

GREAT CALCULATORS.

ARITHMETICIANS WHO HAVE PUZZLED THE WORLD.

Marvelous Mathematical Feats of Jacques Inaudi—Zerah Colburn's Prodigious Work with Figures.

The last century and a quarter has produced more prodigies to puzzle physicians, philosophers and teachers than any other corresponding period of time in the world's history, so far as we of the present know.

The recent marvelous mnemonic and mathematical feats of Mons. Jacques Inaudi, the Piedmontese peasant, who for six months past has provoked the wonder and admiration of Parisian savants, have recalled the wonderful performances of some other prodigies who have lived and died since this old world has swung into the nineteenth century.

Inaudi is twenty-five years of age. He was born of poor, peasant parents, who are yet living, on October 13, 1867. His family are of the lower class, one brother being a waiter in a cafe, another tends sheep for the farmers near his home, while a third is a cobbler. The little Jacques began by counting his sheep when he was only six years old, and before he had ever heard of a number or a letter of the alphabet. He began counting naturally, just as though he had known all the numbers from one to one hundred all the years of his little life.

Strangely enough, the little shepherd did not begin by representing his computations in a material way, by adding on his fingers or counting by pebbles. He does not remember that he was ever taught the multiplication table. He learned by ear the names of the numbers up to one hundred, and he began to advance with the acquisition of this knowledge to such a remarkable degree that by the time he was seven years old he could execute the multiplication of numbers containing as many as five figures almost instantaneously.

At this period began the romance in the life of the Piedmontese peasant boy. An older brother saw case and cash in a barrel organ and equipped with one and accompanied by young Jacques and a monkey, he started for Provence. But the young mathematician was a greater curiosity to the country folks than the monkey. For an extra coin the youthful prodigy would stand up before a crowd of gaping rustics and solve problems in ten seconds which required a half hour for the village schoolmaster to master. In the large towns he would solve problems submitted to him by the customers in cafes, and he occasionally earned an honest franc by helping the country merchants with their accounts. Then a French Barnum got hold of him and for the following four years he travelled through Europe giving two exhibitions of his wonderful power daily.

At last he came to Paris. This was in 1880. Dr. Broca, the celebrated anthropologist and savant, obtained possession of him, and introduced him to the fellows of the Anthropological Society, where his wonderful talent attracted the widest attention. But the boy was too young to make himself understood; he could not explain his system of computation, and hence he did not attract the attention in the outside world which he is doing at present. Then he could neither read nor write, could not even make the figures which his wonderful brain conjured with, to the astonishment of everyone.

Now, at the age of 25, Inaudi can both read and write. In other respects his education is limited, rudimentary in fact, but, despite this, the young man is bright, to a certain extent witty, is a clever billiard and card player, and can talk agreeably on almost any subject. In this respect he is not merely a calculating machine; he is a man possessed of a wonderful gift, which he does not even fully appreciate.

The method by which Inaudi performs the operation of calculating is only partly understood. He adds, subtracts, multiplies, divides and extracts the roots of numbers. He goes further, for he can resolve problems in arithmetic which are equivalent to equations of the first degree. And all of these are mental calculations. The method he usually employs is as follows:

When a problem is given to him orally he repeats it over to himself audibly, then apparently having stamped it on his brain through the medium of his ear he declares himself in readiness and immediately begins his solution. Nothing can distract his attention once he begins. He talks rapidly and in a whisper to himself as the work proceeds, snaps his finger, opens and closes his hands, puts one hand to his forehead, and traces imaginary lines on the palm of his left hand with his right index finger.

But here is the remarkable feature of this man's work: He will engage in conversation, answer questions and perform undisturbed the most astounding feats of mental arithmetic amid all the noise and tumult of the street, or on the stage of a public exhibition. Where he maintains a conversation during the solution of a problem the result is a little longer in being reached—that is all. He never makes a mistake because he proves every result in his mind before he announces it.

