

glories and blessings of literature and the importance of encouraging that divine afflatus which we call genius, for the benefit of mankind, etc., for no odds how high they soar they become much like Mr. Boffin's secretary with the wooden leg, who professionally 'rose and fell,' and as a friend 'dropped into poetry.'

"However high they soar in the grand heroics of literary eloquence, professionally, as thrifty protectionists, they drop into filthy lucre. That is at the bottom of it as sure as we live, and in opposing the extension of this interdiction on the acquisition of knowledge by the common people by means of the newspapers, the periodicals, and the magazines of the day, I claim to be a better friend to the grand things which emanate from the human mind and a greater admirer of them than those who undertake to make money out of them by placing them out of the reach of the poor."

"It seems to me that there can be no excuse for carrying this restriction upon human knowledge so far as this bill would carry it. It seems to me that there is no reason assignable why the source of all our knowledge, why the very fountain of all our civilization and advancement, should be made more costly and more inaccessible to the great mass of our people."

"It was but a few short and momentous weeks since that this Senate, with my help, under the lead of the gallant and philanthropic and benevolent Senator from New Hampshire [Mr. Blair], passed a bill appropriating \$78,000,000 to educate the poor and ignorant children of this country and teach them how to read; and now this same Senate, under the lead of the same benevolent Senator, has just passed a bill increasing the price of books to those poor people and placing reading matter out of their reach. And so we go: a bundle of contradictions, with nothing but the natural and inherent and instinctive greatness of our people and of our country to prevent us from becoming supremely ridiculous in the eyes of the civilized world—and that remark is not copyrighted."

Senator Teller said: "I believe it [the bill] will have a tendency, not injurious to American literature particularly, but to increase the price of all literature in this country; and not believing there is any commensurate benefit for the injury the reading public will receive, I am opposed to the bill. I am in favor of limiting it to a short time, if it is to become a law, until we can see what its practical effect will be."

Senators Saulsbury and George spoke briefly to the same purport. The bill passed, 10 to 34. Absent, 32.

CITY FLOWERS.

The native of Central or South America who shall visit New York this summer may well pause in surprise as he comes up through the Bowling Green and looks into the little triangular park audaciously obtruding itself into this region of mercantile bustle and hurry. There, in the miniature pond, amid other aquatic plants of lesser dignity and importance, he will see the noble water lily, *Victoria regia*, its great leaves—sometimes they are as much as six feet across—floating in Croton water with as much thrift as in the waters of the Parana and Paraguay, and should he come at the right time, he may even see the beautiful blossom of white and pink. Indeed, it will likely enough be quite as much of a surprise to the merchants and factors thereabout, coming down to their offices some summer day, to discover that exotic fragrance has mastered the familiar odors of petroleum and pitch and ships' furnishings, for Superintendent Woolson, of the Central Park, says the perfume of this water lily is so strong that it will be perceptible two blocks distant. By means of a pipe under water and circling the pond, the water will be warmed, a thermostat enabling an attendant to keep its temperature between 70° and 80° F.

The beautiful moss pink is now a-bloom on the rocks of the Central Park, and in some places you can scarcely see its foliage because of the mass of flowerets. This is noticeably so at 79th Street, on the east drive; at Mount St. Vincent; at 110th Street and 7th Avenue.

The tulips, white, golden, yellow, and bright red, are in full bloom. There is a fine bed of them at the Fifth Avenue entrance, thousands of them in the beds about the Arsenal and Mount St. Vincent. Here also the rock cress, in full bloom, is busy decorating the rocks with white flowerets; their tiny heads following the sun from east to west, as if they feared to lose him. The English heather by the Ramble and the Bridle Path, on the west side, near 81st Street, is covered with its bell-shaped flowers of pink. Near the greenhouses the beautiful narcissus is in bloom; the double yellow and white ("Von Sion") and the small yellow trumpet variety. Then there is the grape hyacinth in blue, with its bell-shaped or globular flowers, not like the ordinary hyacinths, which are open and reflexed; the *Urularia grandiflora*, large, yellow, and drooping. In the middle of the little garden at the northern end of the propagating beds, a shrub magnolia, about three feet high, is covered with milk-white flowers, and near by is the *Magnolia Linnei*, with bright red flowers, while by the Ramble *Magnolia conspicua* and the *Magnolia soulangeria* are also in bloom, the flowers of the

first named being white and of the other pink and white.

