MISCELLANEOUS.

Chemical Analysis of Poisons.

It is well known that without the aid of chemistry, poisoning criminals would not be detected, except upon the confession of witnesses, who knew of and saw the deeds done. The strong evidence relied upon to prove that a person has been poisoned, and by what poison, is that of the chemist. To show how accurate the knowledge of a chemist is in respect to detecting poisons in the human system, we adduce the testimony of Dr. Reid, in the case of Otto Grunzig, tried for poisoning his wife in this city.

Lawrence Reid, professor of chemistry, sworn and examined by the District Attorney, deposed—I am attached to the City Hospital, Broadway; I have devoted myself to chemistry for 25 years; I was called upon to analyze a part of the body of Victorine Grunzig, in August last; Mr. Bleakly, the Assistant Coroner, brought me portions of the body which he told me were those of Victorine Grunzig; I wrote her name down; the parts were the stomach, with some fluid said to be part of the contents, the heart, a portion of the liver, and part of the lungs; I put them to chemical process; in those parts I did not discover any traces of mineral poison; I was afterwards furnished with other parts of the body of Victorine Grunzig; I cannot recollect what time it was; the other portions were the whole of the liver, all the intestines, the spleen, the other kidney, and the other portions of the lungs; I subjected them to a chemical examination; I heated them with sulphuric acid, for the purpose of detecting the organic matter; then burnt the substances, and placed it in an apparatus which generated hydrogen gas; the gas was inflamed, and upon intercepting the flame with a clean porcelain vessel, a slight indication was given to the porcelain, which, I supposed, was arsenic, but the quantity was so small that I cannot speak positively; it is called Marshe's test which I applied; I accompanied Mr. Bleakly to premises in Eldridge street; the number I do not know; I saw Mr. Bleakly scraping portions of the floor in the front room; he gave them to me; I was not present at the scraping of the floor in the back room; I suggested that all the medicines should be examined; this was after I analysed the contents of the body; I afterwards subjected the medicines to chemical tests; I did not discover in them any mineral poison; I analyzed the scrapings of the front room, and found mineral poison [pieces of porcelain produced with traces of metallic arsenic] one is the result of the scrapings of the floor of the second room; it is metallic arsenic.

Q.—Assuming the substance or the appearance in the second analysis you made to have been arsenic, what portion of a grain would you say was in it?

A.—I should say that it was less than a millionth part of a grain; I found about fifteen different medicines in the room; I examined them, and found no poison in them.

Arsenic sometimes produces a local inflammation and a diseased state of secretion; when arsenic acts as a slow poison, there is great difficulty in detecting it; but we then judge by the effects it produces.

I did not find any copper in the water in the stomach; I did not look for copper; the same tests would not show copper if it had been there.

The Court—What becomes of the mineral itself?

A.—It is supposed to pass off in the urine: I could not state what time it would take to pass off; some substances pass off immediately—for instance, turpentine; liquid passes into the kidneys, in about an hour; if arsenic was taken, I don't see why it should not pass off within twenty-four hours; I would rather say that it "might" pass off.

The accompaniments of the symptoms are pains in the bones, nausea, sickness, heat in stomach, and irritation of the throat; I believe delirium accompanies the advanced stage of persons under the effects of poison.

On last Friday the jury returned a verdict of "guilty of murder." He was convicted by the testimony of unerring science.

Recent Foreign Inventions.

Leather made from Scraps.—Mr. P. Webley, of Birmingham, England, has recently obtained a patent for the following method of using scrap leather:—It consists in forming a composition of scraps, or pieces of leather with gutta percha or caoutchouc. The scraps or cuttings of leather are first well washed in warm water, then taken out and partially dried, then steeped for a time in a solution of size or glue until fully saturated; it is then placed in a box or trough, the bottom and sides of which are perforated with holes to allow the escape of the superabundant portion of the solution. While in the box it is submitted to a very considerable pressure; it is then taken in the state of a hard block to a cutting or rasping machine, which consists of apparatus arranged and worked somewhat like a chaff-cutting machine. By this operation the composition is reduced to fine scraps or shreds; it is then steeped in warm water and well washed, to remove the glue. The washed shreds are then combined with melted gutta percha or cautchouc in proper proportion, and reduced to a state of sheet or plate, by passing it between rollers to any desired degree of thickness, for the purposes required, and then used for many purposes to which ordinary leather is applicable.