Among the feats of mental calculation performed by Inaudi are the following: He adds in a few seconds seven numbers of eight or ten figures each. He subtracts one number from another each composed of twenty-one figures in less than a minute, and he will find just as rapidly the square or cube root of numbers consisting of from eight to twelve figures. If these numbers are perfect squares or cubes, it requires a longer time for the latter providing there is a remainder. He finds almost instantly the sixth or seventh root of large numbers. This question was asked him: "How many seconds are there in 18 years 7 months 21 days and 3 hours?" The answer was given in just thirteen seconds.

In effecting a multiplication he follows a method of his own. He decomposes a complex multiplication into a series of simple ones. The following figures will illustrate the process. The number

325 is to be multiplied by 638. He calculates thus:

370,000—180,000
35x600—15,000
300x30—9,000
300x8—2,400
25x30—750
25x8—200

In fact, he makes six multiplications instead of one. He begins at the left, consequently with the greater numbers. In other cases he completely alters the problem given him. For instance, instead of multiplying by 587, he multiplies by 600, then by 13, and subtracts the second product from the first.

The French Academy investigation of Inaudi revealed another remarkable thing. Other prodigies in mathematics have taken as the base of their mental operations the visual memory. At the moment when a problem is given them they have an interior vision of the numbers, and during their progress of solution the figures appear on their minds as if written on a blackboard. This method was followed by Colburn and Monge.

With Inaudi it is wholly different. He affirms that he has no visual representation of the figures whatever. "I hear the figures," he said emphatically, and it is my ear which retains them. Sight serves me nothing. I have much more difficulty in remembering numbers when they are given to me in writing than when they are repeated."

ZERAH COLBURN'S FEATS.
Zerah Colburn, the most astonishing natural mathematician which the world has ever produced, was a Vermont Yankee, who was born away back in 1804.

The elder Colburn, Abia by name, was one of those characters frequently met with in remote corners of New England. He farmed a little in summer and did tinkering jobs of carpentry in winter. He was shrewd but ignorant. There was nothing remarkable in the family, which was a large one, except that each member had one more finger and one more toe than nature has vouchsafed for the use of mankind. One afternoon, in the fall of 1810, when Zerah was 7 years old, his father, who was working at his carpenter's bench, heard with the greatest astonishment the boy, who was playing among the shavings on the floor, repeat a portion of the multiplication table.

"Five times seven are thirty-five. Six times seven are forty-two. Three times twelve are thirty-six."

The father paused in his work, scarcely believing his ears. The boy had been attending the district school for three weeks, but had not yet learned the alphabet, and could not distinguish the figures apart. The father began to question the little fellow and discovered that he had the multiplication table at his tongue's end.

"How much is thirteen times ninety-seven?" asked the father finally, in joke, not earnest.

"Twelve hundred and sixty-one," was the ready response of the child.

It was one of the favorite topics of Abia Colburn's limited conversation to tell how he felt when the truth of his son's talent broke upon him.

"I could not have been more surprised if a man had sprung out of the earth and stood before me," was the way he expressed it.

It did not take Abia Colburn very long to persuade himself that there was a mint of money to be made out of young Zerah's gift, talent, power, or whatever it was. So, after some further tests, the old man carried him off to Montpelier, where the State Legislature was in session, and there he astounded the assemblage of judges, State officials, and private citizens by his ability to solve mentally the most difficult problems. During the first year of his exhibition, when he was not 8 years old, he solved questions like the following in a period of time in each case varying from three seconds to one minute:

"How many seconds are there in 2,000 years?"
Answer—63,072,000,000.

"How many strokes will a clock strike in 2,000 years?"
Answer—113,888,000.

"What is the product of 12,325 multiplied by 1223?"
Answer—14,951,175.

"What is the square of 1,449?"
Answer—2,099,901.

"In seven acres of corn, 17 rows to each acre, 44 hills to each row, 8 ears to each hill and 150 kernels to each ear, how many kernels are there?"
Answer—9,139,200.

