# Beientifie American.

# MISCELLANEOUS.

Vault Interments---Curious Facts.

During the years 1849 and 1850, Mr. Waller Lewis had been employed, under the direction of the General Board of Health, in London, in making chemical examinations of the gases resulting from the decomposition of bodies in the vaults and catacombs. An article written by him, in the London Chemist, of last month, gives some account of his researches, which are the more interesting, as the results are contrary to opinions generally entertained even by chemists.

He visited the vaults of the principal churches of London, noted the external appearance of more than 32,000 coffins and the contents of nearly a hundred, and several times tested or analysed the atmosphere of the vaults.

In no case did he discover the slightest trace of cyanogen, hydrocyanic acid, or phosphoretted, sulphurretted, or carburetted hydrogen, except a very minute quantity of sulphuretted hydrogen in the air of a single vault which contained but a few coffins. The corroded parts of old leaden coffins, were always found to be carbonate of lead, with no trace of sulphate or sulphuret. Some of the coffins contained ammoniacal gas in large quantities, and others none at all; but, with this exception, the contained air was nearly alike in all being composed of nitrogen, carbonic acid, common air, and animal matter in suspension When ammonia was present, it overcame every other odor; when absent, the smell resembled that of very putrid moist cheese. The result was the same, whether the interment had been made a few weeks or a century and a half previously, and whatever the cause of the decease, or the age at which it took place

Out of all the coffins examined, but twenty of the leaden ones had been bulged by the pressure of the gases generated in the interior. This is only about one out of a thousand, and shows that the gases are formed very slowly. In leaden coffins the entire decomposition of the flesh required from fifty to one hundred years but in wood, only two to five years. Mr Lewis, besides his own investigations, made diligent enquiries of all the clergy, churchwardens, sextons and undertakers in every parish, and could not ascertain that a coffin had ever been known to burst suddenly from the pressure of the confined air. When one becomes bulged, or, as the sextons say, "blown," it is customary to make a small aperture in it, to which a torch is applied as an antidote to the noxious effects of the escaping gases. Several persons, whom Mr. Lewis consulted, had heard of cases in which the gases caught fire, but after searching inquiry, he could not find one who had ever seen them

Mr. Lewis's experiments were confined to vaults and catacombs, where the process of decomposition goes on under very different circumstances from those that attend open exposures or interments in the ground, and it is only concerning them that we can draw our inferences-which are, that the deleterious emanations that haunt these depositories may continue for a hundred years after they are closed; they are not rendered noxious by poisonous gases generated during the process of decomposition, but by the animal matter itself, with which, if ventilation is not allowed, the air finally becomes saturated; that nitrogen and carbonic acid holding animal matter in suspension, steadily, but quietly, make their way through the pores of lead coffins, and, by some means, to the open air, so that, at the end but a few dry bones, though the coffins are still sound and unruptured. What their effect upon the living constitution is, Mr. Lewis sufficiently experienced in his own person. First, upon exposure, came nausea and vomiting, then diarrhæa, and the next day throbbing pain in the upper part of the head, great prostration, utter loss of appetite, and an unpleasant earthy taste in the mouth. After continuing his investigations for a long time, he was attacked by a series of biles, followed by erysipelas.

# Telegraphs.

One of the conductors of the Southern Michigan Road is a telegrapher, and always car. coming a Republic than by a war with any This hat, the common sober hat, is then hard mation is all that can be claimed.

cars with him. When an accident occurs, or any derangement in meeting a train that should meet at a certain time, he throws a piece of wire up to the wire on the telegraph line on that route, sits in the cars, and inquires the particulars, or gives information to any depot on the route. To rig the machine does not occupy three minutes. So says the Detroit Tribune

#### Railroad Accidents---To Legislatures.

We call upon the Legislatures of the various States to refuse new charters for new railroads, excepting upon the condition, that each railroad construct a double track. We believe that such a policy would greatly reduce the number of railroad accidents, which we regret to have to say are now very frequent. A few weeks ago no less than three trains ran into one another, in succession during short intervals of time on the Hudson River Railroad. On Friday last week, a passenger and freight train ran into one another on the New York and Erie Railroad, whereby two persons were severely hurt, and perhaps by this time they are no more. We have been informed that on this same road, ten locomotives were smashed in ten days by collisions. Such things would not have happened if there had been two tracks. The great majority of our railroads have but single tracks; they are signalized for accidents, as there are so many liabilities to err by the conductors and engineers. Signals are not seen, the switch is not turned right, or some delay has happened to one down. It is really fearful to think of so many railroad accidents. Our suggestions, we hope, will meet with attention.