Artificial Fuel.—M. Pierre A. Le Comte De Fontainmoreau, of London, has recently obtained a patent for the following method of making artificial fuel:—The materials described as being employed, are the small branches of trees, annual plants, and the refuse portions of ligneous substances generally, such as tan-bark, sawdust, &c., and combining these with coal-tar, or other similar fluid or semi-fluid inflammable materials. The ligneous materials selected for the purpose are first submitted to a carbonizing process. This is conducted very much in the ordinary manner. The materials being carbonized, are pulverized and reduced to a state of powder by a mill, consisting of a pair of edge-cones attached to a vertical shaft, and operating in a similar manner to a pair of edge-stones revolving within a circular trough; the apparatus is provided with rakes and scrapers, and when the material is properly pulverized, it is discharged from the trough by an aperture provided for that purpose.

The pulverized material is now mixed with a proportion of coal-tar or other fluid or semi-fluid inflammable material; this operation is performed in a trough, within which a pair of running edge-cones are working. The materials being thoroughly mixed together, they are submitted to the moulding operation, in which a considerable degree of pressure is employed to force the materials into cast-iron moulds of the form desired. The machine consists of a cross-head. to which a number of moulding or pressing rods are attached in a vertical direction; side connecting rods are attached to the cross-head, and to a cranked-shaft below, and by the rotation of the shaft a reciprocating vertical movement is given to the cross-head; thus when it descends, the moulding-rods will be forced into the moulds beneath, and compress the materials placed therein. The compressed and moulded materials now constitute a firm hard compact fuel, not liable to breakage or crumbling from being moved about. The compressed lumps are then submitted to the last process, which is that of complete carbonization. The lumps are arranged upon an iron carriage, and then introduced into a carbonizing oven or kiln, maintained at a high temperature until all the vapor or gases are driven off; they are then removed and allowed to cool.

We are indebted to our invaluable exchanges, "Newton's Repertory of Arts," "Patent Journal," "Mechanics' Magazine," and other London Journals," and to the "Genie Industriel," &c., of Paris, for the above, in substance.

Mr. Steers, the designer and constructor of the yacht America, has been elected an honorary member of the New York Mechanics' Institute. This is an honor conferred upon those only who have invented and constructed some work of great merit. Mr. Steers has been the means of bringing great honor to this country as well as to himself. The Institute has done all that it possibly could do to testify its admiration of his abilities. We hope the testimonial designed by some of our citizens to show the sense of "the services done the State," by Mr. Steers, will soon be forthcoming and as handsome as it is well deserved

The Gold of California.

The steamship Cherokee arrived at this port on last Saturday evening, and brought two millions and a half of gold dust. The gold discoveries instead of decreasing, were on the increase, and the number of emigrants to San Francisco was greater now than ever.

An extraordinary cave had been discovered about six miles from San Antoine, which had been entered and partially explored to a distance of over 1,400 feet. It is described by those who have seen it as being divided into countless chambers and apartments, all of easy access, adorned with curiously shaped figures of stone, making them resemble well furnished rooms; and from the ceilings hanging pendant in huge masses, bright crystals, flashing the light of torches, give the appearance of gorgeous chandeliers suspended from a richly-furnished dome, to shed their lustre upon the magnificence that lies scattered around; while in some of the apartments, floor, walls, and ceilings, reflect back such a flood of light from innumerable stalactites, as to be almost blinding. There is a general and regular descent to the cave of about 35 degrees.

Pickling Meat.

