

THE WORLD OF SCIENCE.

Iron vessels of large tonnage are displacing small wooden crafts on our great inland fresh waters as well as on the ocean.

The vapors of nitrous ether are recommended by M. Peyrasson as a disinfectant and antiseptic. They have neither a disagreeable nor hurtful smell.

Some far-reaching data are looked for regarding deep-sea fisheries when the steamship for which \$103,000 had lately been appropriated by Congress completes the work for which she is to be specially constructed under the supervision of Professor Baird.

It is said that during a hail-storm in Geneva Professor Colladon observed that the hailstones repelled each other as they fell, and that after lying quiet for a moment or two on the ground bounded about like the electric hail experiment of Newton with pith-balls.

Professor Tidy, in a paper read before the London Chemical society, restates his firm conviction that a fairly rapid river, having received sewage in quantity not exceeding one-twentieth of its volume, regains its purity after a run of a few miles, and becomes wholesome and good for drinking.

Prussic acid remains for a considerable time in the bodies of animals poisoned with it, and arrests their decay. M. Brame killed a rabbit and a cat by administering to each a gramme of this acid. A month afterward the bodies were found perfectly preserved, the dose being sufficient to permeate the tissues and to become intimately incorporated with those of the stomach.

The sleepers of French railroads are preserved from decay either by subjecting them to a process of saturation with creosote or with sulphate of copper. A new method is proposed by M. Jacques. Fatty substances (in the form of a soapy solution) combined with phenic acid are injected into the wood so as to penetrate every fiber of it. After a lapse of eight days a fatty acid is formed which is said to be insoluble in water and to be capable of affording the most complete protection against the rotting caused by moisture.

According to *Les Mondes* plans have been prepared for a large crystal palace, to be constructed in the Park of St. Cloud, Paris, for permanent exhibition of objects relating to art and industry, with scientific experiments on a grand scale. There will be representations also of the vegetable and animal kingdom of the different geological ages, and views and models of ancient and modern monuments and curiosities from all parts of the world will be included.

Mr. E. T. Sachs sends the *Nature* some interesting natural history notes from Batavia: Within the past month I have been so lucky as to make what I hope is a remarkable discovery. On the island of Biliton, two hundred miles from here, I found a fresh-water fish which produces its young living from its mouth. I am quite prepared for the cry of incredulity that will be raised; but I conducted my observations with living fish and closed doors, and what I assert is undeniable. The eggs are hatched in the lower portion of the head of the fish, and are projected out of the mouth and from nowhere else. I have secured several specimens which I shall send to Dr. Gunther, who will, of course, at once set the matter at rest. I also got on Biliton a butterfly which is either a new *Thecla* or the male of the pretty *Myrina nix* peculiar to the island.

An Important Advance in Photography.

The old saying concerning invention being the offspring of necessity is well illustrated in the new bromide emulsion process, recently perfected abroad, and introduced here (says a New York paper) by Mr. Rockwood, of 17 Union square. The continuous dark and foggy atmosphere of London and other large cities of Great Britain and the continent, induced Captain Abner, Herr von Monckhoven and other scientists, to seek some new photographic process which would be even more sensitive than that hitherto in use, with the hope that portraiture might be made successful in modified light, or possibly be worked practically by artificial light. A marked success attended their efforts, and portraits are now made in one or two seconds under a portrait light, and out-of-door pictures in a fraction of a second of time. Mr. Rockwood was abroad at the time of its most complete success, and secured the process for his establishment.

The advantage of a practical process of this kind for the photographing of children or adults is very great. It dispenses with the annoying "head-rest," and makes all days "sunny days," or working days to the photographer. In the late dark weather, when successful sittings by the ordinary process was almost impracticable, and excellent results were obtained in two seconds. Mr. Rockwood has probably photographed more persons than any man living, his list of negatives now numbering 110,000.

Handwriting is an indication of character when it is employed in putting another man's name to a check—*Somerville Journal*.

