

SCIENTIFIC SCRAPS.

Electrical motors are to be introduced on the underground railways in London.

A paste of chloride of lime and water well rubbed in will take ink stains from silver or plated ware. Wash and wipe as usual.

The pendulum governor for steam and gas engines has appeared in this country. It has only one ball, is not rotary, and consumes no power in driving.

A hitherto uncharted island, two miles long, is reported to exist in latitude 8 deg. 15 min. south, longitude 130 deg. 39 min. east.

Portions of the Andes seem to be sinking, the altitude of Quito having diminished 76 feet in 122 years, and that of another peak 218 feet. A crater has sunk 425 feet in 25 years.

The telephonograph consists of an apparatus for recording in legible characters articulated and musical sounds. It has a flexible diaphragm to be vibrated by the impact of sound waves and to vibrate an ink-discharging pen, which marks upon a paper ribbon.

It has been found that old crowbars made of the best Swedish iron and used by the early settlers of New England, have become so rotten that they could not be welded together when broken, and had an offensive smell when the welding heat was applied.

At a recent meeting of learned men in Berlin it was said as a fact that when a bee has filled his cell with honey and has completed the lid he adds a drop of formic acid which he gets from the poison bag connected with the sting. To do this he perforates the lid with the sting. This acid preserves the honey.

A writer in Science comes to the conclusion that, as a result of his investigations, "it seems idle to discuss further the influence of forests upon rainfall from the economic point of view, as it is evidently too slight to be of the least practical importance. Man has not yet invented a method of controlling rainfall."

A veteran of the late war, who resides at Croyden, N. H., claims to have invented a new engine of war, which he calls a "Time Torpedo." It has no clockwork and no chemicals, but by a subtle combination of forces known to every schoolboy the charge explodes at any given time, varying from two minutes to two weeks.

The statement has recently been made by a practical iron worker of fifty years' experience, that not only does the metal rot from age, but that continual jarring has the effect to weaken the tensile strength, an illustration of a familiar kind in this line being afforded by the step of a carriage, which, when new, may be bent back and forth without breaking, but after a few years' service will certainly break no matter how well preserved.

Professor Morgan caught a scorpion and pierced it in three places with its own sting, on which in each case there was a drop of poison, but the creature remained alive and active. But these and subsequent experiments led him to believe that the poison has some effect, causing sluggishness and torpor for a while. He also agrees with Professor Bourne, that it is possible for a scorpion to sting itself in a vulnerable place.

Messrs. C. H. Hartwig and G. Hunter have recently succeeded in reaching the crest of the Owen Stanley Range, in British New Guinea. They had some difficulty to overcome the opposition of the tribe which guards the great mountain, Paramagero, which the natives believe to be the abode of the spirits of the departed. Eventually they were placated, and two hundred of the tribe followed the expedition in the ascent.

A method, claimed to support electric wires above ground in such a way as to practically evade the dangers and difficulties of the old pole system, as well as the expense and inconvenience that attend most of the proposed underground remedies, is the tower system being introduced in New Orleans. The towers are to be quadrangular, and where placed at the corners of streets their legs are at the street corners. A pipe of suitable size is to be permanently fixed upon each tower for fire purposes. There are to be about 890 of these towers in New Orleans, 300 to 400 feet apart. Their height is to be from 125 to 150 feet.

PERILOUS WORK.

The Skillful Manner of "Cutting Out" Cattle on Ranches.

Feat of Roping and Branding as Performed by Cowboys.

"Cutting out" the cattle is perhaps the most picturesque and exciting part of the cowboy's work. The foreman of an outfit rides up to a herd, and stations several of his men to hold the cattle in check, while two or three of the best, or "top men," proceed to "work the herd" or cut out the desired cattle. The men who are to cut out the cattle commence to move around in the herd, and after singling out an animal, urge it slowly to the bunch. Then it is run off, without being given a chance to turn back, to one side, where it is held by one or two riders; all the other animals cut out being driven to this point. The bunch thus formed is called the "cut." As soon as all the cattle desired by this outfit are cut out, they move on to another bunch, taking along their "cut." In this manner all the cattle are worked by the different outfits.

