

## SCIENTIFIC SCRAPS.

According to *Zeitung*, a valuable fibre for textile purposes is obtainable from the young growth of the poplar tree, by a simple process of extraction.

According to Dr. H. Gradle, the progeny of one of the microscopic beings known as bacteria may, with plenty of food, amount to over fifteen millions within twenty-four hours.

Russian geologists consider the granites of the Dnieper to have been formed by the action of water instead of having had the igneous and eruptive origin usually assigned to such rocks.

It is denied by Semidt Muhlheim that the formation of part of the milk obtained from a cow begins with the process of milking, and that the udder is too small to give room for all the fluid to be obtained at one milking. On the contrary, the most thorough effort will leave some milk in the ducts, whence it is driven into the milk reservoirs by the newly-formed secretion pushing from behind, and which may be obtained after the lapse of an hour from the time the milking began.

The Granton quarry, on the east coast of Scotland, admits the tide, so that at high water the inlet has a surface area of about ten acres and a depth of sixty feet in some parts. The mouth of this inlet is to be so closed that fishes and other marine animals may be unable to pass through it, while the circulation of the sea water will remain unobstructed. The enclosure will form a natural aquarium, which is to be stocked with marine life of all kinds. A laboratory for students is to be placed on a barge anchored in the quarry, additional quarters being provided in a cottage on shore. This curious scientific aquarium is being established under the auspices of the Scottish Meteorological Society.

### A Mexican "Gentleman."

A Mexican gentleman would no more be seen carrying a bundle of any size than he would a hod upon his back, says a Monterey correspondent. I am confidently informed, on good authority, that it is no special humiliation to carry a book, provided it is a small one, and is not wrapped in paper, but there they draw the line. Some gentlemen occasionally condescend to call at the post office for their mail, but generally all such onerous duties are delegated to the servants. Therefore the smallest family must maintain a retinue of "mozos" and "creados" (servants)—which perhaps is well, in the grand economy of the whole, since the serfs far outnumber the masters in Mexico. A gentleman never travels from town to town, on business or pleasure, without one or more mozos in attendance. When he disports himself on horse or mule back, his mozo rides—just so many paces, no more, no less, behind him. In fact, every duty in life is done by his servants. The most high toned "F. F. V." in ante-bellum days was never more waited upon, and African slavery, in most respects, was preferable to this serfdom, for the blacks were at least sure of enough to eat, and of being cared for in sickness and old age. A Mexican creado considers himself in receipt of a princely income if paid "dos reales" (25 cents) per diem for his services, out of which he clothes himself and supports his family. Gentlemen who are not house-keeping, and therefore cannot feed their servants on the refuse of the table, frequently pay a valet six cents a day, which is sufficient to buy all the tortillas and red beans he requires for food. As for other necessities, he beds himself in his master's cast-off clothes, than which Solomon in all his glory was never so arrayed, depends upon his own light fingers for the indispensable cigarettes, and sleeps at night, rolled up in his sarape, on the hard stones of the court, with the blue sky for a counterpane.

### What He Was In.

"Mr. White," said a lawyer to a witness in the box, "at the time these papers were executed you were speculating, were you not?"  
"Yes, sir."  
"You were in oil?"  
"I was."  
"And what are you in now?"  
"Bankruptcy and the poorhouse!" was the solemn reply.

## Insects in Bricks.

Having occasion in San Francisco to examine a brick that was taken from an old ruined and forsaken building which was being torn down to make room for a handsome business block, a reporter was somewhat startled upon adjusting a microscope to see each pore of the brick inhabited with a peculiar rod-like animalcule of the genus bacilli. As these insects cannot be seen other than by the microscope, even when they live in the human system and prey upon our vitality, neither are they visible in the soil or substance in which they may live and hibernate, except by a powerful glass. Their motions when exposed to blows were as the link of a chain, reminding one of a system of joints to be extended and contracted. They were semi-transparent, with a slight, scintillating column nearly two-thirds their length, extending from nearly their head to their pointed tails, probably their spinal column. As this brick was from the foundation and being underground and next to the street sidewalk, it illustrates forcibly the fact that however hard burnt and well made, porous substances should not be put underground for foundations or sewers. Solid rock, or concrete, or terra cotta are the only proper building materials below the level of the sidewalks.