TOPICS OF THE DAY.

Baltimore is astonished to find that its cemeteries have been so poorly guarded that the city has become a headquarters for the supply of "stiffs" to colleges throughout the country. The correspondence of a resurrectionist has just been made public, and it shows that his orders came from New England, Chicago, Cleveland, Atlanta, Ga., and other cities in different sections. The cemeteries, too, show a wholesale rifling of the graves, and altogether the public is waked up over the inhuman traffic as never before.

With all its other troubles Nevada is threatened with a grasshopper plague this summer. The Virginia (Nev.) *Chronicle* says that the farmers in Carson valley have suspended their spring plowing to consider the matter. They found that they were turning up perfect beds of grasshoppers' eggs, and not desiring to help hatch those pernicious insects they quit their work. The farmers are in a quandary. If they do not cultivate their ground they will have no crop, and if they do cultivate the grasshoppers will eat up the crops before they can be harvested. Many of the farmers will put in no crops this season.

The London *Times* declares that the animals distinguished for their height and bulk are gradually disappearing. Their bodies are so huge that year by year they find increasing difficulty in getting nourishment, and their multiplication is very slow. Rats, mice and insects are so prolific that extermination is well nigh impossible; the whales, walrus, seals, white bears, the common bears, wolves, lions, tigers, gorillas, the giant armadillo, giraffes, bison, elephant, hippopotamus, rhinoceros, kangaroo, elephant, turtle, crocodile, birds of the ostrich group, the penguin, etc., are all threatened with extinction.

Sweden has had one of the severest winters ever known. About the middle of February, while the thermometer showed about ten degrees, there was a fearful snow-storm all over the country, lasting four days. The street-cars of Stockholm could not run; no train could start in any direction nor come in, and no victuals could be taken to the city. The price of milk, butter, eggs, etc., rose rapidly. The snow in the streets was near two yards high, and in the country it reached a height of six yards. Many accidents were reported, men perishing on the road, and vehicles of all sorts becoming buried in the snow.

The nature, cause and prevention of fogs and clouds are subjects of prime importance in England. Consequently it is not surprising that Mr. John Aitken, F. R. S., should propound a new and singular theory in regard to them. He contends that it is the presence in the air of minute particles of dust, which absorb moisture from the atmosphere, that causes the formation of mist and clouds. Hence if the air were kept free from dust, there would be no clouds, no fogs, and possibly no rain. This theory may contain much truth, regarding London fogs, but in general the world will be apt to treat it as did the Royal Society of Edinburgh, with great caution.

The method by which the Brush Electric Light company proposes to illuminate the city of Cincinnati, if the board of public works accepts the offer, is to erect towers 200 feet in height and place on top of them lamps with a capacity of from 16,000 to 18,000 candle-power, and on seventy-five foot posts lamps of from 2,000 to 4,000 candle-power. A central station has been established, five machines, with a total capacity of 208,000 candle-power, are now being manufactured, and the company expects to be ready to commence operations within a month from this date. According to the contract, the cost is to be twenty-five per cent. less than the price now paid for gas.

An Englishman named Rowe, profiting by Mr. John Burrough's suggestion that the English skylark might be naturalized in this country, is about to ship twenty-five pairs of these birds to the United States, and liberate them here. It is doubtful, however, if the skylark would make so profound an impression here as in England, where there are almost no birds with remarkable musical abilities. The skylark's song would be tame compared with the rollicking gush of melody from the throat of the bobolink, and as for sweetness and sentiment, the notes of the American wood thrush are far more superior to his. "But we cannot have too many song birds," remarks an exchange, "and would gladly welcome the skylark, especially as he comes from England, which owes us much amends for the curse of the English sparrow, a bird with no song, ill-tempered, and of doubtful value to the farmer."

