

embracing all these topics, the constant topography of that hitherto terra incognita, when it has pleased a mysterious Providence to deprive mankind and the cause of science of the further benefit of his labors. He had, we believe, also collected a large and choice herbarium. We trust the materials for his work are still in the hands of some of his scientific friends in Charleston, who will not fail to give them to the world in some form. We believe that the present accomplished head of the War Department had intended, some years since, to have assisted in the publication of the work.

It was to pursue his researches, that he accompanied this expedition in the capacity of an Acting Surgeon. He had also accompanied Lieut. Powell as guide and surgeon in the expedition which left Key West in November, 1836, to examine the coast from Cape Florida to Charlotte Harbor.

It would seem as if Providence had willed, that not only Mars, but Science itself, should be frustrated in all attempts to penetrate and bring under her peaceful dominion the soil of that wayward Peninsula. Doctor Leitner doubtless knew more than any scientific gentleman living, of that section of Florida. He is cut off in the midst of his researches! Denied the privilege of advancing alone into the country for such innocent purposes, he attaches himself to the army. We cannot resist the temptation to repeat here the often quoted lines of Byron:

"Oh! what a noble heart was here undone,
When Science' self destroyed her favorite son!
Yes, she too much indulged thy fond pursuits,
She sowed the seeds, but Death reaped the fruit."

On the same soil have fallen many accomplished and heroic spirits in that protracted contest. No less than thirty officers of the army, the majority of whom were graduates of the Military Academy, have died or been killed there. Many of the latter were distinguished for their high civic as well as military virtues. The names of Thompson, Heileman, Gardiner, Bassinger, Mudge, Isard, Center, Adams, and many others, will long be remembered. Doctor Leitner's bravery had something of a kindred nature to that undaunted spirit with which he pursues any scientific object. We very much fear that he advanced himself beyond the humble post of a surgeon. It could hardly have been a stray bullet that struck him, for we learn "that his hospital steward was shot down beside him."

Those who have friends warring in that territory, often have their acutest sympathies awakened by these events. But it becomes us not to mourn too much for those who have died nobly at their posts on the field of battle.

In the case to which we have alluded, it is a source of peculiar grief that he should have thus early consigned his corse to the desert regions of that land which it had been the simple and earnest object of his life to explore and illustrate. If, indeed, the results of his labors are not saved, we fear that many years may elapse before the same scientific knowledge of that country may be acquired.

As a student, he possessed the best characteristics of the German scholars: enthusiastic, devoted to his particular branch of knowledge, wedded to science for his unalloyed love for it, and indefatigable in his exertions. O.

[For the New York American.]

CROTON AQUEDUCT.

Looking to the importance of the enterprise, as well as to the expenditure which, under any circumstances, must be incurred in its construction, it is somewhat remarkable that no notice is taken of the progress of the Croton Aqueduct by any of our public journals. About three years have elapsed since the project was formally approved by the votes of the Electors of this city, at a poll specially appointed for the purpose; but though little has, as yet, been done in the actual construction of the work, the estimated cost has been augmented from \$4,250,000—the sum for which the People voted—to \$7,877,466. It would now seem, that to prevent this amount from swelling still more, it is intended to deprive the work of all that would render it an ornament to the city and to the age, in which we live; while, by a course of experiments never before attempted, on a commensurate scale, the success of the whole plan will be jeopardized, and the Aqueduct, instead of subserving the many important objects to which it might incidentally contribute, be made permanently to destroy a portion of those advantages which, by nature, we derive from our insular position.

As neither the commissioners, nor the chief engineer, whom they have recently substituted in the room of the distinguished gentleman under whose directions the original surveys and estimates were made, enjoy such a reputation for an acquaintance with either the principles of science applicable to the business on which they are engaged, or for a practical knowledge of what has been elsewhere accomplished, as to preclude all criticism, it may not perhaps be entirely useless to notice, from time to time, the propositions of an extraordinary or unusual character, which are brought forward. By the by, when it is recollected that Gouverneur Morris, Dewitt Clinton, Simeon Dewitt, and John Rutherford, constituted the last analogous commission connected with the interests of our city—that for establishing the permanent avenues and streets—it certainly seems a little strange that, in a work of such a character as the Water Works, the Governor should have scrupulously excluded from the management every man whose general knowledge or previous pursuits could have been of avail, in enabling the Board to arrive at correct conclusions.