Prof. Refiensque denounces the use of saltpetre in brine intended for the preservation of flesh to be kept for food. That part of the saltpetre which is absorbed by the meat, he says, is nitaic acid or aquafortis, a deadly poison. Animal flesh, previous to the addition of pickle, consists of gelatinous and fibrous substances, the former only possessing a nutritious virtue; the gelatine is destroyed by the chemical action of salt-petre, and, as the professor remarks, the meat becomes as different a substance from what it should be, as leather is from the raw hide before it is subjected to the process of tanning.

He ascribed to the pernicious effects of the chemical change all the diseases which are common to mariners and others who subsist principally upon salted meat—such as scurvy, sore gums, decayed teeth, ulcers, &c.—and advises a total abandonment of the use of saltpetre in the making of pickle for beef, pork, &c., the best substitute for which is, he says, sugar, a small quantity rendering the meat sweeter, more wholesome, and equally as durable.

American Ship-Building.

The following is the acknowledgment made by Wilson Green, Esq., at the dinner on board the packet-ship Great Western, in answer to the toast, "The Liverpool Ship-builders." After speaking of ship-building generally, and what could be done in America, Mr. Green said,—

"That the Americans had advantages which they did not possess in England, and it must be acknowledged that their ships are amongst the noblest specimens of naval srchitecture, and could not be rivalled. He thought, however. that if in Liverpool we had the advantages which they had in America, we might compete with them; he would not say they could beat us, but we should first have a trial. He would say this, that in almost everything connected with ships the Americans were leading us. [Hear.] They had a class of steamers which came here from the United States. Now, as a ship-builder, and one acquainted with building large steamers, he did not hesitate to say there were not finer or better built vessels than the American steamers. [Hear, hear.] The Atlantic had sustained a succession of severe gales, which few ships could have withstood, and when she was examined in the dry-dock at this port, there was not the slightest appearance of any strain. She exhibited what he never saw before. It was well known that ships of war invariably settled about five inches; but the Atlantic did not vary an inch and a half. [Hear, hear.] There was not a frigate in the English navy that would not sink five inches. The sinking was shown by the copper; but there was not the slightest abrasion in the Atlantic. He hoped we should go on with America in the spirit of honest rivalry; and he begged to propose as a toast—'The Ship-builders of the United States of America.'"

The Steamship Great Britain.

This magnificent vessel is now ready to receive her engines. She is to have six boilers, three on each side, and two funnels, abreast of each other. The alterations in the ship have added materially to her appearance, and they have also increased her capacity. By means of the new deck house the ship will be able to carry coals for the voyage out and home, about 600 passenges, and 3,000 tons of measurement goods; whilst her engines, which are nominally of the same power as before, but really more efficient, will give her a higher speed. The new screw is now fixed in its place. Its diameter is 15 feet 6 inches, and its pitch 19 feet.

The rudder post may be termed a bar of iron firmly secured to the keel behind the propeller, and rising to the iron work above the upper end of the rudder post, inclining backwards. If any one will take a walking stick, and hold it in a sloping direction just a few inches out of the perpendicular, it will show the position of the rudder post in the ship. Then again, at the top of the rudder post, it takes a sharp curve inward into the framing of the ship, forming an acute elbow similar to the crook of a walking stick. The rudder post is turned at different diameters, tapering downwards, so that the rudder cannot get fast by working down. And into the crook of the rudder post a steel pin has been inserted upon which the rudder rides or turns. The rudder itself, that is, the movable part of it, consists of an iron frame, plated with sheet iron. The action of the rudder is partly upon the steel pin of which we have spoken, and partly upon the rudder post, which it is made to encircle; and vibration is prevented by a portion of the rudder being made to project forward of the rudder post.

Circular Saws.