On February 22 President Hayes caused to be issued a general order prohibiting the sale of all intoxicating liquor at military posts and stations. Since the promulgation of the order a large number of letters from post traders, sutlers, etc., have been addressed to the war department, making inquiries

in regard to its intent, whether "cider," "beer," etc., were intended in its prescription. Adjutant-General Drumm has issued a general order, in which he says, referring to this order of February 22: "The words 'intoxicating liquors' are understood in their common acceptation, and embrace what are generally known as ardent spirits, brandy, whisky, gin, rum, and liquors containing a large percentage of alcohol, and do not include light wines, cider, beer or ale." This order has been promulgated for the information generally of the army.

Stage robbers at Benson, Cal., made a mistake the other night. Detective R. H. Paul, the "supervisor" of the Tombstone route, was on the stage with the driver as the mail left Benson, and he is a man who no two cowboys would attempt to tackle. At the first word, "Hold!" Paul coolly reached for his gun, exclaiming, "By—, I hold for nobody!" It is a question who fired first, Paul or the robbers, but the crack of the rifles was almost simultaneous, frightening the leaders into a run. Paul emptied both barrels of his gun and also his revolver, while the stage was rattling along as fast as horses could haul it. The driver had fallen dead from the box, and a passenger who was upon the box was dying with a mortal wound. As soon as Paul could he regained the lines that had fallen from the hands of Bud Philpot, who was shot through the heart, and transferred Wells, Fargo & Co.'s box and the United States mail intact to the agent of the line at Benson, who carried these and the frightened passengers through to Tombstone. Paul started back with four men to the scene of the attack, but the robbers had fled.

Progress in strawberry culture has been more rapid than in any other department of fruit growing. Beginning with nothing fifty years ago save the wild berries offered in the cities, there are now wagon-loads, car-loads and boat-loads sold of luscious cultivated berries. The magnitude of this industry is indicated by the efforts made by some of the large growers to supply the market. The late Mr. Knox, of Pittsburg, sold one day's picking for \$3,000. One man in California raised 5,000 bushels and Mr. Young, of Norfolk, has 250 acres devoted to this crop. The success of these large growers, separated as they are by such magnificent distances, reminds us of the universality of this business. The strawberry can be grown everywhere and on all sides. It is the servant of all work. The owner of a single square rod of ground may have his strawberry patch and in due time his bouncing, luscious berries.

"He who plants pears plants for his heirs." Not so with the strawberry. If time is an object they may be planted in an early spring and run races with green peas. In seven weeks from the time of setting out the plants the first ripe berries may be picked, and the following year the largest and best crop will be ready to be harvested.

Fernando Wood's Joke on Henry Clay.

Henry Clay took a fancy to Fernando Wood, and never lost an opportunity of paying him personal attention. One day, while Clay was walking with him, they passed a shop where men were manufacturing cigars. Clay expressed surprise at the dexterity of the workmen, and said that it must require years of experience to do the work with such apparent ease. "Oh, no," Mr. Wood replied, "they merely cut off a piece of the tobacco, roll some of the dry part in their hands, then wrap it up, and the whole thing is done. Any person can make a cigar."

"If you think so," said Clay, "perhaps you had better try."

The young Congressman sat down, took a knife and a leaf of tobacco, and with a dexterous cut prepared his wrapper. He then broke the filling to the proper size, rolled it all up together, twisted the small, symmetrical pigtails at the end, cut off the top, and handed the well-made cigar to the Kentucky Senator.

Clay was amazed. Wood had become a skillful cigar maker during the cholera season, while in the tobacco trade. The shopkeeper stared with wonder at this new congressional accomplishment. The joke ran the rounds of Congress, and was frequently told at Clay's expense.

Ways of Catching Fish.

The Icelanders are said, at one time, to have taught bears to jump into the sea and catch seals. The China birds are equally well trained, for at a signal they dive into the lakes and bring up large fish grasped in their bills.