We have more than once recommended every railroad to use a telegraph exclusively for the conductors. We thought the New York and Erie Railroad had one; we know it was intended to have one last year.

In England, last year, only 11 persons were killed and 142 injured out of 38,000,000 being carried over the railroads, that is the number killed and wounded beyond their own control. It will be a happy time for our land when our railways will become as safe. Our railroad engineers are seldom to blame in cases of accidents; they have everything to lose, and the risk of life more prominent than all others, consequently they endeavor to avoid accidents.

The way in which our roads are managed, ather the system, is at the root of the evil,cheaply constructed roads, and the management of them at the least expense, are the first objects; well this is correct policy, but they are often managed by a prodigal economy at a most exorbitant outlay. Some people leap over sheaves to gather straws.

## Kossuth.

This great man has been in our city for two weeks, and during that time he has made more speeches than any man we ever heard of, in the same time. He has addressed all kinds of deputations and all kinds of people and classes -ladies, lawyers, clergymen, soldiers, mechanics, merchants, and editors. In every address he presented new ideas. He seems to have a mind rich with the choicest selections of history, law, science, and art. He is a most extraordinary man. If he could speak English as freely as his native tongue, he would carry all our people with him like a tempest; as it is, he carries all after him.

He will soon be in Washington, and we shall see what will come out of his visit to that! of themselves, and these generally among wanting a kiss, others his autograph, others a lock of hair, and so on. We think that some of our societies have exhibited but little prudence in the matter. The funds are pouring in to help the Hungarians to commence the struggle, but so far as the doctrines of non-intervention or intervention is concerned. Rus-

ries a telegraphinstrument and battery in the power, and Nicholas is not the man to act blindly to his own interests.

### Exciting News from Europe.

The R. M. Steamer Europa arrived at Halifax on last Saturday, having been obliged to put in there for coal. She had experienced very heavy weather. By her we are informed that a revolution was precipitated in Paris, not on the part of those termed Red Republicans, but on the part of the President Louis Napoleon. He had forcibly dissolved the Assembly, and committed many of its members to prison. He has proved himself to be a traitor, having violated the Constitution he had sworn to support, and had overawed the people's Representatives by cannon and bayonet. We do not know what intrigues were going on against him; perhaps he is merely the successful traitor-others, it is said, intended to impeach and imprison him. It is very evidentthat the French people are not in a state to carry on a government like that of the United States. No Republic can exist apart from a religious virtuous people.

#### Linen Washing in California.

It seems that the Chinese in California are the regular washerwomen of that golden land. A writer in the Marysville Herald, gives the following description of the Chinese laundry: About ten o'clock last evening we stepped into a pretty extensive laundry on High street, carried on by Celestials. At the very first glance we were impressed with the order and system observable in the establishment.train, and another must come up and run it | Those who were at work greeted us with a "chin-chin" as we entered, and kept on with their work. A grave looking Celestial sat at a table a great deal like pine, inditing a letter to a San Francisco correspondent. From a glance at the letter, we thought there was considerable character in it. Still another Celestial drew a bench towards the table, and kindly motioned us to a seat. He had, of course, a shaved head—and thereby hangs a

> We subsided into the seat, or rather upon it, and took a general survey. What a truly industrious people they are. At work cheerfully and briskly, at ten o'clock. Huge piles of linen and under-clothing disposed in baskets around the room near the different ironers. Those at work dampening and ironing-peculiar processes, both. A bowl of water is standing at the ironer's side, as in ordinary laundries, but used very differently; instead of dipping the fingers in the water and then snapping them over the clothes, the operator puts his head in the bowl, fills his mouth with water, and then blows so that the water comes from his mouth in a mist, resembling the emission of steam from an escape pipe, at the same time so directing his head that this mist is scattered all over the piece he is about to iron; he then seizes his flat iron. This invention beats the "Yankees" all to fits. It is a vessel resembling a small, deep, metallic wash basin, having a highly polished flat bottom, and a fire of charcoal continually burning in it. Thus they "keep the iron hot," without running to a fire every five minutes, and spitting on the iron to ascertain by the "sizzle" if it be ready to use. This ironing machine has a long handle, and is propelled without danger of burning the finger by the slipping of the "ironing rag." Ladies who use the ordinary flat iron will appreciate the im-

for the "Kossuth hat" is a decided useful imwhich are now generally worn.