Mr. Editor—I have long used circular saws, and much as I like them for some kinds of work, there are difficulties attending the running of them—I mean those of a larger size—which I have never been able to obviate, although I have tried many plans to do so. The difficulties are the heating of the saw, and the liability of it to depart from cutting in a straight line, thus making bad work. I write to learn if there is any proper remedy for these evils. I am not alone respecting the difficulties, which I have mentioned. A remedy for them would be of great benefit to hundreds of persons engaged in the business and a knowledge of which, if any exists, would do harm to no one. I write this in the hope that you or some of your readers may be able to give the desired information. R.W.W.

Florida, 1851.

[We have been informed that a remedy against injurious heating of the saw, has been provided in many instances, by lessening the number of teeth in the saw. There are many apparently small things existing, either as benefits or defects, which render machines useful or useless, which no theory can discover or point out. These belong to practical mechanism, and the attentive observer is the man who is the Seer for such things. It is impossible for one man, or a thousand men, to know about *all* these things, but we are confident that some of our readers do know, for they are neither few nor far between, and we also know they are of the right stamp to consult in such cases. We hope some of them will give the public the benefit of their knowledge respecting the practical information so much desired.—[Ed.

Improved Blacksmiths' Tuyeres.

Mr. Henry Kern, of Woodstock, Shenandoah Co., Va., has taken measures to secure an excellent improvement in Tuyeres for blacksmiths' fires; it consists in providing a circular cast-iron box, having four nozzles on its inner side, pointed towards the centre of the fire, this box being situate on the circle of the fire, and connected with the bellows; it therefore forms a wind-chest, which conveys the wind from the bellows, through the nozzles, to the fire. This produces an even heat throughout the whole breadth of the fire, something which is of no small importance. It is well known that, for heating the tires of wheels, this improvement will be of great value.

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For the Scientific American.

Electro-Magnetism as a Motive Power.

Much has been said in disparagement of this power as a prime mover; it has been urged that it is more expensive than steam power, I know of no instance where it has been attempted to prove that it could be made a power as cheap as steam; I would therefore throw out the following observations to the future experimenter in this branch of the arts:—At present the metal used to produce galvanism is zinc, which, being dissolved by sulphuric acid, produces sulphate of zinc, an article of little commercial value. But if we could use some other metal, the residue, or salt, of which would be of some intrinsic value, we might, perhaps, reduce the cost of electro-magnetism to a mere cypher.

Faraday has demonstrated that the amount of galvanism which any battery produces is in exact proportion to the amount of metal consumed; Prof. Hare is of the opinion that we cannot produce galvanism of any practical utility without the consumption of some metal, chemical decomposition is absolutely necessary to produce galvanism, and the power of that galvanism depends on the quantity and the rapidity with which that metal is consumed. Liebig seems to despair of electro-magnetism ever taking a prominent position as a prime mover.

For certain purposes, I admit, it will never be used to advantage, as, for example, in steam-ships or railroad cars, for the very reason that Liebig advances, namely, that one pound of coal produces as much mechanical power as thirty-two pounds of zinc. It is not the expense, but the bulk and the weight of the metal, to which I object, for it would require four and four-sevenths times more room to stow away enough zinc to produce as much power as coal, besides being thirty-two times heavier. But for stationary engines, I believe electro-magnetism will, some day not far distant, take the place of steam. It so happens that hitherto the arrangement of the battery has been such, that the salt formed by its action is of no value. In the construction of a galvanic battery, two things ought to be kept in view, viz., economy and power; the former has been sadly disregarded, all the ingenuity of the inventor has been bestowed upon the latter.

I have constructed a battery in which silver takes the place of the zinc, and nitric acid the place of sulphuric acid, the salt formed by this battery—nitrate of silver, is of much use in the arts, and is worth as much as the silver and the acid used in its production, leaving the galvanism produced a net profit.

