go off Bermuda, with a similar purpose, when he fell in with this vessel. The strange sail was first seen at two P. M., and at three she was made out to be a ship, under short canvas, and close hauled, apparently waiting for the Constitution to come down to her. At half past three, the stranger was distinctly made out to be a frigate, and little doubt was entertained of his being an enemy.

The Constitution continued to run down, until near enough to take a good look at the strange sail, when she came by the wind, and began to clear for action. While lying in this situation, the enemy having his main-topsail aback, gallantly waiting for his adversary, Hull reconnoitered, and made up his mind that he had a first-class English frigate to deal with. The top-gallant sails were furled, and her flying jib and all of her light staysails stowed. A second reef was taken in all the topsails, the courses were hauled up, and the royal yards sent down. By this time the ship was clear and the drum beat to quarters, when the crew responded with three hearty cheers. After this the helm was put up, and the ship bore directly down upon the enemy. The Constitution had about a league to

run, before she could get alongside of the stranger. At five P. M., being then at long gun-shot, the Englishman showed three ensigns, in different parts of his vessel, and commenced firing at very long shot. After discharging the guns of one side, he would wear and fire those of the other. These manœuvres induced the Americans to yaw, to prevent being raked, though they fired but three or four guns in approaching. These evolutions, and the short sail carried, retarded the approach of the Constitution essentially, and she was near an hour in getting within a short range of her enemy. At six P. M., however, the Englishman bore up, and ran off with the wind on his larboard quarter, under his topsails and jib. The Constitution then set her main-topgallant-sail, to close. A few minutes later, the forward guns of the American ship, and the after guns of the English, bore, when each party commenced his fire, the two frigates being within a hundred yards of each other. As the Constitution had the most way on her, she drew gradually ahead, until she came fairly abeam. Just as the two ships were square with each other, the mizzen-mast of the stranger came down, over the starboard quarter. This, of course, caused the American frigate to draw ahead still faster, and in about fifteen minutes after she had begun to fire, she was so far forward, as to induce Hull to luff short round his enemy's bows, to rake him. After having fired three raking broadsides, the Constitution attempted to wear and resume her former course, parallel to that of the Guerriere, but owing to the loss of braces and other running-rigging, the Constitution wore so slowly that the bowsprit of the Guerriere passed diagonally over the quarter-deck of the Constitution, and finally dropped astern with her starboard bow against the Constitution's larboard or lee quarter gallery. This was an awkward position, and might have led to serious consequences, had not the enemy been pretty effectually threshed before it occurred. As it was, two or three of the Englishman's forward guns were discharged with effect into the stern and quarter of old Ironsides, so close as to set fire to the cabin. Hoffman, who was in command there, behaved admirably, extinguishing the fire and protecting his men with great spirit and coolness.

While this scene was in the course of being acted below, one still more serious occurred on the quarter-deck. Both parties called away boarders, as the ships came foul. All the English boarders and marines collected forward, while the Americans rushed aft. Morris, Aylwin, and Bush, (lieutenant of marines) were foremost among the Constitution's people. On the other hand, many of the English exhibited equal gallantry, and for a few moments the musketry did great execution. Lieutenant Morris was in the act of lashing some of the head-gear of the English frigate to the Constitution, when he was hit by a bullet in the body. Mr. Bush fell dead by a ball received in the forehead, and Mr. Aylwin was shot through the shoulder. Missiles were thrown by hand from ship to ship, but boarding was out of the question, on account of the sea, the distance between the bulwarks of the two frigates, and the force collected on the deck of each to repel such an attempt. However, several lives were lost and many brave men wounded, by the close and murderous fire of the musketry. The Constitution drew ahead and parted from her adversary, moving off on the same tack. As the two ships separated, the Englishman's fore and main mast both came by the board, leaving him wallowing in the sea and encumbered with wreck. Of course, this decided the affair, leaving Old

Ironsides effectually the victor, and affording her time to look to the security of her own spars, which were of the last moment to her, in a sea that would certainly be soon swarming with enemies.

Having hauled off a short distance, and rove new rigging, besides looking to the stoppers and other securities for the masts, Hull was ready to run down on his enemy, who still kept a jack flying on the stump of his mizzen mast. The Constitution accordingly wore ship, and coming close in on the enemy's weather bow, in a position to rake him, the jack came down, and the first English frigate that had done such a thing since the war of the Revolution, struck to an American. The prize proved to be the Guerriere, 38, a French-built ship, that had been taken by the English in the year ——, by the ———, Captain ———, and now commanded by Captain Dacres. The Guerriere was a fine vessel of her class, mounting on her gun-deck thirty eighteens, and nineteen carronades and chase guns on her quarter-deck and forecastle; or twenty-five guns in broadside. She is said, however, to have been pierced for twenty-seven guns in broadside, which was just the number now carried by the Constitution. Some explanation, nevertheless, becomes necessary, in order not to convey to the reader a false idea of the respective forces of these two ships. The gun-deck battery of the Constitution consisted then, as now, of thirty guns of the *bore* of twenty-four pounders. The shot, notwithstanding, owing to defective casting, often weighed less than twenty-two pounds. Now, a shot of the *size* of a twenty-four pound shot, that weighs less than ought to have been its weight in solid metal, is less efficient than one, even, that has the accurate proportions between its weight and its diameter. The elements of the momentum, the principle that controls the efficiency of a shot, are the same in both cases, though the momentum itself differs, on account of the greater resistance of the atmosphere to a large, than to a small shot. In the case of the guns of the Constitution, the influence of the diameter may not have amounted to much, especially in an action fought at such close quarters; though two pounds in the weight of a shot is a matter of some moment in naval warfare. The carronades of both ships were thirty-twos, alike. As the defective castings pertained to nearly, if not to quite all the American shot used at that time, the difference applied to carronade shot, as well as to those of the long guns, making the quarter-deck and forecastle batteries of the Guerriere, gun for gun, actually heavier than those of the Constitution.

