

**CAVERNS.** There may be some times a difficulty in explaining the origin of those fissures and cavities which so frequently intersect strata, and are especially numerous in mountainous countries, and in limestone rocks. They may, however, be usually traced to the sinking or elevation of strata by volcanic forces, or to the action of water. Some singular theories have been proposed to account for the formation of caverns, and we remember one that assumes their elevation by the expansion of gases given off by dead bodies buried in the strata. Caverns generally consist of a series of galleries and apartments, to which the first open space is but the vestibule. Rivers take their rise in some caverns, and in others they are lost. But this is not the only proof of the existence of subterranean waters, for we are assured of the fact by the phenomena which attend the activity of the volcanic force, by springs and other appearances. It is stated by a traveller, that in some of the caverns of Norway, the roar of the subterranean torrents may be heard as they bound along their contracted channels, beneath the floor of their gloomy recesses. A rivulet flows through the Peak Cavern, in Derbyshire. The entrance to this beautiful cave is a deep depressed arch, 120 feet wide, and 40 feet high; the cave itself is about 800 yards in length. From some caverns that of Mount Eoto, near Turin, for example, an intensely cold wind proceeds and others give out malignant vapours. The roofs of some are covered with stalactites, pendent masses of calcareous matter, presenting singularly fantastic forms. The grotto of Antiparos, situated in an island of the same name, one of the Cyclades, has been long celebrated for the variety and beauty of the incrustations which cover its ceiling, walls, and floors.

**SPRINGS.**—Springs, which frequently give birth to rivers and lakes, are found in nearly all districts. There is no class of natural appearances that presents more varied and interesting phenomena, and few that more deserve the attention of the geographer. Springs which are constantly flowing, without any apparent diminution of quantity, are called perennial; others are called periodical springs. An intermittent spring is one that flows at fixed intervals, such as that of Como, in Italy, described by Pliny, which rises and falls every hour; and that at Colmars, in Provence, which rises eight times in an hour. There are also some spouting springs, such as those of Iceland, which rise to a great height, and the phenomenon is probably produced by the fall or pressure of the water contained in a reservoir at a considerable elevation above the aperture from which the water is thrown. Many springs are undoubtedly connected with the sea, for they rise and fall with it: this is the case with nearly all those in Greenland.

If we turn from modern to ancient records, still more remarkable statements in relation to springs will be discovered, but there are few of them that command belief. The Greeks whose warm and vivid imaginations gathered flowers of inexpressible beauty from every portion of nature, with which fancy wrought a garb to cover ignorance, were never weary of tracing the history of their fountains, and the deities who presided over them. There were some springs that caused death, some leprosy, and some gave the power of prophecy: oblivion was the result of tasting the waters of some, and the mystic stream of Arethusa gave beauty. The man who has devoted any time to the perusal of the writers of antiquity, and stored his mind with the fable and imagery which give life and energy to all their descriptions, can hardly fail, when he thinks of the natural appearances that prompted them, to recall to mind the impressions which the first perusal could not fail to produce.

No one theory is sufficient to account for all the singular appearances presented by springs, though it is probable that some one cause is more active than others, and may be the general agent, while others modify its results. Some persons have attributed springs to the passage of water from the sea along subterranean channels into elevated natural reservoirs. But as water cannot ascend above its level, this theory cannot account for any of those springs which are situated above the level of the ocean, and consequently the doctrine of capillary attraction has been called in to aid the hypothesis. It is well known that water will ascend small tubes and threads to a considerable height above its ordinary elevation, and it has been supposed that such forms may exist in the interior of the earth, and the water be thus raised above its level. But this theory cannot assist the speculator, because a liquid does not flow through a capillary tube, though it may be raised in it beyond the ordinary level. There is no doubt that many springs have their reservoirs at an immense depth below the surface of the ground from which the water is thrown; and it is more than possible that the water may be raised by the pressure of confined vapours, which struggling for enlargement, force it through the fissures connected with its reservoirs. Dr. Hutton attributes springs to the percolation of water through rocks into natural cisterns, from which it is discharged at a level lower than that of its collected volume. There are many perennial springs in mountainous regions, and there is, perhaps, no other theory than this that will account for them. The fall of rain, and the melting of snow upon the summits of

mountains, produce a considerable body of water, part of which penetrates the permeable strata, and is thrown again to the surface at a lower elevation along some fissure, or in the line of stratification.—*Wm. M. Higgins.*

## THE PEARL.

HALIFAX, SATURDAY, JULY 8, 1837.