These were some of the first questions put to him. In the second year of his exhibition, when practice had improved him, he answered questions like the following:

"How many hours are there in 1811 years?"
Answer (in twenty seconds)—15,844,360.

"How many seconds in 11 years?"
Answer (in three seconds)—346,896,000.

"What sum multiplied by itself will produce 998,091?"
Answer (in three seconds)—999.

The ignorant and credulous thought the boy was a conjurer. Some believed him possessed of a devil. Others believed that he held the power of damnation and sought his aid and advice to recover stolen goods, restore lost love and bring the parted together. Others of a peculiarly nervous temperament experienced a kind of fear and dread in his presence which almost amounted to terror.

When asked by a learned professor one day by what process he executed these remarkable works the boy said:

"God put it into my head, but I cannot put it into yours."

After an unusually successful series of exhibitions, a number of Boston gentlemen offered to undertake the education of the boy, but the ignorance and greed of the father prevented it. He thought he saw a gold mine in the boy and so refused to permit him to be educated. Hearing of this in the public press the people grew less inclined to attend his exhibitions and after a losing trip to the South the father and son started for England.

He was exhibited in London for three years, where he excited the liveliest interest by the almost incredible nature of his mental feats. He exhibited before crowned heads, philosophers, and teachers. He gave in less than half a minute the total number of seconds which elapsed since the Christian era began. He ex-

tracted the square root of numbers of six figures and the cube root of numbers of nine in less time than the results could be written down on paper.

He was once requested to multiply 999,999 by itself. He at first said that he could not do it, but in looking at the number he perceived that multiplying 37,037 by 37,037 and the product twice by 27, was just the same as multiplying 999,999 by itself. How this child of 8 years discovered this remarkable fact is a mystery by which in less than a minute he gave the correct answer, 999,998,001. Then he said that he could multiply this sum by 49, which he did, and this product by 25, which produced the enormous result of 60,024,879,950,030.

He could raise numbers of one figure to the sixteenth power in less than a minute.

While in England and after the failure of his father's plan to educate the boy, he had him entered at Westminster School, but strange as it seemed, the boy displayed no aptitude for study, not even arithmetic and geometry. The father, who had been living in poverty in England, finally took the boy from school and started on a tour of France. This was unsuccessful, and kind friends had the boy brought to the attention of Napoleon, who caused him to be entered as a student at a military school. But again the stupid, greedy father interfered, and the boy was removed again to England.

After being reduced to direst poverty the boy became a strolling actor. Then the father died and he returned to America, where he entered the Methodist ministry. He died in that profession, although he never achieved the slightest distinction.

His death occurred in 1836 when he was but thirty-two years of age.—[Philadelphia Press.]

A Unique Will Case.

One of the famous legal complications which Boston has witnessed managed to involve in its intricacies quite a number of notable men. For many years one of the law offices in the old City building was occupied by a veteran lawyer known as "Jerry" Brown. Quite late in life this old gentleman was married to one of his clients, who not long after died. When her will was opened it was found to have been made shortly before her marriage. By it she bequeathed practically all her property to her intended husband, giving small bequests to her relatives and to small charities, and also remembering her husband's nephew, J. Q. A. Brackett, whom she named with him as executor. The will was witnessed by Albert E. Pillsbury.

The heirs-at-law immediately set up an attempt to break the will on the ground of undue influence. The documents they filed stated that among the property was a house on the Back Bay and a large amount of land in Kansas. They retained as counsel John D. Long and Stillman B. Allen. The executors retained Charles R. Train and J. O. Teale. The will was allowed in the probate court and an appeal taken to the Supreme Court. There the will was set aside. Then the executors appealed to the full bench on exceptions, but before the case reached trial it was settled.

The reason it was settled was this: By the laws of Kansas when there is no will the property of a wife all goes to her husband. The heirs were therefore fighting to break a will, which, if broken, would have left them nothing for their pains, while the legatee under the will was fighting to preserve it intact, when he was sure to get more by having the will broken. The consequence was that he settled with the natural heirs on his own terms.