Nevertheless, the Constitution was a vessel decidedly superior to her prize, in all and each of the elements of force. She was of more tonnage, had heavier spars, carried heavier metal, and had a larger crew. The inferiority of the Guerriere was most apparent, indeed, in the number of her crew, she having less than three hundred men at quarters, while our own ship had considerably more than four hundred. There is not much doubt, however, that three hundred men in the Constitution ought to have been able to contend with four hundred in the Guerriere, though, in that case, the conflict would have been nearer on an equality. It is no more than fair to mention, also, that while it would seem to be certain, that the Guerriere actually carried thirty guns on her gun-deck, her regular armament would have been only twenty-eight. She was somewhat longer than was usual for vessels of her class, and it has been asserted that two guns were mounted in her bridle-ports, to bring her by the head. These two

guns, it will be remembered, on the other hand, were of particular service to her, on account of the peculiar manner in which the battle was fought, the Constitution being so much on the bows of her adversary. Here, then, had Old Ironsides fairly beaten an English frigate in a yard-arm fight, leaving her opponent without an upright stick in her, except the stumps of masts, while she still carried every essential spar of her own in its place!

As Morris was wounded, Wadsworth had to attend to the duty of the ship, and George Campbell Read was sent to take possession of the prize. Dacres was wounded, but not so seriously that he could not walk, and he was transferred to the vessel of his captor, a boat having been sent to apprise Hull of the name of his prize, and the state of his prisoner. Hull was a man of few words, and totally without flourish, but kind-hearted and direct. As Dacres went up the side of the Constitution, Hull appeared in the gangway, extended an arm, and said, as if addressing an old friend—"Dacres, give me your hand—I know you are hurt." This was not Decatur's or Truxtun's mode of receiving a captive.

Not long after the Guerriere was taken possession of, a strange sail was seen, and the Constitution cleared for another action, precisely as she had begun to chase on a former occasion, as soon as her enemies ceased chasing her. On this occasion, the stranger hauled off on perceiving the Constitution, he being most probably a merchantman. That night and next day, the prisoners were removed from the prize, and orders were given to set her on fire. Hoffman was the officer employed on this duty, and he left the Guerriere in the last boat, about 3 o'clock in the succeeding afternoon. Shortly after, the ship blew up. Captain Dacres reported his loss in the action, at fifteen killed and sixty-three wounded; or a total of seventy-eight casualties. The Americans added one to this account. Captain Hull reported his loss at seven killed and seven wounded; or a total of fourteen casualties. Among the slain of the Guerriere, was her second lieutenant, and among her wounded, her captain, first lieutenant, master, etc. The Constitution lost her lieutenant of marines, the gallant Bush, and Morris was wounded, together with one other officer. Encumbered with so many prisoners, Hull now deemed it necessary to go into port. The ship had not received any material damage, but it was every way desirable to return home, for a short time at least. On reaching Boston, Hull gave up the ship, Bainbridge having had some time in his possession orders to join her. It was September 15th, however, before the latter officer hoisted his broad pennant on board Old Ironsides.

The Constitution had been made a favorite ship under Preble, but this brilliant success added immensely to her favor with the nation. From this moment she became dear to every American, and it would have caused great pain to the entire Republic, had she fallen into the hands of the enemy. Still, there was no intention to keep her out of harm's way, in order to nurse her up as a thing to boast of. On the contrary, to sea she was immediately ordered again, and to sea she went, as soon as she could be got ready.

Bainbridge was to have a squadron, consisting of his own ship, the Constitution 44, the Essex 32, Captain Porter, and the Hornet 18, Captain Lawrence. The first and last of these vessels were at Boston, while the Essex was in the Delaware. Giving the last two places of rendezvous at different ports, the Commodore sailed, with the Hornet in Company, Octo-

ber 26th, 1812. On this cruise there was necessarily some change of officers, in addition to that of commanders. Morris having been promoted, George Parker, of Virginia, was ordered to the ship as her first lieutenant. Aylwin had been promoted to a lieutenant, and was junior of the ship. G. Campbell Read was transferred to the United States, and Wadsworth to the Adams, as her first lieutenant. This made the list of lieutenants read as follows, viz.: Parker, Hoffman, Shubrick, Morgan, and Aylwin. Of these, all but the senior-lieutenant, had been in the ship since the commencement of the war.

The two ships were off St. Salvador, December 13th, having looked in vain for the Essex, at the appointed place of rendezvous. An English ship of war was lying in St. Salvador, and, in the expectation that she might be induced to come out and engage the Hornet, Bainbridge left the latter ship alone, off the harbor, and stood along the coast to the southward, on the 26th of the month. Three days later, when in lat. 13° 6′ S., and long. 31° W., the Constitution saw two strange sail, in shore, and to windward. The smallest of these vessels continued to stand in for the land, which was then distant from the Constitution rather more than thirty miles; while the other, much the larger vessel of the two, edged away to take a nearer look at Old Ironsides. The wind was far from fresh at E. N. E.

By 11 A. M., the Constitution's officers were satisfied that the ship to windward was an enemy's frigate, and being now nearer to the land than was desirable, in the event of a chase, the ship was taken to the southward and eastward, to draw the stranger off shore. At the same time, the royals were set, and the main-tack boarded, the stranger sailing the best, in the light wind that prevailed. At meridian each vessel showed her ensign; signals were also made on board each ship, but they proved to be mutually unintelligible. Some time after 1 P. M., the Constitution hauled up her mainsail, and furled her royals.

The action commenced about two. The English ship, which was afterwards ascertained to be the Java, was about a mile to windward of the Constitution, both vessels now heading to the southward and eastward, the Java being well on her antagonist's quarter. In this state of things, the Englishman had hauled down his ensign, though he kept a jack flying, and Old Ironsides threw a shot ahead of him, to induce him to show his colors. By some mistake, the order to fire this gun brought on a discharge of the Constitution's broadside, which was immediately returned. The Java going much the faster in the light wind which prevailed, she was soon so far ahead as to be able to attempt crossing the Constitution's bow. This induced Bainbridge to keep off and to wear, the Java coming round at the same time. Both vessels now headed to the westward. These changes brought the two ships much closer together, and within pistol-shot. The Java repeated the attempt to cross the Constitution's bow, but was again foiled by the latter ship wearing. Both vessels came round at the same time, with their heads again to the eastward. The Java forereached as usual, and with a view to keep her weatherly position, she attempted to tack, but missed stays. At the same time, the Constitution wore, having lost her wheel early in the action. Old Ironsides coming round the soonest, got an effective raking fire into her enemy.