The work of cutting out cattle is an exciting and dangerous one to the rider. The cow horse upon which he is mounted is generally well trained, and dodges the steps of the animal which he is separating from the herd with great precision, until the "cut" is reached. The dodges often make it difficult for the rider to maintain his seat, and as the horse is nearly always going at a rapid rate, his maneuvers would seem almost incredible to one unacquainted with the work. No matter how quick or in what direction the "critter" turns, the cow horse and his rider are always at his heels and can turn him in any desired direction. A slight touch of the rein across the neck is sufficient to turn the horse instantly; by pulling the right rein across the neck the horse is made to turn to the left instantly, and by pulling the left the horse turns to the right. The quickness with which a cow horse turns cannot possibly be conceived by one who has not seen it done. An idea may be gathered, however, from the fact that some horses, going at full speed, can be stopped and turned in a space as large as an ordinary blanket. Very often in the work of cutting out, the horse, while going at a rapid rate, steps in a prairie dog hole or in some other way stumbles and falls. Riders have been painfully and even fatally injured in this way.

The cattle which are cut out on the general round up are, for the most part, the cows with young calves, as the calves all have to be branded and ear marked. Some are stray cattle belonging on other ranges, which have drifted away during the storms of the previous winter. The strays are gathered by the "reps" or representatives of the outfits in the district to which the cattle belong, and put in the round up cavy (the herd which is taken along with the round up). At the end of the round up the "reps" take the cattle belonging to their employers back to their proper range.

When the herds have all been worked, the cattle which are not wanted are turned loose, not to be molested again until the next round up. Each outfit then proceeds to brand its calves. If there is a corral handy, the cattle are driven into it for this purpose. If no corral is at their disposal, the bunch is held in check by riders stationed around the edge of the herd. A fire is built, the branding irons are put on, and when they become sufficiently heated the work commences.

One or two men, mounted on their best roping horses, enter the inclosure and commence to rope the calves. Each one is caught by the hind legs, which is called heeling. As soon as the noose tightens, the roper winds the rope several times around the horn of his saddle, and drags the calf near the fire. There it is pounced upon by an employee who rolls it over to have the right side for branding uppermost. Placing one knee upon the calf's neck he doubles up one of its fore legs with his left hand, and catches its nose in his right. Then the roper turns his horse to face the calf, and the steed, seemingly knowing what is expected of him, backs off, drawing the rope taut and holding the calf securely. In this position the calf is branded and ear marked.

All this is done in much less time than it takes to tell of it, and the operation is repeated until all the calves are branded and can ever afterward be identified wherever found.

The day's work on the general round up is nearly finished when the "circle" has been made, the cattle worked and

the calves branded. Very often this work keeps all hands busy until night, but sometimes it is finished early in the afternoon, and the rest of the day is devoted to rest. Where cattle are very numerous two circles are made in a day, one in the morning and one in the afternoon.—[Golden Argosy.]

How Coffee is Served in Mexico.

It is cool even in mid-June up among the mountains of western Mexico, until the noonday sun begins to scorch. You go down stairs, and, quite self-reliant in your acquaintance with Mexican hotels and at ease with your few weeks' experience in every-day Spanish, you find your way at once to the dining room, a long room with one long table, nearly the entire length of it, and splint-bottomed chairs arranged on either side.

The waiter comes in on a full trot from the kitchen away back somewhere. You can hear him clattering along the paving of the court long before he reaches the door. He is tying on a once white apron as he presents himself and asks with little ceremony:

"Cafe, senor?"
"Si," you reply, and the waiter goes pattering back into the mysterious region from which he came. You know from past breakfasts what will happen, or at least you think you do. In the course of five or ten minutes the waiter will come back, this time at a more moderate pace. He will have two steaming tin pots, one in each hand, held by long handles so as not to burn himself. Standing behind you he will lean over and pour into the big delf cup coffee as black as ink, but possessed of a wonderful aroma, which arises in the steam. It is the essence of the coffee berry. No chicory or roasted peas. You know about how much of this Mexican coffee your nerves will stand, and you raise a warning finger. The coffee pot tilts back and the other pot comes forward. It is full of milk, boiling hot, and the waiter pours until the cup is brimming. This is the way coffee is served Mexico over, except at Patzcuaro.—[Globe-Democrat.]

Celebrated Smokers.