In Greece the fishermen use branches of pine steeped in pitch and lighted; the inhabitants of Amorgos use eypress-leaved cedar, which serves, when lighted, as a flambeau; and the Chinese fish in the night with white painted boards, placed in a manner to reflect the rays of the moon upon the water doubly. These attract the fish to the boat, when the men cast a large net, and seldom fail to draw out considerable quantities. Anchovies are fished for also in a similar manner.

PEARLS OF THOUGHT.

There is no secret nook where a man may hide from his fate.

We seduce ourselves into downright lying by slight provocations.

It is better to be blamed for doing your duty, than praised for not doing it.

Oaths are straws, men's faiths are wafer cakes, and holdfast is the only dog.

Many have blown into the trumpet of fame, but few have filled it so that it sounded.

Some men seem constantly turning an internal grindstone to keep their anger sharp.

It is not the many oaths that make the truth, but the plain single vow that is vowed true.

Let no man presume to give good advice to others that has not first given good counsel to himself.

No one believes that he can mystify his mind; but every one imagines that he can gull his conscience.

How is it possible to expect that mankind will take advice when they will not as much take warning.

Youth is the spring for planting the seeds of knowledge; age, the autumn for watching them ripen into wisdom.

Remember this: They that will not be counseled cannot be helped. If you do not hear reason she will rap your knuckles.

When you would indicate the evil-doing of another, be sure that you are not endeavoring to make an argument which shall fit your own case sometime.

When you are smitten on the one cheek, it is good to turn the other; but that is no reason for protruding the cheek before a blow has been threatened.

Truth, they say, lies at the bottom of a well. That is reason enough why so few of us are acquainted with her. Few like to intrust themselves to the bucket and windlass.

It is well once in a while to turn over the leaves of our past lives, and mark distinctly those passages that denote errors, so that, in the future, we may more easily refer to them as warnings and the ways that would again mislead us.

Under the Snow.

The remarkable case of Elizabeth Woodcock, who was buried under the snow, is especially striking. In the winter of 1799 she was returning on horseback from Cambridge (England) to her home in a neighboring village, and having dismounted for a few minutes the horse ran away from her. At 7 o'clock on a winter evening she sat down under a thicket, cold, tired and disheartened. Snow came on; she was too weak to rise, and the consequence was that by the morning the snow had heaped around her to a height of two feet above her head as she sat. She had strength enough to thrust a twig, with her handkerchief at the top of it, through the snow, to serve as a signal and to admit a little daylight. Torpor supervened, and she knew little more of what passed around her. Night succeeded day, and day again broke, but there she remained, motionless and foodless. Not senseless, however, for she could hear church bells and village sounds—nay, even the voice and conversation of some of her neighbors. Four whole days she thus remained—one single pinch of snuff being her only substitute for food during this time, and this even she found had lost its pungency. On the fifth day a thaw commenced, and then she suffered greatly, but still without being able to extricate herself. It was not until the eighth day that the handkerchief was espied by a villager who, with many others, had long been seeking for her. Stooping down he said:

"Are you there, Elizabeth Woodcock?"

She had strength enough to reply, faintly:

"Dear John Stittle, I know your voice. For God's sake help me out."

She died about half a year afterward, through mismanagement of frost-bitten toes; but it was fully admitted that no one, unless cased in snow, could have lived out those eight days and nights in such a place without food.

The Custom of the Country.

An English lady accustomed to traveling abroad and able to converse fluently in the languages of the countries she visited, recently found herself alone in a railway carriage in Germany, when two foreigners entered with pipes in their mouths, smoking strong tobacco furiously. She quietly told them in their own language that it was not a smoking carriage, but they persisted in continuing to smoke, remarking that it was the "custom of the country," upon which the lady took from her pocket a pair of gloves and commenced cleaning them with benzoline. Her fellow-passengers expressed their disgust at the nauseous effluvia, when she remarked that "it was the custom of her country." She was soon left in sole possession of the carriage.