Both ships now ran off free, wearing again, the English still to wind

ward, though greatly injured. At fifty-five minutes past two, finding his berth too hot, the Englishman attempted to run Old Ironsides aboard, actually getting his jib-boom into her mizzen-rigging. In this situation the good old craft punished her bold assailant very severely, nor did she let him get clear until the head of his bowsprit was shot away. Soon after, his foremast came down, and, in passing ahead, the two vessels ran so close together that the stump of the Englishman's bowsprit actually scraped over the Constitution's taffrail. In a moment the Constitution wore, and passing her enemy to leeward wore again. The Java keeping off, the two ships once more ranged fairly alongside of each other, during which time the Englishman's mizzen-mast came down, leaving nothing standing on board him but his main-mast, and of that, the yard was shot away in the slings.

By this time the Java's fire had ceased, and Bainbridge, supposing her to have submitted, boarded his main-tack, and passed out of the combat, luffing directly athwart his adversary's bows. Standing on, a short distance to windward, the Constitution came to the wind, and passed an hour in securing her masts, and reeving new running-rigging. At the end of that time, an ensign was seen flying on board the Java, when Bainbridge wore short round, and ran down directly across his enemy's forefoot. This evolution was sufficient, and before a gun was fired the English flag was lowered, for the second time, to Old Ironsides!

The prize was the Java, 38, Capt. Lambert, with a large number of supernumeraries in her, bound to the East Indies. Her commander was mortally wounded, but her lieutenant reported her loss twenty-two killed, and one hundred and two wounded. This was a very severe loss, though Bainbridge thinks it was considerably greater. He says her loss was certainly sixty killed, and one hundred and one wounded. It is probable that more were killed, or died early of their wounds, than were reported by the English, and that fewer were killed than Bainbridge supposed. The English say that the ship's company and supernumeraries amounted to three hundred and seventy-seven souls, while the Americans affirm that they found a muster-roll in the ship, that was made out several days after she had sailed, and which had on it considerably more than four hundred names. All this is of little moment, as three hundred and seventy-seven men were quite enough for such a ship, no one who understands vessels ever supposing that the Java was equal in force to the Constitution.

It was the manner in which Old Ironsides invariably did her work, that excited the admiration of the knowing. On this occasion she had shot out of her adversary every spar she had, (the mainmast coming down before she struck) while she herself could carry royals!

In her action with the Java, the good ship suffered more than she did in her previous engagements. She had nine killed and twenty-five wounded. Among the latter was Bainbridge himself, and Aylwin, the junior lieutenant, the same officer who was wounded in the combat with the Guerriere, died of hurts received in this battle. The ship herself was not much injured. Some of her spars were wounded, and a few shots struck her hull; but the great cause of surprise to the Americans was to know where all the enemy's shot had gone.

In consequence of the water being so smooth, the Java was not much injured below the water-line. She might very well have been taken into

port, but the experiment would have been hazardous on many accounts. She was without spars, far from America, the sea was covered with English cruisers, and the nearest countries were much under the control of English influence. Keeping all the circumstances in view, Bainbridge removed all his prisoners, and two or three days after the action, he ordered Hoffman to blow up this prize, too, and return to St. Salvador. Here he landed his prisoners, among whom were Lt. Gen. Hyslop, with his staff, and several supernumerary sea officers.

As Old Ironsides rejoined her consort, the Hornet, the utmost anxiety prevailed on board the latter vessel, on the subject of the result of the action. The vessel in company with the Java previously to the battle, was an American prize, which had stood on toward St. Salvador, and fallen into the hands of the Hornet, off the port. Her prize-crew, of course, related the fact, that the Java had left her to engage an American frigate, but could say nothing of the result. Lawrence had great confidence in Old Ironsides, but as he approached her, he kept everything ready for flight, should it be necessary. It could be seen that stoppers were on the standing rigging, and that the ship had been in a warm combat; but where was the prize? It was possible that the English had got hold of the good old craft, and had sent her in to decoy the Hornet under her guns. The signals read well, but the prize-crew of the ship retaken, gave marvellous accounts of the Java, and of her all-powerful, double-jointed crew, and so many men might have been thrown on board our ship, as to have swept her out of our grasp! This feeling prevailed on board the Hornet, until the vessels were near enough to distinguish countenances, when the number of well-known faces that appeared above the Constitution's hammock-cloths settled the matter. Hearty cheers soon proclaimed that it was a meeting between friends. As soon as Lawrence got on board the Constitution, he told Bainbridge that the English sloop-of-war, in the port, had hove short, and it was thought intended to come out that night. If such had been the plan, the arrival of Old Ironsides, with the crew of the Java as prisoners, was argument enough to cause it to be abandoned. Willing, however, to give Lawrence a chance, Bainbridge remained as short a time at St. Salvador as possible, sailing for home Jan. 6th, 1813, and reaching Boston Feb. 27th.

Old Ironsides carried the news of her own success. No one believed that the capture of an isolated ship, here and there, could have any great influence on the result of the war, in a mere material sense; England had too many frigates, and America too few, for such occurrences to conduce essentially to direct conquests, but indirectly they were of vast weight. The moral effect of Hull's victory cannot readily be estimated. Great it was, beyond all doubt, and here was a second success by the same ship, bringing the vessel itself into the account as *particeps gloriæ*. Until the return of the Constitution from this cruise, the Constellation had been the champion of the navy. Her two battles in the French war eclipsed anything else that had been done by any other vessel of her size then in existence, but the Constellation's exploits would not compare with those of Old Ironsides. The former ship had captured one *French* frigate, and beaten off another; but the Constitution had taken two *Englishmen!* The difference was essential, and considering all things, even the glorious little Enterprise, one of the most successful cruisers to the very last, that ever

floated, could scarce be thought to compete with Old Ironsides. Here was the war only seven months old, and in that brief space the eyes of the country were drawn on that ship, by the chase, worth a victory any day, and the combats with the Guerriere and the Java! Three such exploits in so short a time, were sufficient to give any ship a name, and the nation had not forgotten the achievements of Preble before Tripoli. It seemed to make no difference who commanded, the old barky was always successful; always in harm's way, and always getting out of the scrape with credit. Preble, Hull, or Bainbridge; each and all had been victorious on the decks of this staunch old ship. Jack began to think that if he wanted a victory and prize-money, he had only to ship on board Old Ironsides.