Jackson was an inveterate smoker. Grant used to smoke fifteen cigars a day. Leopold Morse of Boston always has a cigar in his mouth, and Vice-President Colfax smoked daily his fifteen cigars. David Davis smoked all his life. Senator Kenna is a great smoker, Senator Conger smokes three cigars daily and Allison is by no means averse to a good cigar. The Prince of Wales smokes cigars and it is said that Gladstone smokes a pipe. Edwin Booth is a pipe-smoker and Tennyson, Thackeray and Bulwer were always fond of the weed. Charles Lamb is said to have used very poor tobacco, and Isaac Newton lost his sweetheart through his absentmindedness in using his fingers as a tobacco stopper. Pope, Swift, Bolingbroke and Congreve were addicted to snuff, and Frederick the Great had a snuff pocket made in his vest to satisfy his cravings. Gibbon, the historian, was a confirmed snuff taker, and Byron sang the praises of tobacco. Milton, Locke, Raleigh, Isaac Walton, Addison, Steele, Robert Burns and Walter Scott all used tobacco, and Prescott was very fond of smoking. It injured his health, however, and when his physician limited him to one cigar a day he ran all over Paris to buy the biggest one he could find.—[Commercial Advertiser.]

Bright Sayings.

One little girl describing another's party costume had arrived as far as her shoes, when she said, "And don't you believe, mamma, her shoes were so tight I could see all the knuckles on her toes."

John, aged four, was playing on the sidewalk with his little brother. Presently he came in and said in an indignant tone:

"Mamma, a lady asked if we was twins, and I said, 'No, we isn't twins; we's boys!'"

The same little John witnessed a military drill.

One of the officers rode a horse which was very unruly, and in some of his antics nearly threw his rider, whereupon John exclaimed, excitedly: "Mamma, mamma, Mr. Fissel's horse doesn't fit him!"—[Youth's Companion.]

Dangerous in Leap Year.

Gus: "So you really think of going to Boston for a couple of weeks, Jack?"

Jack: "Yes."

Gus: "Heavens! dear boy, you will have to be careful."

Jack: "Why, is Boston a dangerous place?"

Gus: "Dangerous? I should say so. Don't you know this is leap year?"—[Epoch.]

THE ROTHSCHILDS.

The Richest and Most Powerful Family in Europe.

From Humble Origin to Highest Social Eminence.

The Rothschilds are said to be the richest family in the world. They have banks in the leading capitals of Europe, and kings and governments are among their customers. The Paris branch of the banking firm is said to keep a capital of \$300,000,000 at its command, and hardly a war is begun in Europe for which the funds are not furnished by this family. Still five generations ago the blood which now rules these millions was selling old clothes in the Jewish quarter of Frankfort-on-the-Main, and when Madison was president the first Millionaire Rothschild died, leaving only \$5,000,000.

I once visited the home of all the Rothschilds at Frankfort, and looked at the little banking-house where years ago Anselm Meyer Rothschild began to take articles on pawn and to shave notes for so much per cent. It is in the dirtiest part of Frankfort, and it has about the same surroundings as Five Points, New York. The street is dirty, its inhabitants are second-hand clothiers, and it bears much the same aspect now as it did when the mother of all the Rothschilds gave birth to the financier who laid the foundations of this immense wealth. The Rothschilds own their old property here to-day, and their bank still has a branch here.

When Anselm Rothschild died leaving this \$5,000,000 to his five sons he made them promise to keep the fortune in the family and carry on the business together. They kept their oath, and it is this policy that has been the mainspring of their success. Through generations they have worked together, married together, and their millions have bred faster than their families. One of these boys stayed at Frankfort, another went to Paris and established a bank there, a third, Nathan, settled in London, a fourth settled in Vienna and the fifth opened a bank in Naples. All of them made money very rapidly, and Nathan at London made his millions breed faster than Australian rabbits. He went to the continent during the Napoleonic wars and from the knowledge there gained speculated on the rise and fall of stocks. He witnessed the battle of Waterloo and by relays of horses and a fishing-smack reached London in advance of all other messengers. The telegraph was then unknown and his news was the first brought in. The news he gave out was that Napoleon had conquered, or at least this was the news that was spread all over London after his arrival. Stocks went down like shot and Nathan was offered loads of them. He refused to buy but had his agents purchasing all the time. The next day the true news came and stocks jumped upward. Nathan Rothschild made, it is said, \$5,000,000 by the deal.