"Uncle Jerry" lived a number of years to relate with satisfaction the story of his triumph. There was no such contest over his will, for he made none, the ex-governor being his only heir and the administrator of his estate.—[Boston Traveller.]

The Wearing of Amulets.

Who wore the first amulet it would be impossible to say, but the adoption of a talisman to ward off evil is of very ancient origin.

Phylacteries, the Greek word for amulets, were worn by the Israelites, to which allusion is made in the Scriptures. These phylacteries were a narrow strip of parchment, on which were written passages from the Old Testament. This strip was placed in a small leather box, and bound to the left elbow by a narrow strap. There was a smaller phylactery for the forehead, the box for which was about an inch square.

The word amulet is of Arabic origin, and implies a thing suspended. Amulets were of various kinds. The moonstone found in the desert of Arabia was worn as a talisman against enchantment by the women, who suspended it around the neck. It was a white, transparent stone, the time for searching for it being midnight.

In India a variety of gems and stones are used as amulets. The most common is the salagrama, a stone about as large as a billiard ball, and which is perforated with black. This is supposed to be found only in Gandaki, a river in Nepal. The person who possesses one of these stones is esteemed highly fortunate; he preserves it in a clean cloth, from whence it is sometimes taken to be bathed and perfumed. He believes that the water in which it is washed, if drunk, has the power to preserve from sin. Holding it in his hand, the dying Hindu expires in peace, trusting in a stone.—[Detroit Free Press.]

Wonders of a Ton of Coal

Besides gases, a ton of coal will yield 1,500 pounds of coke, twenty gallons of ammonia water and 140 pounds of coal tar. Distillation of the tar gives us 69.9 pounds of pitch, 17 pounds of creosote, 24 pounds of heavy oils, 9.5 pounds of naphtha, yellow, 6.3 pounds of naphthalene, 4.75 pounds of naphthalene, 2.25 pounds of alizarin, 2.4 pounds of solvent naphtha, 1.5 pounds of phenol, 1.3 pounds of uric acid, 1.1 pounds of aniline, 0.77 pounds of toluene, 0.46 pounds of antiracine and 0.9 pounds of toluene. From the last named product saccharine is obtained which is 224 times sweeter than sugar.—[Philadelphia Press.]

THE CERIS INDIANS.

CRUEL INHABITANTS OF TIBURON, A MEXICAN ISLAND.

A Race of Indians Totally Unlike Any Other Aborigines—A Wretched Bit of Savagedom.

It is a curious fact that Mexico possesses an island in the Gulf of California only a couple of miles from the mainland of the State of Sonora, and not over 30 miles from Hermosillo, the capital of the State, over which the National or State authorities exercise no authority, and which is inhabited by a race of Indians totally unlike any other tribe of Aborigines in that part of the world. Frank Oakley, who was for some years a resident of the Guaymas and other Mexican places on the Gulf, is in Los Angeles, and from him I have gleaned some facts about this little bit of savagedom, and its more wretched inhabitants, which will be of interest, not only in themselves, but in the light they throw on Mexico's indifference to its wards. The island is called Tiburon, which means "the shark," a very appropriate title when all its features are understood. Its exact location is between the 28th and 29th degree of latitude and the 34th degree of longitude.

"The island is not large," said Mr. Oakley, "its extreme length being about twenty miles, and its greatest width being something like twelve miles. It lies off the coast of Sonora separated from the mainland by a strait only two or three miles wide. Taking it as the crow flies, it is only thirty miles from the city of Hermosillo. It is inhabited by a tribe of Indians of which less is known, perhaps, than of the Fuegians of the Southern Continent, and who are fully as low in the social scale, though not as repulsive in features as the latter.

"Notwithstanding the short distance which separates these Indians, who are called Ceris, from the mainland, the inhabitants of that State know next to nothing about them and their island has never been thoroughly explored on account of their hostility to visitors. I have seen parties of them occasionally at Hermosillo, and a suburb of that city is called after them Pueblo de Ceris.