The roses are budding, and soon the marigolds will be a-bloom, opening with clock-like regularity at nine o'clock in the morning and closing their petals when the big clock in the Arsenal tower strikes three. The beautiful amaryllis will reflect the bright crimson of the opening day, the sparkling dew in its stigma catching the ruby color of its petals and losing it again as it falls into the waiting tube, till, the sun hanging its red coat in the sky and going down below to rest, the sparkling waters are thrust up again into the stigma.

Ludwig Nobel.

The engineering profession has suffered a severe loss in the death of Mr. Ludwig Nobel, at Cannes. The son of a Swedish engineer, who invented and placed in the channels of Cronstadt the "infernal machines" which annoyed Sir Charles Napier so much, he received a practical training as engineer, and notwithstanding a temporary check experienced by the failure of his father, he managed by hard work and economy to recover in time the iron works his father had lost, and extended them to their present proportions at St. Petersburg. But it was less in his own profession than outside it that he was destined to achieve distinction, although it was his engineering capacity that equipped him for the revolution he accomplished in the oil trade. In this respect his career was a striking illustration of the influence a modern engineer can exercise upon a purely commercial pursuit. Quite by chance, in 1876, he was led by his brother, whom he had sent to the Caucasus in search of walnut wood for the stocks of the Berdan rifles he was manufacturing for the government, to invest a few thousands in a small Baku oil refinery. This failing to yield much profit, owing to the difficulties of transport, Mr. Ludwig Nobel applied himself seriously to solve some of them, and by degrees was drawn completely into the petroleum business. The innovations he introduced, in the shape of pipe lines, tank steamers, and tank cars for railways, not only in a few short years revolutionized the oil trade of Russia, but that of the whole of Europe; the elaborate system of transport in bulk he established, coupled with the copious supply of cheap oil, enabling Russian petroleum to penetrate to every town on the Continent, and even flood the more distant market of India. The enormous magnitude to which his undertaking rapidly expanded, until the few thousands he embarked in the business developed to a capital of three millions sterling, was told in these columns three years ago by Mr. Charles Marvin, whose "Petroleum Industry of Russia" contained in all engineering essentials the story of the Baku oil king's extraordinary career.

To-day the Nobel firm owns the largest oil refinery in the world, the largest fleet of tank steamers, thousands of oil trucks, and depots holding tens of millions of gallons of oil. That so much should have been achieved in a little more than ten years is a remarkable testimony to the power of organization Ludwig Nobel possessed to an eminent degree, while the wealth he amassed in a pursuit wherein merchants had either failed or made but a miserable income shows what may be achieved by the enterprising and skilled engineer in departments of trade conventionally supposed to belong to merchants only.—*Engineering.*

Dr. Emil Bessels.

At Charfreitag, Stuttgart, recently, this well known physician, naturalist, and Arctic explorer succumbed to heart failure, at the early age of forty.

Dr. Emil Bessels was born in 1847, at Heidelberg, and studied medicine and natural history first at the University of Jena and finally at that of his native city. At the instance of Petermann, the geographer, he embarked on his first expedition to the North Pole on board the steamship *Albert* in 1869, the purpose of the voyage being to explore the eastern frozen sea between Spitzbergen and Nova Zembla and to investigate Gillis Land. Only the first part of this project could be carried out, as the state of the ice made disembarkation on Gillis Land impossible; but the work effected was important. Hydrographic observations were made and a complete series of deep-sea soundings were taken, and for the first time the existence of the Gulf Stream east of Spitzbergen was demonstrated.