The Rothschilds hold high social positions in the various countries of Europe. They have nobles among them, and their money has bought them titles. They are a family of intellectual and artistic tastes, and with all their wealth they have been somewhat charitable. The idea prevails among the Israelites that it is their intention at some future time to buy Palestine and give it back to the Jews, and they have already established hospitals at Jerusalem. Some of them have been horse lovers and a Baron Rothschild owned Favonia, one of the famous horses that have won the Derby. They believe in enjoying their wealth and like to have nice things about them. One of the Frankfort Barons not long ago paid \$160,000 for a silver cup which he wished to use as a centre-piece of a table service which he was making up, and one of the Vienna Barons has a stable which cost \$80,000. This stable has marble floors, encaustic tiles painted by distinguished artists, and its walls are frescoed with scenes done by well-known painters. The rings, chains and fittings of the stable are silver and one box stall for a favorite horse cost, it is said, \$12,000. The income of the owner of this stable is about \$5000 a day.—[Washington Post.]

The Philosophy of Etiquette.

"Is it now considered ill-bred to take the last biscuit off the plate?" queried Richelieu of Waggley.

"Well, no, but it is decidedly unwise."

"Unwise?"

"Yes; always wait a minute, and they'll bring on some hot ones!"—[Detroit Free Press.]

Amputated His Own Leg.

Surgery being under discussion the doctor recalled one instance that came under his notice when practicing in a little town up the Wisconsin Central line. A woodsman was caught by a falling tree, and one of his legs was pinioned between its heavy trunk and that of a brother monarch. There it was held as if in a vice, just below the knee. The unfortunate man was alone, and too far from the nearest camp to make his voice heard. His axe had been dashed from his hands, and he could not reach it. Night was approaching, and hungry wolves were commencing to howl about him. He recognized that to remain there was to die. The weather was growing bitter cold, and he already felt a warning numbness. He knew that in his condition and situation he could not fight the wolves, and the prospect of becoming a helpless victim of their ravenous attacks nerved him to desperation. Removing his suspenders, and binding them as tightly as possible about his imprisoned leg, he inserted the blade of his jack-knife at the knee, cut away his clothing and flesh, and severed the joint. The operation proved successful, and he raised himself from the deadly trap, leaving the lower limb as a ghastly evidence of his cool determination to execute desperate measures as against the grim certainty of dissolution that would attend a lack of effort. He managed to crawl to his axe, with which he cut a sapling and made a rough crutch. With its aid he made his way slowly to camp, nearly four miles distant, frequently lying down in the snow for rest. It was a long and very painful journey, and he hobbled into camp just as his strength was about to give out. Medical attendance was secured, and the self-amputation was given proper dressing. The man is still alive, and the detailed statement from his own lips, of what he suffered physically and mentally during his experience in that relentless tree-clasp, and of the thoughts that nerved him up to carving his own leg, are of an exceptionally thrilling nature. The morning following the injured woodman's arrival in camp, some of his companions, following his tracks, visited the spot where he met with his accident. The wolves had been there, torn the covering from the foot and leg and gnawed away the flesh, leaving a smooth polish on the bones.—[Fond du Lac Reporter.]

Craving for Quinine and Opium.

Mr. John Ferguson, a well-known resident of Ceylon and newspaper proprietor, has addressed a letter to the secretary of the Anti-Opium society on the value of sulphate of quinine, or even the inferior alkaloids from cinchona bark, or prophylactics and tonics, especially in low-lying and malarial districts, where people are addicted to the use of opium in order to relieve the fever depression. The prevalence of the opium craving in many parts of the world is due, says Mr. Ferguson, to the people being subject to a low type of fever. This is largely the case in China. In England it has been shown that the consumption of opium, chiefly in the form of laudanum is very large in the fen districts and along the lower banks of the Thames, especially about Gravesend.

A Lincolnshire village druggist stated some years ago, in a letter published in newspapers, that he sold about two gallons of laudanum per month, retail, besides sixteen or twenty ounces of opium itself, mostly to women of the poorer classes who must pinch themselves seriously in many ways to purchase the luxury. Many, he said, consume an ounce of opium a week, some considerably more. The main cause of this craving, according to Mr. Ferguson is that the people live in low and malarial localities and he suggests that quinine removes the craving and acts as a substitute for laudanum. He quotes from Mr. Colquhoun's travels in China to show that the Chinese, even in the remote inland districts along the Canton river, know the efficacy of quinine in superseding the need of opium and possibly in curing the taste and desire for it.—[London Times.]

Effacing a Hated Brand.

W. B. Prosser, the aged sheriff of Moore county, Tenn., told a Nashville reporter recently that during the time he has held office he has frequently branded murderers with the letter "M" in the palm of the hand or on the forehead, and has seen the criminal succeed in almost effacing the hated symbol from the hand with his teeth. He says that in the earlier days of Tennessee it was the custom also to crop the murderer's ears and give him thirty-nine lashes.