Mr. Joule has proved that 45 pounds of zinc consumed in a Groves' battery, in 24 hours, are capable of producing one horse power; 45 pounds of zinc, dissolved in sulphuric acid, yield 30 pounds of sulphate of zinc. From the researches of Faraday, it appears that the quantity of the voltaic fluid given out during the solution of various metals, is in the ratio of their atomic weight; accordingly it will require 30·9 pounds of silver to produce the same effect. Now 30·9 pounds of silver will yield 46·69 pounds of nitrate, which is worth $1,12 per ounce, making the salt produced, in a one horse-power engine per day, worth $627,50. Coin silver is worth $1,16 per ounce, accordingly 30·9 pounds of silver are worth $430, leaving a balance of $197,50; my battery consumed 3 dwts. of silver and one ounce of acid in 24 hours; nitric acid is worth $1,12 per pound, accordingly $24,68 worth of acid will be required per day to work the engine, leaving $172,71 to pay for collecting and casting the nitrate into sticks ready for market.

Using mercury and muriatic acid instead of silver and nitric acid, corrosive sublimate was formed, and I have no doubt that many other arrangements can be made in the battery, producing a number of salts, useful as paint, medicine, and for dyeing.

Dr. Boyton has demonstrated that muscular motion is produced by electro-magnetism, and that the brain is the galvanic battery; the nerves the conductors, and the muscles the electro-magnets. Now, if we for a moment contemplate the animal system, we are astonished with the immense power which this small battery exercises, for it is not merely the work which an animal can do that measures its power, but by far the greatest part of its power is consumed in re-production and respiration. Hoffman and Haller say that the heart alone pumps out about seven tons of blood per day.

In the construction of electro-magnets, too, little regard has been had to nature; the muscle of the animal consists of many hundred small fibres; these fibres are hollow tubes, containing many thousand minute globules, only visible by the aid of the microscope, these globules are composed of about 90 per cent. of iron, and are encircled by a nerve, and the galvanic circuit being closed by the will, are rendered magnetic and attract each other, thereby shortening or contracting the muscle. On the circuit being broken, the muscle is again restored to its former position, thereby producing animal motion. It is singular that nature should construct her electro-magnets globular instead of the shape of the horse-shoe, as man has done, the question arises, which of the two is the proper form? I am inclined to think that the former is the best; the matter contained in two globes can be brought into closer attractive proximity, than the same quantity of matter can be brought in any other mathematical figure, and as the power of electro-magnets is rapidly diminished by being drawn asunder; that is to say, gravity is diminished as the square of the distance is increased, but magnetism is decreased in a much more rapid degree. According to R. Hunt, a magnet, in contact with an armature, lifted 220 pounds; when separated only one-fifth of an inch, it was only capable of lifting 40 lbs. It is also necessary that the electro-magnets be made very small, making a powerful magnet by the combination of numerous small ones instead of very large ones. J. F. Mascher.

Philadelphia, 1851.

[For the Scientific American.]

Remarks on Inks.

It is important to have good ink, and as your paper is the best medium for communicating information of this kind to the public, I will make a few remarks of useful import.

The best nutgalls are externally of a dark lead or bluish color. When broken, the internal surface is "brownish, hard, solid, brittle, with a flinty fracture, and a small spot or cavity in the centre, indicating the presence of the undeveloped or decayed insect." Inferior galls are lighter, both externally and internally, sometimes reddish or nearly white, of a loose texture, with a large cavity in the centre, often communicating externally by a small hole, by which the fly has escaped. As it is often the most worthless kind of galls that is kept ready ground for sale, they should not be bought in that state. The poor galls are unfit for making good ink, as I have ascertained by many experiments. It is better not to boil the galls.

Logwood is often added to ink to give it a purple cast, though it soon turns to a brownish black, (about the same color as galls). It is generally thought not to be so permanent as galls, but my experiments, made twelve years ago, with logwood, in place of galls, do not show any fading. Cheap inks are also made with oak bark, &c.