In 1871 Dr. Bessels was summoned to the United States to undertake the scientific direction of the North Pole expedition under Ch. Francis Hall. In pursuance of his researches he penetrated into the northern prolongation of Smith's Sound, and reached the 82° 26' of north latitude—a feat performed by no previous voyager. Unfortunately, the ship—the *Polaris*—foundered, carrying all his scientific treasure trove to the bottom. From the direction of the wave current and from the pieces of walnut wood borne upon it, he concluded that there was a northern connection of this arm of the sea with Behring's Straits. Besides his contributions to German journals and to the bulletins of the United States geological and geographical survey, Dr. Bessels wrote the first part ("Physical Observations") of the narrative of the voyage of the *Polaris*, a

work in three volumes, entitled "Scientific Results of the United States Arctic Expedition" (Washington, 1876), also published in German (Leipzig, 1878). After this he settled at Washington as secretary to the Smithsonian Institution, where a long and useful career seemed in store for him, when, on Christmas eve, 1885—a night of extraordinary cold—his house took fire, and the flames spread so rapidly that he had barely time to escape by letting himself down from the first floor in his nightshirt by means of a linen table cloth. He then caught a chill, from which he never quite recovered. This, and his grief at the loss of his precious library and scientific treasures, made a changed man of him. He came to Stuttgart—a place which had great attractions for him as the scene of early studies in the Royal Natural History Museum—and there for two years he worked at his favorite pursuits, and also at literature, till he had to take to bed, from which he never rose. He was found dead, having apparently passed away as suddenly as painlessly, leaving a blank in the medical and scientific circles of the Wurtemberg capital which will not soon be filled.—*Lancet.*

Michael Heilprin.

Michael Heilprin, well known as one of the principal editors of Appleton's Encyclopedia, died at his home in Summit, N. J., on May 10. He was born in Poland, in 1823, and was identified with Kossuth's movement for the freedom of Hungary, whither he had gone early in life. He came to this country in 1856. His work here was principally literary. In the case of the Encyclopedia, he was intrusted with the supervision of all the matter contributed. He was one of the early contributors to the *New York Nation*, and never severed his connection with it. He was one of its most voluminous contributors. He leaves two sons, Louis Heilprin, well known as a writer on chronology and history, and Angelo Heilprin, the well known geologist, whose works have been reviewed in these columns.

Damp Cellars.

The most prominent causes of damp cellars are:

1. Dampness permeating the walls.
2. Dampness from saturated soil appearing below the walls.
3. Dampness from imperfect plumbing.
4. Moist ground air permeating cellar bottom, forced in by air pressure.

The first is an evidence of either poor workmanship and material or imperfect drainage. Should it be the former, and discovered in time, a compulsory removal of the work is the best remedy. A good wall (stone is here understood) should have every space completely filled. Small, flat stones make the best work when carefully bonded and fitted. Look out for walls showing nothing but large flat stone on the outer faces, as such are often but dry concrete in the center. If the work has progressed too far to allow the wall to be taken down, the remedy is a thorough coating of cement on the outside—from grade to footing—backed by a careful drainage of the immediate vicinity. Great care is necessary to keep the surface water from the building on all sides. It will not suffice to keep it five, ten, or twenty feet away, and then allow it to pool, as the ground will absorb it, and if the strata should happen to incline in the direction of the cellar, conduct the moisture to the wall, where although perhaps not appearing in drops on the surface, still keeping the joints damp enough to affect the atmosphere and cause the mortar to decay.

Good, clean, yellow clay, well puddled and rammed around the walls, is an excellent protection, and one that should never be omitted.

Frequently, in neighborhoods thinly settled, where the sewage system is imperfect, or, rather, not completed, the ground becomes waterlogged, or so saturated with moisture as to cause any shallow excavation to collect water, and it will be noticed in such ground that after a rain all these depressions hold the water with great tenacity. In fact, the soil seems unable to absorb any more.

Cellars sunk in such ground will be damp at the foot of the wall, the moisture extending out on the cellar floor, while any small knoll, caused by uneven excavation, may be perfectly dry on top, and even, as has occurred in my practice, the clay opening in seams from contraction in drying, while but a few feet away the mud was three to six inches deep. This has been noticed even in a house situated on a small plateau with rapid drainage to all sides.—*Building Trades Journal.*

Garbage Burning.

A correspondent asks if some inexpensive plan be given for a practical family crematory for refuse vegetation, kitchen scraps, rubbish, etc., could not be constructed, into which refuse matter could be emptied as it accumulated, and thus have a way to prevent so much garbage lying in back alleys, sloop barrels, etc., where it is allowed to decay, with so much bad effect to cleanliness, health, and comfort. Here is a chance for the ingenious to study.