There was one singular exception to the rule, however, which it may be well to mention. One of the Hornet's lieutenants, Mr. Ballard, was anxious to share in the luck of Old Ironsides, after the capture of the Java, while Lawrence was willing to try the luck of John Shubrick, who had now been in the chase and the two battles, and an exchange was made off the port of St. Salvador. Both parties may be said to have succeeded, in a certain sense; for John Shubrick was in the Hornet, when she took the Peacock, and Ballard, by sticking to his new ship, subsequently shared in her honors.

A new commander was now given to the Constitution, in the person of Charles Stewart, Bainbridge being transferred to a ship of the line then building. Some other changes also took place among her superior officers.

When Stewart had got a new crew, and was ready to go out, it was already winter. The ship shaped her course for the West Indies, old cruising ground for both vessel and commander, passing along our own coast. In this cruise Old Ironsides had no action, though she came near engaging a frigate off the Mona Passage, which was afterwards ascertained to be La Pique, 36. The English vessel got off in the night, by running through the Mona passage. She captured a vessel of war, however, in the Pictou, a schooner of 14 guns. Following the coast, Capt. Stewart returned to Boston. As he reached the capes, he fell in with the Juno, 38, and Tenedos, 35, both under the orders of Capt. Upton, which vessels pushed him hard, chasing him into Marblehead. After remaining a short time in this port, the frigate went out and proceeded to Boston, giving the blockading force the slip.

December 17th, 1814, Ironsides went out again with Stewart, and substantially the same set of officers and men. She now went off Bermuda, thence viâ Madeira into the Bay of Biscay. England was now at peace with all the world but America. From the Bay of Biscay the old barky went off Lisbon to look for Englishmen, and came near chasing an English 74 up to the rock. This ship, the Elizabeth, hearing in Lisbon that the good craft was off the coast, came out immediately in quest of her, but the bird had flown. While off Lisbon, a large ship was run alongside of, in the night, and after some hailing, two or three shot were fired into her, to compel answers, when it was ascertained she was a Portuguese.

Defeated in his hopes of finding anything where he was, and quite aware of the imprudence of staying long in any one place, Feb. 20th, Stewart up helm and stood off southward and westward, for twenty or thirty leagues. At 1 P. M., of that very day, a stranger was made on

the larboard bow, and to leeward. The Constitution hauled up a little and made sail in chase. It was not long before another vessel was seen to leeward of the first, which, at 2 P. M., was made out to be a ship. All three vessels were now standing on the same tack, on bowlines, gradually nearing each other. At 4 P. M., the nearest of the strangers up helm and ran down to speak to his consort, which was the commanding vessel, as it appeared in the end. Seeing this, Old Ironsides squared away in chase, setting everything that would draw, alow and aloft. For an hour or more the two weathermost ships were thus running off, nearly dead before the wind, while the most leewardly vessel was luffing to close.

It may render the relation more clear if we at once say, that the two strangers proved to be the Cyane, 20, and Levant, 18, British vessels of war; the former mounting 34, and the latter 22 guns. The Cyane was commanded by Captain Falcon, and the Levant by the Hon. Captain Douglas, a son of Lord Douglas, who was the child that gave rise to the celebrated "Douglas cause," at the close of the last century.

At half-past five the two English ships were so near together that it was impossible to prevent a junction, and Old Ironsides, then rather more than a league distant from them, began to strip and clear for battle. A few minutes later, the Englishmen passed within hail of each other; soon after which they both hauled by the wind, with their heads to the northward, and shortened sail. It was evident they were clearing ship, and intended to fight. As Old Ironsides was traveling towards them all this time, they soon fancied themselves in a state to weather on her, and both, at the same instant, set their main courses, and made all other sail in a taut-bowline. But it would not do; the good old craft was too much in earnest to be outmanœuvered in this wise, but came down so fast that in a few minutes they hauled up their courses again, and formed in line, the commanding ship, or the Levant, leading. At 6 P. M., Stewart let the enemy see the stars and stripes for the first time. On this hint the English set their own ensigns, and, five minutes later, Ironsides ranged up abeam of the Cyane, distant about a cable's length, passing ahead with her sails lifting, until the three vessels lay about equi-distant from each other. In this masterly position the Constitution let fly her first broadside, receiving those of her enemies.

For about a quarter of an hour the firing was very warm and unremitted, but at the end of that time the enemy grew less active in his cannonading. Stewart now ordered his people to stand fast, and let the smoke rise from the surface of the water, in order to get a better view of the state of things to the leeward. In a very few minutes this was obtained, and it was found that the Levant lay directly under the frigate's lee, while the Cyane was luffing to cross her wake, if possible. Old Ironsides now let the ship abeam have all her guns, and then backed astern, as if plying in a tideway, and compelled the Cyane to keep off to avoid being raked. As it was, she got it abeam. The Levant was not idle, but, in her turn, she now luffed and tried to tack, in order to cross the frigate's forefoot, but the busy old craft was too nimble for her. Filling everything, Stewart shot ahead, forced the sloop of war to wear, under a raking broadside, in order to keep clear of him, and to run off to leeward to get out of the range of his shot. The Cyane, perceiving the state of things, wore ship, when the Constitution came round too, and so quick as to rake this adversary, as she

came by the wind. The Englishman came up as high as he could, and fired his broadside, but, finding Old Ironsides closing on his weather quarter, he hauled down his ensign. Hoffman immediately took possession of him. As soon as this was done, Stewart went to look for the Levant.

In running to leeward, Captain Douglas had no intention of abandoning his consort. He had found his berth too warm, and very wisely got out of it as fast as he could; but having repaired his most material damages, as well as he was able, he had hauled up to look for her.

He met the Constitution about nine, there having been an intermission in the combat, of some duration, in consequence of this separation. The Levant knew nothing of the fate of the Cyane, and her commander probably thought the Yankee was running away from her, when he thus met him. Each vessel brought the wind abeam, and they crossed each other, on opposite tracks, firing in passing. The Levant was satisfied this would never do, but up helm and tried to escape. Old Ironsides followed, firing her chase guns with great deliberation and effect. Captain Douglas soon saw that every shot struck him and raked him, and he came by the wind, and fired a gun to leeward, in token that he gave it up. Shubrick was sent to take possession.