## Chicory Farming.

Chicory farming promises to be one of the coming industries of California farming. Chicory was first planted in that state about fifteen years ago, but since that time it has been extensively raised on the San Joaquin and Sacramento rivers. Chicory is cultivated on a small scale in some of the eastern states, and in some places in that section grows wild in abandoned fields and orchards. It grows very thrifty on the bottom lands of Louisiana and Texas. The root of the plant, when being prepared for use, is cut by a machine into small square blocks, then placed in the sun to dry, afterwards roasted, and finally ground in a mill. Chicory possesses few elements in common with coffee; and yet it imparts a taste to it greatly fancied by certain coffee drinkers in Europe. In France and Belgium, the common people have been so accustomed to chicory with the coffee they drink that they prefer it so prepared, to the beverage in its pure state. Travellers in those countries, even when they purchase pure coffee for their private consumption, find that the cooks will mix chicory with it, even after having received strict orders to the contrary.

## A Monstrous Serpent.

A snake so huge as to suggest the suspicion that the sea serpent has temporarily deserted its native element, has been discovered in the Witzenberg mountains, in South Africa. A resident, who went out to shoot rock-rabbits, was sitting quietly waiting, when suddenly, from a large opening in a rock close by, he heard a great noise among these animals. He sat still, wondering what it could mean, when presently an enormous snake appeared. He describes it as being scaly, and having a head like a good-sized calf, a neck about two feet and a body of about six feet in circumference, its length about twenty to twenty-five yards. He saw the reptile first draw its hind body forward, then, raising the front part of its body to the height of about fifteen feet, it gradually raised itself over a large krantz and disappeared. He thought of firing, but, his gun being loaded with very small shot, he was afraid of drawing its attention upon him. He also asserts that he was within fifteen or twenty yards, and had a good view of the snake for about five minutes. A party of hunters went out from the village the ensuing day to hunt the snake, but did not find it, which perhaps was not very surprising.

## Sam Patch's Big Jumps.

The first of Sam Patch's four celebrated jumps was made October 6, 1829, at Niagara Falls, from a rock seventy feet above the water; his second was from a scaffold at the foot of Biddle staircase, on the seventeenth of the same month, the distance being 100 feet. His next was at Genesee Falls on November 6, same year, and his fatal plunge was at the same place on the thirteenth of the same month, the distance being about 120 feet. At this last jump he was so drunk that it was with difficulty that he could stand straight.

## UNDER WATER.

### A Diver's Experience With Sharks and Other Creatures of the Vasty Deep.

Harry H. Ballard, of New Orleans, one of the eighteen marine or salt water divers of the United States, was found confined to his room in the pay ward of the Cincinnati hospital by an attack of inflammatory rheumatism, caused by exposure as a diver.

"Did you not fear the sharks in your diving expeditions?" asked an *Enquirer* reporter.

"That is a subject about which there is a great deal of humbug. Old sailors with lots of idle time on their hands love to spin yarns about the ferocity of sharks. The shark is a cowardly fish. He never attacks you unless you provoke the quarrel. I have met thousands of them and had them swim all around me, with their horrid, glassy, deathlike eyes glaring at me and their huge mouths under their belly snapping as though ready to swallow me. The noise that the air makes roaring into the shells frightens them and then they see that the man is moving about. At Callao harbor, which is a regular sharks' nest, I went down forty feet or more and met lots of these ocean devils, but none of them offered to molest me.

Divers have various expedients for avoiding these animals, and one was told me on the Peruvian coast. A diver was at work on the wreck of a Spanish man-of-war in West India waters. A safe containing \$3,000,000 was the object of his search, and after hours of patient labor the treasure was found. While he was shackling heavy iron chains to the treasure box a dark shadow, long and motionless, suddenly attracted his attention. Looking upward he saw a huge spotted shark, twenty feet long, poised above and watching every movement as a cat does a mouse. The diver for got about the \$3,000,000, and walking a short distance, was on the point of signaling to the tender to pull him up, when a glance convinced him that it would be sure death. The shark watched his every movement, and with a scarcely perceptible movement of his tail, overshadowed his victim with its huge proportions. Never before had the diver more need of coolness and nerve, together with his wits about him. He spied a long layer of mud close at hand, and he moved toward it. The shark followed, gliding stealthily toward him, while a thrill of horror ran through his veins. With an iron bar he stirred the mud, which rose thick and fast above him; the clear, golden light of the water disappeared, and the diver escaped.