MORAL AND RELIGIOUS.

Make the Best of Things.

We excuse a man for an occasional depression just as we endure a rainy day. But who could endure three hundred and sixty-five days of cold drizzle? Yet there are men who are, without cessation, sadder and charged with evil prognostication. We may be born with a melancholy temperament, but there is no reason why we should yield to it. There is a way of shuffling the burden. In the lottery of life there are no more prizes drawn than blanks, and to one misfortune there are fifty advantages. Despondency is the most unprofitable feeling a man can have. One good laugh is a bomb-shell exploding in the right place, while spleen and discontent is a gun that kicks over the man that shoots it off. Some must have got into heaven backward. Let us stand off from despondencies. Listen for sweet notes rather than discords. In a word where God has put an exquisite tinge upon the shell washed in the surf, and planted a paradise of bloom in a child's cheek, let us leave it to the owl to hoot, and the toad to croak, and the fault-finder to complain. Take out-door exercise and avoid late suppers, if you would have a cheerful disposition. The habit of complaint finally drops into peevishness, and people become waspish and unapproachable.—*Bygones Weekly*.

The Anchor Watch.

"I often recall," says an old sailor, "my first night at sea. A storm had come up, and we had put back under a point of land, which broke the wind a little, but still the sea had a rake on us, and we were in danger of drifting. I was on the anchor watch, and it was my duty to give warning in case the ship should drag her anchor. It was a long night to me. I was very anxious whether I should know if the ship really did drift. How could I tell? I found that by going forward and placing my hand on the chain I could tell by the feeling of it whether the anchor was dragging or not; and how often that night I went forward and placed my hand on that chain! And very often since then I have wondered whether I am drifting away from God, and then I go away and pray.

"Sometimes during that long, stormy night I would be startled by a rumbling sound, and I would put my hand on the chain, and find that it was not the anchor dragging, but only the chain grating against the rocks on the bottom. The anchor was still firm. And sometimes now in temptation and trial I become afraid, and then praying, I find that away down deep in my heart I do love God, and my hope is in His salvation. And I want to say just a word to you boys. Boys, keep an anchor watch, lest before you are aware you may be upon the rocks."

Religious Intelligence.

Bishop Starkey recently administered the rite of confirmation to Mrs. Sarah Wright, who is ninety-eight years of age, at her home in Newark, N. J.

The new Methodist Episcopal church at Wetmore, Kansas, was dedicated by Bishop Hurst, on his return from the meeting of the Kansas conference.

An English Lutheran church has been organized in Brooklyn, to be connected with the general synod of the Evangelical Lutheran church in the United States.

The "dim religious light" in the highly-arched nave and aisles of St. Paul's cathedral, London, is about to disappear. The building is to be lighted with electricity.

Already since the meeting of the Presbyterian assembly in May last, over seventy ministers have died, many of them prominent workers and leaders in the denomination.

An Oneida Indian preacher said, in a recent sermon, he was thankful that "the Creator did not give the Indian enough language to allow him to be profane without first learning English."

The *Pacific* says, in connection with the meetings of Mr. Moody in San Francisco: "The prospects are that this religious work will move the entire Pacific coast as no other movement has ever done."

The authorities of the Oxford and Cambridge University presses authoritatively announce that the publication of the revised version of the New Testament will take place about the middle of next month.

Although the work of the Salvation army in this country has not amounted to much, the reports from the original headquarters of the somewhat unique organization indicate that on the other side of the water the work prospers.

Judge Macomber, of Rochester, N. Y., has rendered an important decision to the effect that a majority of the church board of trustees, although sustained by a majority of the congregation, cannot carry the society and its property over to another denomination.

One of our unfortunate managers says the season so far to him has been like the Atlantic coast—a succession of light houses.—*Meriden Recorder*.

A Hundred Hours Under Ground.