**INNOCENT PLEASURES FOR THE PEOPLE.** (Continued.)—As a substitute for the acting theatre, Dr. Channing recommends public recitations of poetry and the Drama. The present depraved condition of the stage is such that its continuance is no longer to be desired—its measure of iniquity is full, and for the sake of the public morals, it is to be hoped, its days are numbered. But whatever objections may be urged against the modern theatre, the most rigid moralist can have none against the recitation of pieces in prose and verse. The following are the sober remarks of Dr. Channing on this interesting subject:

“I approach another subject, on which a greater variety of opinion exists than on the last, and that is the theatre. In its present state, the theatre deserves no encouragement. It is an accumulation of immoral influences. It has nourished intemperance and all vice. In saying this, I do not say that the amusement is, radically, essentially evil. I can conceive of a theatre, which would be the noblest of all amusements, and would take a high rank among the means of refining the taste and elevating the character of a people. The deep woes, the mighty and terrible passions, and the sublime emotions of genuine tragedy, are fitted to thrill us with human sympathies, with profound interest in our nature, with a consciousness of what man can do and dare and suffer, with an awed feeling of the fearful mysteries of life. The soul of a spectator is stirred from its depths; and the lethargy, in which so many live, is roused, at least for a time, to some intensity of thought and sensibility. The drama answers a high purpose, when it places us in the presence of the most solemn and striking events of human history, and lays bare to us the human heart in its most powerful, appalling, glorious workings. But how little does the theatre accomplish its end? How often is it disgraced by distortions of human nature, and still more disgraced by profaneness, indelicacy, low wit, such as no woman, worthy of the name, can bear without a blush, and no man can take pleasure in without self degradation. Is it possible that a Christian and a refined people can resort to theatres, where exhibitions of dancing are given fit only for brothels, and where the most licentious class in the community throng unconcealed to tempt and destroy? That the theatre should be suffered to exist in its present degradation is a reproach to the community. Were it to fall, a better drama might spring up in its place. In the meantime, is there not an amusement, having an affinity with the drama, which might be usefully introduced among us? I mean recitation. A work of genius, recited by a man of fine taste, enthusiasm, and powers of elocution, is a very pure and high gratification. Were this art cultivated and encouraged, great numbers, now insensible to the most beautiful compositions, might be waked up to their excellence and power. It is not easy to conceive of a more effectual way of spreading a refined taste, through a community. The drama, undoubtedly, appeals more strongly to the passions than recitation; but the latter brings out the meaning of the author more. Shakspeare, worthily recited, would be better understood than on the stage. Then, in recitation, we escape the weariness of listening to poor performers, who, after all, fill up most of the time at the theatre. Recitation, sufficiently varied, so as to include pieces of chaste wit, as well of pathos, beauty and sublimity, is adapted to our present intellectual progress, as much as the drama falls below it. Should this exhibition be introduced among us successfully, the result would be, that the power of recitation would be thus extensively called forth, and added to our social and domestic pleasures.”

In another part of his address, the Doctor throws out a hint that he is in favour of the formation of public walks and gardens for the healthy recreation of the people—“what we now waste,” he observes, “would furnish this city (Boston), in a course of years, with the chief attractions of Paris, with another Louvre, and with a Garden of Plants, where the gifted of all classes might have opportunity to cultivate the love of nature and art.” We are pleased to learn that the advocates of the temperance cause in England are taking a similar enlightened mode of enforcing their benevolent system. In a letter to Mr. E. C. Delavan, chairman of the executive committee of the American Temperance Union, Mr. Buckingham a member of the British parliament says—“I am happy to state that in the British House of Commons there is a gradually increasing feeling in favour of our views; so that I hope I shall be able this session, to carry through both houses, my bill for the formation of public walks and gardens for the healthy recreation of the labouring classes, and for the establishment of literary and scientific institutions in every town, to draw off, by counter-attractions of a healthy and

agreeable nature, the crowds that now nightly seek excitement in the public houses.” At a small expense might not a few beautiful and attractive walks be made in the suburbs of Halifax, and we think, to the benefit of the health and morals of the place.