The subject, to which it is intended to direct the attention of the public, on this occasion, is the mode of crossing the Harlem River. The commissioners, though they admit the feasibility of both plans, and profess a willingness to be guided by the decision of the Common Council in the case, give the preference to syphons, connected with iron pipes, placed on a solid stone embankment over a continuous aqueduct or bridge, as recommended by Major Douglass.

The principal argument adduced in favor of the syphons, is that of economy. In the new statements, the high bridge, which is estimated by his predecessor at \$415,650, is placed by the present engineer at \$935,745, while he makes the crossing by pipes amount to \$426,027. How far reliance is to be placed on calculations varying so much from those for which the commissioners previously vouched—how great an allowance is to be made for exaggerations in the case of a plan which, as being favored by the former engineer, is now repudiated—or how far an unavoidable bias has induced deductions from the expense of the project now recommended, we shall not inquire. There is, however, one matter which seems to be lost sight of in the report. The graduation for the inclined planes required, on the plan of the pipes, will render necessary an additional expenditure in the masonry throughout the line, to the extent, according to the published statements, of \$381,000. Thus we find, that even on the score of cost, there is little to be gained by the new "experiment," and hold it, like the "experiments" in relation to the currency with which the commissioners' political friends have favored us, be abandoned, we cannot rectify our errors, without an alteration of the whole route. It is also to be remembered, that the stone of the most suitable quality can be obtained at the work itself, without any expense for transportation, and that by an immediate adoption of the measures proposed for opening the Harlem river: more than the cost of that undertaking may be saved in the facility of procuring the other materials required for the aqueduct. But was the difference of expenses great as is stated in the recent report to the Corporation, we presume that no one, who has visited those magnificent works which,

in the ancient capital of the world, after a lapse of two thousand years, still fulfil the original objects of their construction, and bear testimony to the wealth and science of Rome. No one, who has examined the more modern aqueducts of Lisbon or at Casata, could for an instant hesitate as to following these safe precedents, instead of substituting for the graceful arches and magnificent piers, in a work intended to last for ever, a material which even the advocates of the plan do not pretend will endure for more than fifty or a hundred years. In the one case, posterity will look on the aqueduct as a monument of the resources and elevated public spirit of our age, while, in the other, we shall feel ashamed and degraded in having brought under the notice of strangers, a work which must be constantly deteriorating, and which, though more expensive in the result, will be pointed out as an evidence of sordid parsimony. Indeed, there is no little ground for supposing that, in our soil, the iron will not last, without corroding, for more than four or five years, and this, we understand, is the experience of our Gas companies.

Besides, the principle of the syphon, however theoretically true, will not answer for large masses of water; and to attempt to carry a river through a series of syphons, if successful at all, would be attended with continued interruptions, and to all the consequences incident to the frequent repairs of the iron pipes. It is well known that the ancients were perfectly acquainted with the fact that water will rise to its level, and an instance of the inverted syphon is to be found at Lyons; yet in all their great works, they preferred and adopted the continuous aqueduct.

Nor are we to be deterred from the effort of emulating antiquity, on the present occasion, by any imaginary difficulties of construction. The long discursive remarks in the report as to the labor and skill required in making coffer-dams, and the impracticability of finding suitable foundations for the piers of a bridge in the Harlem river, are an insult to the mechanical ability of our people. The proposed aqueduct, or bridge, is only 118 feet above the level of mean-tide, while that at Casata is 178 feet high, the one at Lisbon 230 feet, and the aqueduct of Spoleto 300 feet. As to the construction of the piers in the river, it is not necessary to show what at Plymouth, and in other places in Europe, has been done in the ocean itself, but in the works executed by the United States in the Delaware, at Throg's Neck, and in the various breakwaters and fortifications on our coast, we have ample means of refuting the calumny against our countrymen, implied in the Report. In the objections drawn from the severity of our climate, and in the apprehensions suggested respecting frost, we again find the want of skill of those employed in the direction of the work used as an argument against the perfecting of the plan of its construction. We do not see how there can be any greater difficulty, if the proper hydraulic cement is used, in making the joints of the aqueduct impervious to water, than is found in Sweden or in Russia. The canals of Sweden are among the most prominent works of the kind in Europe, and we have never heard that any inconvenience was felt in the construction of the necessary aqueducts connected with them; nor are we aware that the wall of solid masonry, which forms the embankment of the Neva, in its passage through St. Petersburg, is affected by the severity of the long continued Russian winters.