Several of the salts of iron will make ink: the best is the sulphate (green copperas). The copperas of commerce, though not pure, is generally near enough so for our purpose. The crystals only should be chosen. Copperas, by exposure to the air, effloresces, that is, loses its water of crystallization, and falls into a dirty white powder; the iron, or part of it, at the same time, passes into the peroxide. The same effect can be produced by calcining it; the powder and galls will make a black ink at once, but for reasons which will be explained, the green sulphate is much preferable.

One part of green copperas to two parts of galls, I believe to be the right proportion for durability. If the galls are increased (the other articles remaining the same) to three or four parts, the ink appears to be very little, if any stronger. When the copperas is increased up to equal the galls, the color, too, is somewhat increased. More copperas than this adds nothing to the color, and is hurtful. Lewis, and some others, recommend three parts of galls to one of copperas, on the supposition that the iron, being stronger than the gallic acid, overcomes it after some years, and the ink fades for want of a larger proportion of the gallic acid. As only about one-fifth of the weight of green copperas is iron, it will be seen that when metallic iron is used, it must be diminished somewhat according to that proportion. Cast-iron, steel, scales of iron, iron rust, &c., will not answer. It must be wrought-iron, (turnings or fine wire) and vinegar, or some vegetable acid used with it.

It was recommended by Lewis to add a piece of metallic iron to the ink, probably with the view of its taking up any free sulphuric acid which might be in the copperas. A very small piece, or a few filings might be beneficial, but too much is too much, even of iron.

A small proportion of the sulphate or of the acetate of copper, seems to add somewhat to the intensity of the blackness of new ink, but it causes a considerable precipitate, and I think on that account it is best left out.

Gum arabic or senegal, and sometimes sugar, is used to assist in keeping the coloring matter suspended, to prevent the ink from spreading, and to give a it lively appearance.

Clean rain water has no lime or other saline impurities in it, and therefore should always be preferred to well and spring water for making ink. The rain that falls in the first part of a shower, after a dry time, is not so clear as what comes afterwards. Water is the only fluid necessary, but the substitution of a small proportion, say one-fourth part of vinegar, will do no harm. A large proportion makes the ink strike too deep into the paper, and disposes it to spread. Stuff, called vinegar, sharpened with oil of vitriol or the like, is of course destructive to ink.

When the ink is made strong, there is a less proportion of sediment than when diluted. To prevent ink from moulding, add two grains of corrosive sublimate to each pint, previously dissolved in a little spirit. Arsenic, I suppose, would do as well, as both of these poisons are destructive of vegetation (mould).

For a permanent black ink, I suppose the following recipe is equal to any:—

Blue galls, pulverized, 8 ounces.

Gum arabic, [illegible] ounces.

Green sulphate of iron, 4 ounces.

Rain water, 6 pints.

An ink which I have made for several years, and found to give very general satisfaction, is as follows:—

4 lbs. galls, bruised. 2½ lbs. copperas. ¼ lb. extract of logwood. 1½ lbs. gum arabic. 8 gallons of rain water. All put together in a non-metallic vessel, and shaken or stirred with a wooden stick several times a day for two or three weeks; then, after settling, decanted and poured into bottles and tightly corked. If the ink is warm when put in the bottles, they may be filled up so as to leave very little air in them without danger of their breaking.

When first poured from the bottle this ink is quite pale; but, on exposure to the air, it soon acquires oxygen, thickens up, and becomes black; and, at the same time, the blackness is disposed to separate from the liquid, and settle to the bottom; hence Japan ink, or ink already black, is not the best for writing with, for the coloring matter, instead of being in solution, is precipitated, or merely suspended in the liquid by means of the gum arabic, and unless it is frequently shaken, a considerable portion of the strength is at the bottom of the inkstand. It is therefore better to write with the ink in its pale or unoxigenized state, as from its thinness and clearness it flows freer, makes a cleaner mark, and looks better on paper. In a few hours after the writing it shows a strong color, and in a few days it is perfectly black, and you are assured of its remaining so, for the whole strength of the ink is there. All you want at the time is color enough to see to write by, and there will always be peroxide of iron enough in the copperas for that.