The common silk hats have what are termed felt bodies. These are made of felted wool, are soft and pliable, and allow the gas to pass

as sheet iron, and quite as stiff; it greatly resembles a little pot, and in warm weather it most effectually prevents the evaporation of the pate. It causes headache, makes the hair to decay early, and is a most uncomfortable head appendage. We hope its days are ended in principle; oldish people of a sedate turn, although they would prefer the "Kossuth hat," do not like to adopt it just yet, from a prudential fear of being conspicuous. This is our feeling exactly upon the subject, we like the black felt "Kossuth hat" baring the little feather, (that may do very well for a military man) and we hope to see it come into such general use as will warrant us in doffing the hard shelled silk head kettle.— There never was a more ungraceful head gear, than that of the common hat.

We are indebted to Mr. Gardissal, our gentlemanly Paris agent, for a voluminous catalogue of the products of France exhibited at the great London Fair, also for a copy of the annual industry of France for 1851.

#### Jamaica and Bread.

An establishment for baking bread and biscuit, employing steam, has been erected in this island, and is in successful operation. The United States has uniformly exported large quantities of biscuit to Jamaica. The flour in use on the island is partially obtained from Canada, so that even in this respect we have a competitor.

The Blue Ridge Tunnel, in Virginia, will be 4,200 feet long, and about 800 feet have been penetrated. The rock is of the hardest kind, being solid trap or green stone, with veins of flint—and the work is progressing at the rate of about 100 feet per month from the two ends of the mountain.

We hope that the speeches of Kossuth—both those delivered here and in England will be published in one volume by some enterprising publisher. It will be one of the richest gifts ever made to English literature.

MR. EDITOR-Can you or any of your subscribers give me information in relation to the Mulley Saw, so called, as to its efficiency and durability, or who has its agency and erection. Is there any practically useful patent which, by a self-adjustment, will save the time usually lost by the separate doggings, &c., of the logs by the old process. Wm. H. R.

New York, Dec. 20, 1851.

The notorious gas contract has been, against all honor, justice, and the will of the majority of the citizens of New York, passed by both boards of the Aldermanic Council, and it now awaits the signature of the Mayor to become

### A New Telegraph.

A new Telegraph is reported by foreign papers to be soon adopted on a line between London and Liverpool. It is stated to be magnetic entirely, and requires no batteries. This will be a grand improvement, if true, but we do not think it is. A great number of new telegraphs have been patented in England within two years, not one of which, we believe, has been adopted.

# Speed of the Magnet Current.

A long experience of the coast survey with some dozen different lines of telegraph, establishes the fact that the velocity of the galvanic current is about fifteen thousand four hundred miles per second. The time of transit Since Kossuth came to New York, the Kos- between Boston and Bangor was recently place. He is a fair, even down man; he tells suth hat has become quite fashionable. This measured, and the result was that the time of fifty or a hundred years, nothing remains plainly what he wants; he does not manœu is a low crowned hat with a small black os- occupied in the transmission was one sixteemvre—he is too honest for that. Since he has trich feather stuck at the one side. Our peo-thousandth of a second, and the velocity been in our city, he has been run down by ple appear to go things by excitement, but of the rate of sixteen thousand miles per secthousands, and many have made great fools really this hat is a very sensible excitement, ond, which is about six hundred miles per second more than the average of other experiwhat are called the "upper classes,"—some provement upon the hard shelled silk hats ments. If it is desirable, the Yankee can be found who will make an effort to improve upon this speed.—[Boston Journal.

[This must be slow electricity, tor it has long ago been held to be a fact, by electrical from the head to escape freely. This is the philosophers, that the effects of an electric cur-Kossuth hat. To make it a common silk hat, rent would appear at a distance of 576,000 this felt body is saturated with lac varnish and | miles in one second; and, after all, it cannot sia will not care much whether we adopt them a covering of silk plush is ironed down on it truly be said that the velocity of electricior not. She has more to lose by Hungary's be- and smoothed up to shine like a mirror. by has ever been truly measured—approxi-