"The only scare I ever had with a fish was when I first went down off the South American coast. I had a great big crowbar in my hand, which perhaps fell about a foot or eighteen inches below my feet. Just beneath me lay a huge cuttle-fish fast asleep. Of course I did not see him, and the crowbar went clear through him. The cuttle-fish has a peculiar mode of attack. He discharges a black humor which makes the water look like ink. The first thing I knew it was so black all around me I could not see my hand before my face. I couldn't imagine what had broken loose and I signaled to pull me up. The natives all laughed and told me it was only a cuttle-fish. Not long after the cuttlefish was worked ashore and there was my crowbar gone clear through him."—*Cincinnati Enquirer*.

## Opium Smokers.

Most authorities agree that the first opium smoked by a white man in America was consumed in California but there is a division of opinion as to when the vice was introduced. Dr. H. H. Kane of New York, who has given the subject careful study, says that in 1868 the practice was begun in the United States by a California "sport" named Clendyn, but Dr. Allan McLane Hamilton says that he saw white smokers in San Francisco joints long before that time. The habit traveled rapidly Eastward, and reached New York in 1876. In Park, Mott and Pell streets among the Chinese the first joints were opened. Now more than 6000 Americans are said to be slaves to the habit of opium smoking.

There are Indian girls in the Indian territory university who are studying German, French, Latin and Greek, geology, moral philosophy, political economy and other branches of the college course.

## Trichinae.

This word—the plural of trichina, has its accent on the second syllable. It is from a Greek word meaning "hair" and is the name of the hair-like worms sometimes found in the human muscles. The word "spiralis" is generally attached to it, and refers to the manner in which the parasite lies curled up in his tiny capsule.

When fully grown, it would take eighteen of the males, placed end to end, to make an inch. The disease to which they give rise—at first often mistaken for muscular rheumatism—is called trichiniasis, sometimes trichiniasis.

It was not until 1835 that the parasite was found in man. During the next twenty-five years it was proved that there was a connection between the disease in man and that of a hog; and in 1867 the parasite was found in the muscles of the latter. Whence the hog has derived it is an unsettled question.

As long as the hog lives the parasite remains dormant in the animal, like the chrysalis of the butterfly. But when the hog's flesh is eaten, the tiny capsules then are dissolved by the digestive juices, and trichinae are set free.

A single meal may introduce many thousands of them—over a million, says one writer—into the stomach. Thus introduced they live from five to six weeks in the intestines, each one producing meanwhile a brood of at least one thousand five hundred. The latter soon migrate towards the muscles, following the course of the blood-vessels and nerves, and reaching their goal about the tenth day.

Here, in five or six months, they pass into a sort of chrysalis condition, to be freed from it only by the gastric juices of some other being. Similar migrations may follow, wave after wave. More or less, however, are swept out of the intestines, possibly to find their way back to their ancestral home in the swine.

The trichinae have been found in every land. They have also been detected in the cat, dog, rabbit, rat, mouse, marmot, the wild hog of Europe, and even in the hippopotamus.—*Youth's Companion*.

## Plain Russia.

Russia is so destitute of striking geographical features that there would seem to be no reason why a great city should spring up at one spot rather than at another. For hundreds, nay, for thousands of miles together, it is one dead level, one vast ever-extending plain, bounded only by the horizon, which it seems to cut in a straight line, as in the contact between sky and ocean. The sun sets behind this level expanse as it does at sea. Look over the intervening space into the far distance and the illusion is complete. You might fancy yourself in the midst of the Atlantic in a calm. Even the Ural Mountains are said to be a geographical imposture. There is a general elevation of the surface of the country, but no breach of continuity, no vast or even perceptible upsetting. In such a country a little hill has its value, and the Kremlin is a little hill thrown up on the serpentine and picturesque but shallow Moskwa. The spot has also the political recommendation of being situated as nearly as possible in the centre of old Russia—that is, of Russia as it was before its enormous extension eastward.