Blue Ink.—Much of the prussian blue of commerce will not make blue ink, unless it is digested in muriatic acid and washed. The right kind is now called Paris blue: it is of a deep, rich, purple color, when dry; 1 oz. of it, and ½ oz. oxalic acid, and 3 pints of rain water shaken together, will at once make a good blue ink. I have found gum arabic worse than useless, as it causes a sediment.

Red Ink.—If you can get the right article of Brazil wood the following will make a pretty ink.

Boil 4 oz. of ground Brazil wood in two pints of good vinegar down to 1 pint, strain, and add ½ oz., each of powdered alum and gum arabic, and if you wish it still more glossy, ½ oz. loaf sugar.

A pale green ruling ink is made of 1 oz. powdered verdigris, ½ oz. cream tartar and 8 oz. water. A. D. Sprout.

Chillicothe, Ohio.

Curious Effects of Excitement.

"My head is gray but not with years."

"A young man, twenty three years old, came from the mines to San Francisco, with the intention of soon leaving the latter place for home. On the evening of his arrival, he with his companions, visited the gambling saloons. After watching for a time the varied fortunes of a table, supposed to be undergoing the process of 'tapping' from the continued success of those betting against the bank, the excitement overthrew his better judgement, and he threw upon the 'seven spot' of a new deal, a bag which he said contained $1,700, his all—the result of two years' privation and hard labor—exclaiming, with a voice trembling from intense excitement, 'My home, or the Mines.'

As the dealer slowly resumed the drawing of the cards, with his countenance livid from fear of the inevitable fate that seems ever attendant upon the tapping process when commenced, I turned my eyes upon the young man who had staked his whole gains upon a card; and never shall I forget the impression made by his look of intense anxiety, as he watched the cards as they fell from the dealer's hands. All the energies of his system seemed concentrated in the fixed gaze of his eyes, while the deadly pallor of his face bespoke the subdued action of his heart. All around seemed infected with the sympathetic powers of the spell—even the hitherto successful winners forgot their own stakes in the hazardous chance placed upon the issue of the bet. The cards are slowly told with the precision of high-wrought excitement. The seven spot wins. The spell is broken—reaction takes place. The winner exclaimed with a deep drawn sigh, 'I will never gamble again,' and was carried from the room in a deep swoon, from which he did not fully recover until the next morning, and then to know that the equivalent surrendered for his gain was the color of his hair, now changed to a perfcet white."

[The above is from the Boston Medical Journal, which would not surely publish a fiction. We have heard of a number of such cases, but have always been skeptical about them, because we never saw a person who was so transformed.

Great Discovery of Lead Ore.

The Galena (Ill.) Advertiser gives an account of the discovery of lead ore, which promises to surpass anything of the kind on record. It was made about two miles north-east of the Linsipheur Mound, is two miles distant from any other diggings, on a farm in the prairie, and was made by a boy finding mineral in a creek. "On examining the bottom of this creek, it was found to be almost a solid mass of lead ore for some ten or twelve feet in width. Some three or four holes have been sunk about four feet in the clay, on each side of the creek, and specimens of large block mineral taken out, weighing from fifty to one hundred pounds. This ore lies between the clay and rock, forming a horizontal floor, and has been proven on one side of the rock for fifteen feet in width. This discovery may be considered as a new feature in the development of the resources of these mines—it being in a district of country that has been laid open, on the prairies, till the last few years, and was not considered as mineral ground by a majority of the old miners, and it adds another evidence to prove how little is known of these mineral formations. It is impossible to estimate the probable value of this discovery. There is none of that change of ground on either side of this discovery, which has invariably terminated the veins of ore throughout these mines, and there is reason to believe it lies immediately between Hazel Green and North Fairplay diggings, and that it is an east and west vein, forming a link in the subterranean network of veins, connecting these two mining districts.

By the latest news the Crystal Palace was still standing and many hoped it would be permitted to do so.

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