If there be, on the ground of expediency, any doubt as to which plan should be preferred, let a reference be made to the really scientific men of the country—engineers who have engaged in works on an extended scale, and erected with a view to permanence,—and let not the fate of this enterprise be decided altogether by an application, to a work of a wholly different class, of principles acquired in the construction of the ephemeral embankments of canals, whose durability is not expected to extend beyond ten years. Of Col. Tolten's or Col. Thayer's opinion, the writer of this article knows nothing; but their judgment, whatever it might be, would carry with it that conviction, which could not be expected to follow the decisions of Mr. Stephen Allen, or of Mr. Saul Alley.

The present plan is also objectionable in not accomplishing what was anticipated from the original proposition. In the reports both of Major Douglass, who advocated the high bridge, and of Mr. Martineau, who first brought forward the system of syphons, and which reports were submitted to the people as part of the project, respecting the water-works to be voted on, a viaduct was distinctly contemplated. The former gentleman observes: "In summing up the estimates, I have used the amount set down for this structure as an aqueduct, notwithstanding the slight difference estimated in favor of the syphon. My impression is, that the greater simplicity and certainty of action, in an uninterrupted channel from the Croton to the distributing reservoir at Murray's Hill, will commend this arrangement to the commissioners and the community; and it has been suggested, also, that the interests of the public in this structure, as a bridge for connecting the heights of Harlem with those of Westchester, would more than counterbalance all differences of expense." Mr. Martineau remarks, that the embankment is estimated to be 30 feet broad on top, "in order that it may answer the twofold purpose of a roadway across the river, and foundation for inverted syphons." With these statements before them, and in full confidence that a viaduct or bridge was to form part of the plan of the commissioners, the land was appraised, and private contracts were entered into, for the sale of portions of what was required for the aqueduct. In these transactions, the benefits to accrue from a permanent communication, free of all toll, between Westchester and New York, were taken into consideration, as well by the appraisers as by the proprietors. The adoption of any project which would dispense with the viaduct, would of course (to say nothing of the other injuries which the embankment of the river would occasion) render necessary an entirely new valuation throughout the whole route.

The dispensing with a viaduct would necessarily subject, at no distant period, the city to an additional expense for a separate structure for that purpose. It is impossible that the miserable wooden bridges which now exist, can permanently serve as the medium of communication between New York and the adjacent country. It is hardly necessary to offer any arguments to show the importance of facilitating the intercourse between this metropolis and the region to which, as being immediately adjacent, it must look for those supplies which will not bear a long transportation; but it may be well to notice the truly ludicrous argument, that although the whole funds are derived from the city, and the benefit is to accrue to those who are taxed for the expenditure, the commissioners being appointed to make an aqueduct cannot also render it a viaduct. We have seen, from the reference to the reports of Major Douglass and Mr. Martineau, that there is no foundation in fact for this subterfuge; but were it otherwise, we should like to learn in what mode these strict constructionists have found an apology for expending nearly double the sum authorized by the vote of the People, when they hesitate in matters of detail of little comparative importance. The advantages of a viaduct, besides its serving for all time to come as a medium for travel and transportation, might be extended so as to connect with it a railroad. The graduation having already been made for the purpose of the water-works, no further expense would be requisite to render the Croton aqueduct an avenue, by means of which, at all seasons of the year, our city might not only be supplied with pure and wholesome water, but also, at a reasonable price, with those articles of provisions demanded by our increasing population.