## One and Nothing Make Three.

A Cartersville, Ga., justice of the peace married a couple recently, and the groom asked him his terms after the knot was tied.

"Well," said the justice, "the code allows me \$2."

"Then," said the young man, "here is \$1, that will make you three."

## President's and Printer's Ink.

People who disbelieve in the value of printer's ink as an advertising medium, should note how ready the statesmen of the country are to use it when these is a nomination to be made for the presidency. Printer's ink is a good enough advertiser for the early presidential aspirant.—*Milwaukee Sun*.

A crank went into the Sunday school at Unity church, Des Moines, on a Sunday morning, with his arm ornamented with a live garter snake twined about it, and seated himself in the Bible class.

## VISIT TO A HAREM.

### What the Wife of a New York Minister Saw in One.

The ladies of the literary society of the Madison Avenue Congregational church, New York, listened in the church lecture room to a description by Mrs. John P. Newman, the wife of the clergyman, of her visit to the harem of the pasha of Hillah, Babylon. Mrs. Newman's visit was made ten years ago, when she was traveling with her husband, who was not permitted to accompany her into the interior of the harem.

"The gates of the 'Abode of Bliss,'" said Mrs. Newman, "closed instantly after I entered the building. A long corridor opened into the main apartment of the harem. It was furnished with gorgeous tapestry hangings, and sumptuous satin furniture of curious design. The curtained windows looked out upon blooming gardens. Ranged about the chamber in various attitudes were a score of women. Some were seated on divans and some were kneeling. Thirteen of them were the wives of the pasha. A cloud of negro servants attended to their wants. I could speak but a few words of Arabic, but we were at home on the subject of dress, which has a universal language of its own among women. All the women had large, long-lashed and lustrous eyes, and dark, finely chiseled features. Their costumes were magnificent, and strangely fashioned of rich satins and loaded with ornaments of gold and jewels and garlands of pearls. Their head-dresses were of silken gauze, held by bands of gold, and surmounted by graceful ostrich feathers. They wore silk trousers and silver slippers, and their finger nails were tinged with yellow. To an elderly lady, very queenly in her movements, implicit obedience was yielded by the others. The air of the apartment was heavy with the perfume of sandal wood. A crowd of colored servants brought in cigarettes and sweetmeats and coffee, and of these delicacies I was pressed to partake.

"The eating of these dainties and gossiping with each other the whole day long is the sole occupation of these women of the harem. They live in luxurious bondage, in blissful ignorance of the outside world. I longed to reveal its beauties and possibilities to them, but could converse only by gestures. Before I left, a baby pasha was shown to me. Its mother looked like a veritable 'Sleeping Beauty.' The babe was wrapped in folds of fine linen, and its wardrobe consisted of over fifty different articles of apparel. The interest shown in the baby and the mother by the other women of the harem was to me a beautiful evidence of the universal sisterhood of women."

## Long Finger Nails.

According to the writer of an article on "Extraordinary Finger Nails" in the *World of Wonders*, it is the custom of the Chinese, Siamese, and Annamese to allow the nails on all their fingers, except the fore finger, to grow to a great length, and among the former they sometimes attain the incredible length of from 16 to 18 inches. Among the Siamese so distinctive a mark of nobility are long nails esteemed that the belles and beaux wear silver cases, either to protect their nails or else to make people believe they are there, whereas in reality they are not. As regards the little finger, the writer tells us that "Ambassadors and visitors of distinction from Asiatic states to Europe are often observed to permit the excessive growth of the nail of the little finger, and this is also a common occurrence with many of the people of India and other parts of Asia."

Scientific men of all nations are invited to compete for the Volta prize—30,000f. or \$6000—of the Academy of Sciences, Paris, which will be awarded in December, 1887. This prize was founded by the decree of June 11, 1882, and is for the discovery or invention of whatever shall render electricity applicable economically to one of the following objects: Heat, light, chemical action, mechanical force, the transmission of messages, or the treatment of sick persons. No attention will be paid to what may be sent in by candle, dates later than June 30, 1887.

The United States uses 75,000,000 pounds of tea a year.