This combat was remarkable for its brilliant manœuvering. It is seldom that one vessel can fight two, at the same time, without being raked. This Stewart did, however, not only escaping from all the attempts of the enemy to get this advantage over him, but actually raking both of his adversaries, each in his turn. Taking the evolutions all together, it would not be easy to find an action in which a ship was better handled. Nor did the enemy neglect his duty. Old Ironsides was several times hulled, and her loss was three killed and twelve wounded. The English loss is uncertain, no English report of the action having been made, and there being supernumeraries in each ship. Forty-two wounded were found in the two ships, and the slain have been variously computed at from thirty-five down to ten or twelve. No officer was hurt on board the Constitution. This action, it will be remembered, was fought in the night, though there was a moon for a part of the time.

Stewart went to Port Praya, with his prizes, arriving there on the 10th of March. In the mean time Ballard had been put in the Levant as prize-master, as due to his rank, and Shubrick went back to the frigate, acting as her first lieutenant.

A vessel was chartered at Port Praya, for a cartel, and about a hundred of the English prisoners were sent to fit her for sea. In this state of things, and the very day after the arrival of Old Ironsides at Port Praya, occurred one of the narrowest escapes from her enemies it was ever the good fortune of this lucky ship to run.

The weather was thick, more particularly near the water, where lay a bank of mist that could not be penetrated by the eye at any distance. A boat had just left the ship, with orders to tow the cartel off, and the duty of the vessel was in some measure at a stand. Shubrick, on whom the discharge of the executive duties of the vessel had fallen, in his new character of first lieutenant, was walking the quarter-deck, deeply ruminating on the business before him, when he heard an exclamation from one of the English midshipmen, who was aft on the taffrail. The lad had spoken to Captain Falcon, late of the Cyane, his words being, "Oh, Captain Falcon,

look at the large ship in the offing." So intent was Shubrick on his own ruminations, that these words might have passed unheeded for the moment but for the answer. "Hold your tongue, you little rascal," answered Captain Falcon, in a low voice. This completely aroused the lieutenant, who, walking aft, saw, over the bank of mist, the upper sails of a large ship, that was apparently beating up to gain the harbor. After taking a good look at the stranger, Shubrick went below, and reported the fact to the Captain. Stewart was shaving at the time, and without discontinuing the operation, he answered, coolly, "Very well, sir. It is an Indiaman, or it may be a frigate—call all hands and heave short, and we'll go out and see what she's made of." Shubrick ordered "all hands up anchor," called, and then went on deck to take another look at the stranger, while the men were tumbling up and manning the bars. He now saw the upper sails of two more large ships in the mist, above the bank, all three beating up for the roads. Captain Stewart was immediately informed of this, and without a moment's hesitation, he gave the order to "cut." It is probable that this prompt command saved the ship. A signal was made for the prizes to follow, and the duty went on in the most beautiful and cool manner. In fourteen minutes after the first ship was seen, and in ten after the order to cut was given, Old Ironsides was walking out of the roads under her topsails. Preparations of all sorts were made rapidly, and away all three of the ships went together, just clearing the shore, and passing at gun-shot to windward of the strangers, now known to be heavy vessels-of-war, though no one, as yet, had seen their hulls. They were thought to be two ships-of-the-line and a large frigate. As the Constitution cleared the land, she crossed topgallant yard, boarded her tacks, and set her stay-sails. No sooner were the Americans abeam of their enemies, than the latter tacked, and all six of the ships stood to the southward and eastward, carrying everything that would draw, with about ten knot-way on them.

As Ironsides drew into the offing, she cut adrift two boats that were towing astern. As yet no one had seen the hulls of the enemy, though there could be no mistake as to their character. The mist seemed to settle, however, in the offing, lying nearer to the water, and the air became a little clearer aloft. The vessel that was taken for a frigate, weathered on everything, her own consorts as well as on the American vessels. The English officers, prisoners in the Constitution, could not conceal their delight, and confidently predicted the capture of Old Ironsides, and the recapture of their own vessels. They announced the chasing ships to be the Leander 50, Sir George Collier; Newcastle 50, Lord George Stuart; and Acasta 40, Captain Kerr. The first two vessels were new ships on one deck, built expressly to overmatch the American 44's. The English prisoners were particularly confident "Kerr, in the Acasta," would overtake the Constitution, which vessel they fancied could not sail, from seeing her jog along at an easy rate, in company with her prizes. Stewart kept her traveling on the present occasion, and it was not quite so easy a thing to come up with her, as hope had induced the prisoners to believe. One of the English captains was so sanguine as to get into the quarter-gallery, and make signs to the weatherly frigate, inviting her to come on, and exclaiming, in the presence of American officers, "Captain Kerr, I envy you your glory this day." With Stewart himself, these gentlemen did not maintain much reserve, pretty plainly intimating that Old Ironsides had

not the speed necessary to get clear of the "British Phœnix," as they termed "Kerr, in the Acasta."

Whatever may have been the fact, as regards our own honest old craft, it is certain the prizes were in a bad way. The Cyane was a short ship, mounting twenty-two guns on one deck and twelve above, and of course was not very weatherly. Stewart saw that the frigate, or supposed frigate —for no one had yet seen the hull of an Englishman—was weathering on her fast, and he made a signal for her to tack. Hoffman went round immediately, and passed his most dangerous adversary a short gun-shot to windward, on contrary tacks. Not a ship of the enemy went about. The "British Phœnix" stood gallantly on, endeavoring to get into the wake of the Constitution, and the Cyane was soon lost sight of in the haze. No sooner had the mist shut in the enemy, than Hoffman went about again, and continued making short tacks to windward for twenty-four hours, when, giving the islands a good berth, he squared away for America, bringing his ship successfully into New York.

At half-past two, one of the English vessels was pretty well up, on the lee quarter of Ironsides. By this time the fog had packed on the water so low, that her officers could be seen standing on the hammock-cloths, though her ports were not yet visible. She fired, by division, and conjectures could be made concerning the extent of her batteries, by the flashes of her guns, as seen through the fog. The shot fell within a hundred yards of the Constitution, but did not rise again. After trying this experiment unsuccessfully, the firing ceased.

The Levant all this time was falling in astern, nearer and nearer to the weatherly frigate, or was getting into the very danger from which the Cyane had been relieved an hour or two before. Stewart made her signal to tack. Ballard went round immediately, but could not work off to windward, as Hoffman had just done; for seven minutes after he had got about, all three of the Englishmen tacked, by signal, and were on his heels. This compelled him to run back into the roads and anchor. The enemy stood in after the Levant, and opened a heavy fire on that ship. The prisoners ashore joined them, and added the guns of the battery to the attack. Of course Ballard submitted, but he had some relief for his mortification in losing his ship, in what passed with the boarding officer. "I presume I have the honor to receive the sword of Captain Biddle, of the U. S. ship Hornet," said that gentleman, when Ballard offered his sword. "You receive the sword of Lieutenant Ballard, of the Constitution, prize master of his Brittannic Majesty's late ship Levant," was the caustic reply.