To the plan of the syphons, as now suggested, there exists an insuperable objection in the injury, which it would permanently inflict, on the navigation of the Harlem river. The commissioners propose to carry an embankment of solid masonry across the whole river, except about 80 feet, damming up the entire channel and leaving the water to pass through a place where the river at high tide is now only four feet deep. This proposition, if carried into effect, would of course be fatal to any future effort for restoring to New York its insular position, and rendering available for the purposes of trade and residence the shores of the Harlem river, which, if proper measures are adopted, are destined, by the numerous mechanical and manufacturing establishments for which they would furnish the most appropriate sites, to contribute, in no slight degree, to the wealth and resources of our great emporium. This is not the occasion to point out

the value of the Harlem river, as affording the most suitable accommodations for our lake and canal craft, and which, after the enlargement of the Erie canal, will probably exceed, in the amount of tonnage, the whole foreign and coasting trade that now centres in our harbor.

It is strange, indeed, that a plan which involves the obstruction of the navigation of the Harlem River should be brought forward at the moment that the Corporation are about authorizing an appropriation for removing the present impediments to its free use. Neither the people of New York or Westchester can or ought to submit to a measure which tends perpetually to debar them of rights of which they have been too long deprived. There is even now a dock near the Fordham Bridge, for the repairs of which the town of Westchester last spring voted \$350, and which was used by sloops and other vessels before the revolutionary war. That the river has, in a great measure, ceased to serve the purposes of navigation, is to be ascribed altogether to the artificial difficulties interposed at Cole's Bridge and Macomb's Dam, and which result from these works not being constructed in the manner prescribed in the respective grants. Either the Harlem river is a navigable water, or it is not. If not navigable, the soil to the middle of it belongs to the owners on each side of it, and certainly has not been acquired for the Croton Aqueduct. If navigable, it cannot be obstructed by the Water Commissioners. Without attempting to show that any obstruction of a navigable stream is a violation of the right of all the citizens of the United States who are entitled to use it for the purposes of trade, it is sufficient to say that the Legislature have given no warrant to commissioners even to cross the Harlem river, except such as may be deduced by implication from the authority to bring the aqueduct from West Chester to New York. This authorization can carry with it no further privileges than those usually accorded for the construction of bridges over navigable streams, and which must be so built as not to interfere with the appropriate employment of the river for commerce. As the direct grant of the whole channel of the river by a State Legislature would be resisted as unconstitutional, most assuredly the people will not allow their privileges, as riparian proprietors, to be wrested from them by implication, in order to enable the Water Commissioners, in whose judgment they have no reason to place any extraordinary reliance, imperfectly to execute a work that can best be accomplished by preserving unimpaired all the advantages of our unrivalled local position.

SIGNERS OF THE DECLARATION OF INDEPENDENCE.—Of the fifty-six signers of the Declaration of Independence, it is stated that nine were born in Massachusetts; eight in Virginia; five in Maryland; four in Connecticut; four in New Jersey; four in Pennsylvania; four in South Carolina; three in New York; three in Delaware; two in Rhode Island; one in Maine; three in Ireland; two in England; two in Scotland, and one in Wales.

Twenty-one were attorneys; ten merchants; four physicians; three farmers; one clergyman; one printer; sixteen were men of fortune.

Eight were graduates of Harvard College; four of Yale; three of New Jersey; two of Philadelphia; two of William and Mary; three of Cambridge, England; two in Edinburgh; and one of St. Omers.

At the time of their deaths five were over ninety years of age; seven between eighty and ninety; eleven between seventy and eighty; twelve between sixty and seventy; eleven between fifty and sixty; seven between forty and fifty; one died at the age of twenty seven, and the age of two uncertain.

At the time of signing the declaration, the average of the members was forty four years.

They lived to the average age of more than sixty five years and ten months. The youngest member was Edward Rutledge, of South Carolina, who was in his twenty-seventh year. He lived to the age of fifty-one. The next youngest member was Thos. Lynch, of the same State, who was also in his twenty-seventh year. He was cast away at sea in the fall of 1776.