At Ballwyl, a village near Lucerne, in Switzerland, a well has been sunk and the sides supplied with stone walls. One of the masons, of the name of Xaver Mattman, one day went to the bottom of the well in order to see if the work was done right. While he was down the side walls gave way, but fortunately beginning with the bottom part, otherwise the falling stones must have killed the man at once. As it happened, the stones falling upon him pressed hard upon him, but did not kill him. "The upper part of the wall came down by degrees," Mattman reported; "I heard the noise for about ten minutes, one stone following slowly upon the other. I was pressed with my back against a board, my right arm about my head, the left arm upon my chest, the right leg bent back in the knee joint, the left leg stretched out straight. A big stone was resting on my head, slanting toward the forehead, a big round stone was upon either cheek, a big one just under the chin forcing my head a little upward against the top stone. The biggest and heaviest stone I had upon my chest. Every limb of mine was pressed in tight with stones—a movement, ever so small, impossible. In this fearful situation I stopped from Monday at 4 o'clock in the afternoon until Friday evening at 6—that is ninety-eight hours—at a depth of 100 feet below the surface, and with a load of stone from eighty to ninety feet high resting upon me. My hat was pressed down upon my nose, my pipe was stuck fast in my mouth. The rope which was to have lifted me out passed along upon my chin, mouth, nose and forehead, and may have been my best protection against the stones pressing together upon my head. Upon me was perfect darkness. But my presence of mind did not forsake me, a most remarkable sense of my rescue being quite certain sustaining me in my desperate position and inspiring me with the determination to stand it. I suffered no pain, but very hard pressure, and felt very thirsty. I slept repeatedly. I heard the sound of bells. I also perceived when the labors of rescuing me were commenced. It was a sound like chickens picking corn on a wooden board. The sound becoming clearer made me perceive the progress of the work, although not clearly. When I thought the workmen within hearing I called out to them." Friday at noon the first stone from the head of the man buried alive was removed, at 3 his head and chest were free and he could take something to eat. None of his limbs were broken; there were only some contusions on his body. But the skin was perfectly insensible for a length of time.

Buried Alive Four Days.

Some days ago Mrs. Banks, of Lynchburg, Mason county, Ill., was buried, though some persons present at the funeral thought they saw signs of life in the supposed corpse. A Charleston (Ill.) letter to the *Indianapolis Journal* gives the sequel as follows: The day after the funeral the grave was opened and the casket cover removed, when it was seen that the hands, which had been tied together and placed upon the bosom, were lying by the side. Supposing her to be dead, no further signs of life being visible, they readjusted the hands, closed and lowered the casket and covered up the grave. A few days later friends persuaded the husband to have the remains examined again, which he did, and again found her hands lying by her side, and also her hair disheveled. Still there seemed no signs of life, and the third time the body was covered in the grave. By this time the excitement began to intensify in the community until, on the fourth day after the burial, the body was again exhumed and again the same evidences of protracted life as formerly were plainly observed. The body was taken home, medical aid called, and restorative agencies applied. The last account we have of the case is that the patient is recovering and will probably soon stand before the world a living example of a person who had lain four days in the grave.

One Hundred and Twenty Miles a Second.

When speaking of the spots on the sun, in his lecture, Professor Rees stated that many of them were noticed to revolve with great velocity, some at the rate of 120 miles per second. These rotations are explained by the facts that there are on the surface of the sun cyclones which drift along those large masses of volcanic matter at an indescribable swift rate. It must be remembered that the smallest one of the spots would be covered only by about eighteen earths. When speaking of solar cyclones we must not imagine that they are like the ones we have here on earth. Should a solar cyclone strike the United States, in thirty seconds all the country between New York and San Francisco would be floating away into space in the shape of a vaporous cloud. The terrible friction would ignite everything. One of our cyclones may traverse fifty or one hundred miles in an hour, but a solar cyclone at the rate of 120 miles in a second would do infinitely more damage than one hundred cyclones could do.—*St. Louis Republic*.