Stewart crossed the ocean to Maranham, where he landed his prisoners, on parole, and shaped his course for home, going into Boston in the month of May. Peace was actually made when he took the Cyane and Levant, though the captures were legal, in the latitude and longitude in which they were made, under the provision of the treaty.

Thus terminated the services of Old Ironsides, in the third of the wars she has seen. In the short period of two years and nine months, she had fought three battles successfully, had captured five vessels-of-war, two of which were frigates, and one frigate-built, and had been three times hard pressed in chases, by squadrons of greatly superior force.

SUENO'S PILLAR.

SUENO'S PILLAR, of which the accompanying engraving gives a correct representation, is situated at a short distance from the town of Forres, in the county of Elgin. It is only a few yards off the road leading from Elgin to Inverness. It is admitted on all hands to be the most singular monument of the kind in Great Britain, perhaps in Europe. Many of the most distinguished antiquarians are indeed of opin ion that it has no parallel in any country, Egypt excepted. It is cut out of a large block of granite stone of the hardest kind to be found in Scot land. In height it measures twenty-five feet, and in breadth, near its base, nearly four feet. It is divided into seven departments. It is sculptured on both sides; but that which looks in an eastern direction is by far the most interesting, not only because it is more crowded with figures than the other, but because those figures are executed in such a manner as shows that those by whose instructions it was erected, regarded it as that which would chiefly perpetuate whatever occurrence it was intended to record. The highest department of the obelisk contains representations of nine horses, each having a rider, who is apparently rejoicing at the accomplish ment of some important object—most probably of some great victory which has been gained. The figures on this division of the stone are more defaced by time than those on the other divisions, but are still sufficiently distinct to prevent any mistake as to what they are. In the next department appear a number of men, all in a warlike attitude. Some of them are brandishing their weapons, while others, as if exulting at some joyful event, are represented as holding their shields on high. Others, again, are in the act of joining hands, either as if mutually congratulating each other, or as a pledge of reciprocal encouragement and assistance. In the center of the next line of figures appear two warriors, who seemingly are either making preparations for, or are already engaged in, single combat, while their respective friends are witnessing the conflict with the liveliest inter- est. Next, we have a group of figures, witnessing one of their number beheading, in cold blood, the prisoners who had been taken in war. Close by is a kind of canopy, which covers the heads of those who have been executed. This canopy is guarded by men, each bearing a halberd. A number of dead bodies are lying on one side. Next are trumpeters, blow- ing their trumpets, in testimony, no doubt, of the triumph which has been obtained by the parties, to commemorate whose deeds the monument was raised. In the next division we have a troop of horses put to flight by a band of infantry, whose first line are armed with bows and arrows, while those which follow are accoutered with swords and targets. In the next and last department of the stone, the horses seem to be seized by the con quering party, the riders are beheaded, and the head of the chief or leader is suspended, which is probably meant to denote the same degradation as if it were hung in chains. The other side of the obelisk is chiefly occupied with a large cross. Beneath it are two persons, evidently of great conse

quence. They are accompanied by a retinue of attendants, and embrace each other as if in the act of becoming reconciled together.

Such is a description of this very extraordinary monument. As to its origin, or the particular events it was intended to commemorate, we are unfortunately left in uncertainty. Every historian, every traveler, and indeed most of the antiquarians of Scotland, have all more or less turned their attention to the subject; but no two of them are agreed as to the purposes for which it was erected. Some suppose, from the circumstance of the cross being on the obverse side, that it was planted to commemorate the first establishment of Christianity in Scotland. This, however, is very unlikely; for, had such been its object, it is difficult to see what connection so many warlike figures could have had with it. Others maintain that it was raised in memory of the battle of Mortlach, which battle, having been gained by the Scots over the Danes, eventually led to the expulsion of the latter from the kingdom. This is also a very improbable hypothesis, the battle in question having been fought nearly twenty miles from the spot where the stone is erected. In fact, there is scarcely any event of national importance that occurred between the commencement of the tenth and the end of the twelfth centuries—for the date of the pillar is generally supposed to lie between those two periods—but has been supposed by some antiquarian or other, to have been the cause of its erection.

The hypothesis of the Rev. Charles Cordiner, a distinguished northern antiquarian of the last century, respecting the origin of this monument, appears to us the most probable. His opinion is, that it was raised to commemorate the defeat and expulsion from Scotland, by the Scots, of those Scandinavian adventurers mentioned in the "Annals of Torfans," who, joined by a number of chieftains from the opposite coast of Caithness, had, in the ninth century, established themselves at the neighboring promontory of Burghead;* and who, during the hundred and fifty years they kept possession of the place, committed the most serious depredations throughout the surrounding country. In support of his hypothesis, Mr. Cordiner reasons in this way:

"In their sanguine endeavors to extend their sway, and at the same time secure a more speedy retreat to their lines, when carrying off booty, or baffled in any attempt, the aid of cavalry was of essential, and almost indispensable importance, and naturally became the distinguishing characteristic of their forces.

"Of consequence, as it was the great object of Caledonian policy and valor to seize their horses, in order to defeat their enterprises, so when, at a fortunate period, they succeeded in totally routing the Scandinavian bands, and compelling them to leave their shores, if they wished to erect a conspicuous memorial of the event, the most striking article would be to exhibit the seizure of the horses, and the inflicting of a capital penalty on their riders; and this is done in the most conspicuous department of the column.

"It is moreover evident, from the concurring testimony of history and tradition, that part of the troops, and warlike adventurers, which had embarked in the grand expedition undertaken by Olaus, Prince of Norway,

* Burghead is the most northern point in Scotland to which the expedition of Agricola penetrated. The Romans there encamped, and continued in the place for a considerable time. The traces of their camp are still distinctly to be seen.

SUENO'S PILLAR.

about the year 1000, did reïnforce the garrison at Eccialsbacca, in the Burgh of Moray, and made some daring advances towards the subduing of the surrounding countries—and that, soon after that period, their repeated defeats induced them wholly to relinquish their settlement in that province.