By men of ascetic piety, all this true philosophy will be considered as the perversion of reason and the overthrow of religion. Accustomed to regard all amusement as subversive of the interests of christianity, the recommendation of their union by a minister of the gospel, will excite their supreme disgust. Infidels may have done harm to the simple and lovely religion of the Bible, but we verily believe, that all their efforts have not proved half as injurious, as the perverted representations of many professors of religion. According to these, from the moment you make choice of the service of God, you are debarred ever after of all worldly enjoyment, as they are pleased emphatically to designate it—your eyes must be closed to the beauties of creation—your ears stult to the melody of sound—the paths of literature must remain untrodden by you—all science and all learning must be renounced, while no further enjoyment must be expected from social intercourse with your species. No wonder that such gloomy notions of religion frighten the young and cause them to look upon it more with awe and terror, than with love and delight; for if these views be correct, religion is at war with nature, at war with reason, at war with all pleasure and enjoyment. But no this is not religion—she is exceeding fair—the bloom of health is on her cheek—beautiful drapery infolds her frame—she moves with alluring steps—in her hand she holds a radiant cup filled with nectar, and she kindly bids you drink and be happy for ever. But we shall allow the Doctor to plead his own cause, and with the subjoined extract we shall close these remarks, commending the whole of his address to the favourable notice of the reader—

“To some, perhaps to many, religion and amusement seem mutually hostile, and he who pleads for the one, may fall under suspicion of unfaithfulness to the other. But to fight against our nature, is not to serve the cause of piety or sound morals. God, who gave us our nature, who has constituted body and mind incapable of continued effort, who has implanted a strong desire for recreation after labor, who has made us for smiles much more than for tears, who has made laughter the most contagious of all sounds, whose Son hallowed a marriage feast by his presence and sympathy, who has sent the child fresh from his creating hand to develop its nature by active sports, and who has endowed both young and old with a keen susceptibility of enjoyment from wit and humor.—He, who has thus formed us, cannot have intended us for a dull, monotonous life, and cannot frown on pleasures which solace our fatigue and refresh our spirits for coming toils. It is not only possible to reconcile amusement with duty, but to make it the means of more animated exertion, more faithful attachments, more grateful piety. True religion is at once authoritative and benign. It calls us to suffer, to die, rather than to swerve a hair's breadth from what God enjoins as right and good; but teaches us, that it is right and good, in ordinary circumstances, to unite relaxation with toil, to accept God's gifts with cheerfulness, and to lighten the heart, in the intervals of exertion, social pleasures. A religion, giving dark views of God, and infusing superstitious fear of innocent enjoyment, instead of aiding sober habits, will, by making men sullen and sad, impair their moral force, and prepare them for intemperance as a refuge from depression or despair.”

**COMPETITION NOT OPPOSITION.**—We are sorry to perceive that our learned brother of the Acadian Recorder has managed to lose his temper, and along with it, of course, all his wonted blandness and amenity. He treats us rudely and wrongly, but as we think it is bad policy to get angry in print, we shall not follow his example. We know better the respect which is due to our readers than to deface the brilliancy of the Pearl, by any ebullition of rancorous feeling.

We have given great offence, it seems, in pronouncing send forth into the world a weekly periodical, and the head and front of our offending is that, we have no ‘leftful right’ to do so, as we have not been duly articulated the printing business. It matters not that we employ a regular printer, or that we have chosen ground in the field of literature not occupied by any other journal. The Recorder must have a fling at us, because we are not mechanics. In Great Britain and the United States, of course all the proprietors of newspapers, are printers, and we betide any luckless wight who is unfurnished with a diploma from the printing college, who may venture