"The island is in appearance most uninviting. It is mountainous and barren, its flora suggestive of that of the islands of the Pacific, and it consists chiefly of cacti of the tuna and pitaza class which produce 'prickly pears'—'bessnags'—they are thick, round cacti growing to the size of five-gallon kegs—mesquit bushes, greasewood and stunted wood trees. In a few of the valleys, however, it is said that sycamores grow and some grass is to be found.

"Jack-rabbits, quail and rattlesnakes appear like the Ceris to be natives of the island, and burros, a few cattle and a great many dogs have been imported by the Indians as a result of their raids into Sonora. No one knows how many Indians there are on the island; but there are not thought to be over 300, and there won't be that many very long, as they are dying out. They live on fish principally, and do not hesitate to eat those which have been cast upon the sands by the sea, even if they are more or less decayed. They will also eat most any kind of animal, not being particular whether it was killed for that purpose or not. Some few years ago they were very hostile, and would not allow any one to land on the island, and even as yet, no exploring party has ventured to go any distance inland, so forbidding are they an so treacherous. They would cross to the mainland occasionally and make forays on the ranches, but the ranches punished them severely several times, and of late they have maintained a sullen sort of good behavior. The Mexicans have only one naval vessel on this coast, you know, the *Democrata* she is called, a small rickety wooden steamer, but she is a wonder to these Indians, and when she occasionally steams past they seem to realize that there is a power which could be brought to bear on them which they could not resist. When they visit Hermosillo, they always travel in squads, and sell bows and arrows and singing birds, and steal what they can.

"Their nearest neighbors among the aborigines are the Cahullias of Lower California; the Cowpols of Lower Colorado, and the Yaquis of Southern Sonora, but to these they bear no resemblance. They are different in contour of the face and head; in size they are smaller, and in cleanliness, industry and intellect they are not to be compared, and their language is totally different. On the island they are most hospitable, and show it plainly. When parties are not strong enough to inspire respect they will not be permitted to land at all, and I have heard of several cases in the last ten years of their murdering shipwrecked sailors who had sought refuge on their shores. As they are extremely treacherous and use poisoned arrows for weapons, whose slightest scratch means a horrible death, the Mexicans leave them severely alone. Private individuals have no business relations with them, and Government officials can make nothing out of them.

"In former times the Ceris were in the habit of making trips as far down as the environs of Guaymas, and they would steal whatever came in their way, from a cow or a steer to a burro or a goat, and would eat their booty. They got the reputation of being cannibals, if the occasion offered, and would kidnap children boldly. In this manner a number of little ones were stolen from their parents during the years that passed before the savages were cowed, and their fate can only be surmised.—[New York Tribune.]

A Clever Tow Horse.

A Washington driver says that there is an old gray horse there that sometimes cannot get back to his accustomed place at the foot of the hill in time for the next car. "This horse has nothing to do with the blue line, and knows the difference between the blue and the brown cars. If he is on his way back to the starting point and sees a brown car coming, this shrewd animal will turn around and stand alongside the track waiting for the car to reach him. No

amount of coaxing can induce him to move, but after the car reaches him he will 'pull like a Major' until he reaches the top. Then he returns to his post, and when he again sees his car coming turns and gets into position.

"A day or two ago the hill boy, instead of walking back with the horse or riding him, as was his usual custom, jumped on a car and rode down. The horse saw this and stopped half way up the hill and would not move until the boy came after him. Whenever the boy rides on the car the horse stops half way down the hill, but when the boy remains with him the old gray pursues the even tenor of his way until he reaches the bottom."—[Our Animal Friends.]

The Making of a Lens.

The greatest refracting telescopes yet known are made by Alvan G. Clark of Cambridgeport, Mass. So fine is the work required on the lenses of these instruments that the glassmakers commenced work on two disks, from which a 40-inch lens is to be made, four years ago, and only one has, as yet, been sent to Mr. Clark.