"No event was therefore more likely to become a subject of national gratitude and honor, than those actions in which the princes of Norway and their military adherents were totally defeated, and which so fully paved the way for returning peace to smile over these harrassed and extensive territories. And, in consequence of the Scandinavian forces finally evacuating their posts, a treaty of amicable alliance might be formed between Malcolm and Canute, or Sueno, King of Norway; and the august figures on the base of the cross have been sculptured to express that important reconciliation—while the figures on the adjacent edge of the obelisk, which are joined hand in hand, and in attitudes of friendly communication, may allude to the new degrees of mutual confidence and security which took place after the feuds were settled that are represented on the front of the column."

The traditions of the country are certainly more in favor of this view of the matter than of any other hypothesis which has been advanced. The very name, indeed, given to the pillar, viz: "Sueno's Stone," which it has retained from time immemorial, shows that the opinion of the peasantry in the district always has been, that the Norwegian monarch must have been, in some way or other, connected with its erection.

PERPETUAL FIRE OF BAKU.

ON the Caspian Sea is the little promontory of Absheron, one of the most singular regions in the world. It is situated in Georgia, and was once considered a part of Asia; but since it has become a province of Russia, it has been reckoned as forming a portion of Europe. The surface of the promontory is barren, almost destitute of water, and utterly bare of trees. Its soil is saturated with naphtha, a very inflammable bituminous oil, which in some parts rises to the surface of the earth spontaneously, and may be found by digging almost everywhere. In many places enormous quantities of gas, similar in nature to our coal or oil gas, issue from orifices in the earth; this gas the inhabitants employ to light their houses, by conducting it through tubes, similar in principle to our gas-pipes, though more clumsy in construction. They use it also as fuel to dress their food, to warm their dwellings, and for many other purposes. The centre of action of this fiery matter is near the town of Baku, the chief place in the territory.

The ancient Persians were worshipers of fire: they adored the sun as its source, and in his absence they kept up perpetual fires as his representative. The advance of the Mohammedan religion extinguished, in a great measure, the faith of the fire worshipers; but some remains of the ancient

believers are still found scattered in Persia, and many of their body have been long settled in India, particularly at Bombay, where they constitute a very respectable and influential portion of the population. The perpetual fire of Baku would naturally be an object of attraction to these people; and we accordingly find that they have, from a remote period, had an establishment there. They have enclosed with a high wall a spot of ground, from which a vast quantity of gas issues, which they always keep burning. This place has been described by several travelers, the most recent of whom, a Russian, whose journal was published in 1833, arrived on the spot by night. "We saw the flame," he says, "at a considerable distance before our arrival. It was a singular spectacle; four principal jets of flame were first visible, and as we got nearer, a considerable number of smaller ones began to show themselves springing from the ground. The four jets rose to a great height, and illuminated all the surrounding country, which is barren and desert. At last we saw a high wall of white stone, above which rose four great tubes like chimneys; from these tubes issued the columns of flame we had first seen. We thought ourselves in the neighborhood of a palace of fairies."

Nothing is known of the state of this place in very remote times; but it is described by the Arabian author Massudi, who wrote 900 years ago. He speaks of a mine of white naphtha at Baku, from which a column of flame rises to a great height, visible on every side at the distance of 100 farsangs. As one farsang, on the lowest computation, must be much more than a mile, and probably three or four, the Oriental style of exaggeration is evident in this estimate, as it is in what follows, unless the state of things be greatly altered: "It makes a noise like thunder, and throws up inflamed masses of rock beyond the reach of sight."

We are not aware of any European writer who has mentioned this place earlier than the Russian traveler Alexander Nikitin, who saw it on his way to India in 1470; and he merely says that he saw at Baku the fire which burns eternally.

The Fire-worshipers at Baku generally reside at that unhealthy spot a longer or shorter time, according to the fervor of their faith. The shortest residence is five years; many stay there eight; and a very few, who are considered in the light of saints, remain there until death. As the Russian writer calls them Hindus, they are probably all from India. They live solely on vegetables, cultivated by their own hands, and each man dresses and eats his food alone in his own cell. Their maintenance is derived chiefly from the charity of their fellow-worshipers, one of whom, named Otumd, now resident at Astrakhan, furnishes the greatest portion. The owners of vessels navigating the Caspian Sea also frequently send them considerable presents, as a sort of payment for the benefit received from the fire maintained in the four lofty chimneys before-mentioned, which constitutes an excellent lighthouse.

Our traveler describes the appearance of the interior of the inclosure as very imposing. "We were struck with astonishment," he says, "at the sight before us. We found ourselves in a vast square perfectly light, and in the midst we saw a building, from which issued four large and lofty tubes vomiting flame. The light from this fire is not less surprising to strangers than it is dazzling. The cells of the Hindus are placed all round the walls. . . . The Hindus, with no other covering than a girdle and a

turban, came out of their cells. The dark color of their skin, their loose hair (for as many of them had no turban, it hung at full length in disorder,) and the leanness of their bodies, which showed nothing but bones, produced on us very singular sensations. The first who accosted us introduced us into his cell: the only furniture was a miserable carpet and two pitchers; but a beautiful rose-bush stood outside the door. . . . . The cells were mostly small; flames were spouting out in nearly all of them, either directly from holes in the floor, or from clay tubes driven into the ground, which answer the purpose of candles."

In the midst of the enclosure is the place where these people burn their dead. It is a cave dug in the earth, about six feet square and three feet deep, and is covered with broad flat stones. This vault, like every other opening made in the ground, is always filled with gas. When a Fire-worshiper dies, the survivors smear his body with butter, and place it over the vault: they then set fire to the gas, which comes through the interstices between the stones, and the body is thus consumed. They afterwards carefully gather up all the ashes which have fallen through into the vault, and throw them to the winds. Thus ends the ceremony.