Benjamin Franklin was the oldest member. He was in his 71st year when he signed the declaration. He lived in 1790, and survived 16 of his younger brethren. Stephen Hopkins of Rhode Island, the next oldest member, was born in 1707 and died in 1785.

Charles Carroll attained the greatest age, dying in his 96th year. Wm. Ellery, of Rhode Island, died in his 91st year.

FROM FOREIGN JOURNALS.

LONGEVITY AMONG THE BRITISH PEERS.—There are twenty-one members of the House of Lords who have outlived fourscore years.

The Royal Exchange was first opened, with great ceremony, by Elizabeth, a maiden Queen, and will, in all human probability, be again opened, on its reconstruction, by another.

The great O'Connell was christened without the aristocratic Milesian prefix O', and was called to the bar, also, as plain Mr. O'Connell, but assumed it in order to pass for a person of patrician extraction.

In the library of Upsal are deposited the mysterious coffers left by Gustavus the Third. The period fixed by the royal will for opening the coffers falls this year, and it is expected that they will yield documents which will throw light upon the events of those times hitherto involved in impenetrable darkness.—[Nuremberg Correspondent.]

HOW TO ENJOY A NEWSPAPER.—Immediately on receipt of your paper, by post or otherwise, order your servant to spread out the whole sheet on a covered table, then pass a flat-iron moderately warm over it, and you have at once a neat, elegant, hot-pressed paper, fit for any drawing room, and as rich to the look and feeling as Bath post, and admirably adapted for binding.—[Provincial paper.]

We borrow from the Temps the following account of the classification of the present Chamber of Deputies, which is composed of 459 members, of whom it says there are 1 duke, 19 marquises, 32 counts, 9 viscounts, and 27 barons. The names of 75 are preceded by the Patrician particle de, 4 are Grand Crosses of the Legion of Honor, 15 grand officers, 32 commanders, 62 officers, and 171 chevaliers: 12 are of the order of July. Four deputies fill more than three Government appointments each, 50 fill three, 178 fill two, and 172 fill one such place. Only 55 are perfectly independent. Of the deputies who hold places, 183 receive salaries, and 211 are nominated by Government. Thus 394 are placemen, with or without salaries.

"If I were so unlucky," said an officer, "as to have a stupid son, I would certainly, by all means, make him a parson." A clergyman, who was in the company, calmly replied, "You think differently, sir, from your father."

CANNIBALISM.—At a recent meeting of the Royal Geographical Society, after some letters and papers on Australia had been read, Sir John Barrow said, that with reference to cannibalism, which had been alluded to in some of the papers read, in all his reading he had never met with a well authenticated case of that horrid crime, nor did he believe any such was upon record.

PRINCELY BENEVOLENCE.—The late Earl of Egremont distributed in acts of charity and benevolence, during the last sixty years, upwards of one million two hundred pounds sterling—or about twenty thousand pounds per annum.

[From Fraser's Magazine.]

ANNUALS.—It is hardly necessary to examine these books a second time by one—they all bear the same character, and are exactly like the "books of beauty," "flowers of loveliness," and so on, which appeared last year. A large weak plate, done in what we believe is called the stippé style of engraving, woman badly drawn, with enormous eyes—a tear, perhaps, upon each cheek—and an exceedingly low-cut dress—pats a greyhound, or weeps in to a flower-pot, or delivers a letter to a bandy-legged, curly-headed page. An immense train of white satin fills up one corner of the plate; an urn, a stone railing, a fountain, and a bunch of hollyhocks adorn the other; the picture is signed Sharpe, Paris, Cor. Gould, Corboux, Jenkins, Brown, as the case may be, and is entitled "The Pearl," "La Dolorosa," "La Bionda," "La Gage d'Amour," "The Forest," "The Ken Omega," "The Water-lily," or at one such name. Miss Landon, Miss Milford, or my Lady Blessington, writes a song upon the opposite page, about water-lily, chilly, sultry, shivering, beside a streamlet,