The gas is evidently of a similar nature to what we use, though, as it is said to be without smell, and to have no effect on the breath, it is probably purer than that which our establishments produce. It flame is of a yellowish white, and very brilliant. This shows that it cannot be pure hydrogen, which burns with a faint blue flame. The heat it gives out in burning is very great, sufficient to calcine lime; and it is largely used for this purpose by the people of the country. When mixed with common air, it becomes explosive. The first discovery of this property was unlucky for the poor Fire-worshipers; it was made by one of them who happened to raise his torch near the ceiling of his cell, where the gas rises in consequence of its levity. It exploded, a portion of the building was thrown to the ground, and several persons were severely wounded. Since that time they have been very cautious about lifting up a light in their cells, and they ran away terribly alarmed at seeing the Russian traveler do so. But they are very willing to perform the experiment at any time for the amusement of strangers, at some distance from their dwellings. The place they choose for this object is the well whence they get water. They usually keep this well open, to allow the gas to escape; but when they cover it, a sufficient quantity is evolved in half an hour to produce an explosive mixture with the air that was previously in it. When this is effected, a person takes off the cover of the well and throws into it a handful of lighted straw. The explosion which follows is said to be terrific, which may be easily imagined, the well being 100 feet deep.

Many theories have been formed to account for the vast development of gas at Baku; the most probable seems to be, that the naphtha which abounds in and beneath the soil is decomposed by some internal fire. That there is such a fire at no great distance from the surface, there can be no question. There are a great many hot springs, and in some crevices of the calcareous rock near the perpetual fire the heat felt is so great that it is impossible to keep the hand there. The whole territory, as well as some of the islands in the neighborhood, are constantly subject to mud volcanoes. On one of those islands, named Svinoi Ostrov (Isle of Pigs,) not Sviatoi Ostrov (Holy Island,) as in some maps, Mr Vatsenko, Russian consul at

the court of Persia, was wrecked in 1826. The island, he says, is quite covered with volcanoes of mud; they are little heaps or swellings in the tenacious soil, which rise gradually with a peculiar noise to the height of two or three feet; they then burst like bubbles, water is thrown out, and their sides fall in. Outside they look like moist clay, and inside they have the appearance of burnt bricks: naphtha begins to flow out of the opening as soon as the water has ceased spouting. When one heap has disappeared, another rises near it, but not in the same place, and in this manner the whole island is covered; it has the appearance of an immense field grubbed up by pigs, which has induced the Russians to give it the name it bears. The whole of the surface is soft, and imbibes water like a sponge; after a shower of rain, it is a complete marsh, which will not bear a foot upon it.

The volcanoes of the Continent are much larger, and more worthy the name than those little elevations on Svinoi Ostrov. They have been frequently described, and Kœmpfer has given a strange drawing of one in his "Amœnitates Exoticæ." They have occasionally thrown out large stones and flame as well as water, which may account for Massudi's description.

The chief riches of the country consist in its naphtha. This useful bituminous oil is of two sorts, black and white. The latter is the most valuable, and it is also much rarer than the other; it is found only at one place, about a mile from the village of Sarakhan, where it is gathered in sixteen wells or pits. Of the black sort, the number of wells worked in 1833 was 109. Notwithstanding its name, this is by no means all black; it varies in quality from a coarse pitchy substance, which can be used for little better than calking ships, to a clear greenish oil, which serves admirably for lamps. The earth and sand in the neighborhood of the wells is so thoroughly impregnated with naphtha, that it forms an excellent fuel, and is used exactly like our coal; when it is found in large slabs, it is used like slates or tiles for roofing houses, for which purpose it is admirably fitted by its toughness and impermeability.

The naphtha is drawn from the wells, which vary from one to fifteen fathoms in depth, by means of buckets and windlasses, which are moved by men or horses. It is almost invariably found mingled with water, from which it is separated by being thrown into large ditches constructed near the wells, in which it is allowed to stand until the water by its superior specific gravity falls to the bottom. The naphtha is then gathered up in flat wooden scoops, and poured into large sheepskin bottles, which are then deposited in cellars well lined with cement, until they are wanted for exportation or home consumption.

The production of black naphtha is computed to be about nine millions of pounds per annum, while that of the white sort is under thirty thousand pounds. The quantity gathered in warm weather is much larger than what is produced in cold weather; it is also increased when the wind is southerly, and decreased if it blows from the north; and it is worthy of remark that the same weather and winds respectively augment and lessen the evolution of gas. It is a curious fact that unless the wells be frequently emptied, they cease altogether to be productive, and that a cessation of even two or three days in working them causes a sensible diminution; although in such cases a few days' regular work will restore the original

productiveness. May not the cause of this be that the naphtha, if allowed to remain in the well, will line the walls with a sort of varnish, and in this manner close up the pores, through which the filtration of a further supply would otherwise be effected?

The naphtha wells are exclusively worked by the people of Balakhani, a village of 792 inhabitants, of whom 344 only are males, an inferiority of number which may be caused by the unwholesomeness of their occupation. The whole of the white naphtha is exported to Astrakhan, where it sells at about three pence per pound. The greatest part of the black naphtha is exported to Persia, somewhat less than a million of pounds being retained in Georgia for domestic uses.

THE REPUBLIC OF SAN MARINO.

SAN MARINO is the only one left of the many republics into which Italy was once divided, and is the smallest independent state of Europe. A rude, craggy mountain, about eleven English miles to the south of Rimini, and a few hillocks scattered around the mountain's base, comprise the whole of this republican territory, which is nowhere six miles across. The entire population does not much exceed 7000 souls. It is thus described by an English traveler: In the course of my walk, the bold rock on which San Marino stands, its rugged outline dotted here and there by a church, a convent, or a tower, formed for a long time the most striking feature in the landscape. I entered the dominions of the old republic by crossing a small stream, and, after three miles of ascent, in some parts very steep, and in others running zig-zag along the face of the mountain, I reached the "Borgo," which is a small town containing about 600 inhabitants. About three-quarters of a mile further on, and much higher, I came to "La Citta," or the city, which is the seat of government, and the residence of the more distinguished members of this miniature commonwealth. It does not seem much larger than the Borgo, but it is cleaner and handsomer, and has some buildings of a considerable size and in a pretty good style of architecture. There is not a single shop or inn, as nothing is allowed to be sold in the city.

The view from this spot, which is more than 2000 feet above the level of the sea, is particularly fine, and one of the best points whence to enjoy it is the top of the prison. The town of Rimini, the Marechia, and the dark Adriatic sea, lay before me; and turning to the the West were the piled up Apennines, conspicuous among which, from the sugar-loaf form of the mountain it stands upon, was the celebrated fortress of San Leo. Descending from the prison top, I visited some horrid dungeons, many feet underground, and quite dark. These conveyed a disagreeable impression as to the character of the old republicans, but it was pleasant to learn, and honorable to their descendants, that these dungeons had not been used for many years, and that there was actually only one prisoner in the place,