If there is the most minute speck of any kind in the glass it is rejected. A disk of forty inches in diameter and ten inches thick cost \$8,000. After Mr. Clark has determined what curve to give the glass, an iron casing is made of the size and shape required. The disk is revolved upon this and ground with steel crushings. Next sight courses of emery and an adjustable tool are used and at this stage measurements are made with an instrument that measures one thirty-thousandth of an inch.

The final shaping is made with beeswax and rouge, and even the bare thumb does its part in the polishing. The lens must be so exact in its curve that every ray striking it shall center at a predetermined mathematical point.—[Pencil Opinion.]

Tecumseh's Tomahawk.

Mrs. Lizzie Skinner of West Point Ky., is said to be the possessor of the tomahawk of the famous Indian chief, Tecumseh. At the battle of the Thames, where the warrior was killed, was a soldier from New York named John Hanes, who said that he saw the chief fall by a rifle shot fired by Colonel Johnson, and that he (Hanes) afterward spoiled the body of his tomahawk and knife. The veteran gave the tomahawk and a minute account of it to John R. Bramble as a precious heirloom, and he gave it to his son, Morgan Bramble, who got "cranky" in his old age, and concealed the weapon behind the plastering in his house, refusing to talk about it or admit that he had it. He died December 30, 1891, and the tomahawk by his request became the property of Mrs. Skinner. It is a very queer old weapon, half British hatchet and half Indian tomahawk. The handle is of well-seasoned and hard walnut and is fastened into the iron head with a brass eye, which is a quarter moon, the emblem of the chief. The story seems a little doubtful, as it is known that Johnson, being down and about to be tomahawked by Tecumseh, shot him with a pistol.—[Piscayune.]

What Sustains the Moon.

What is it that prevents the moon falling? That is the question which now lies before us. It is assuredly the case that the earth continually attracts the moon. The effect of the attraction is not, however, shown in actually drawing the moon closer to the earth, for this, as we have seen, does not happen, but the attraction of the earth keeps the moon from going further away from the earth than it would otherwise do. Suppose, for instance, that the attraction of the earth were suspended, the moon would no longer follow its orbit, but would start off in a straight line in continuation of the direction in which it was moving at the moment when the earth's action was intercepted.

What Newton did was to show, from the circumstances of the moon's distance and movement, that it was attracted by the earth with a force of the same description as that by which the same globe attracted the apple, the difference being that the intensity of the force becomes weaker the greater the distance of the attracted body from the earth. In fact, the attraction of the earth on a ton of matter at the distance of the moon would be withstood by an exertion not greater than that which would suffice to sustain about three-quarters of a pound at the surface of the earth.—[Good Words.]

Russian Weddings.

First the bridegroom's parents satisfy themselves that the bride can spin and does not limp. A few days before the wedding the bride is taken to bathe in her friends and companions. The soap used at the time is a present from the bridegroom. The bathing sponge, through which ribbons are passed, is carried on a long pole in front of the bride. The young woman sings as the procession advances. The platform of the bathing-house is sprinkled with beer. It depends upon the odor from the beer whether the groom is to be a henpecked husband or not. As soon as the bridal procession enters the church on the day of the wedding the bride and bridegroom start down the aisle in a mad race. There is a tradition that which ever one places the foot first on the cloth in front of the altar is to be master in the house.

In some governments the young wife is obliged to pull off her husband's boots in the presence of the guests as proof that he is master. A whip—placed there purposely—falls from the boot and the husband strikes the wife with it three times. After this greeting he kisses her. The Russian peasant values his wife for her economical properties.

Not far from Aleppo is situated the little town of Orfah, the ancient Ur of the Chaldees, which is of great historical interest, having been the birthplace of Abraham, the patriarch. There are but few Jews in the place. The Arabs point out a small stone structure, lying just outside of the town, which they declare is the identical house where old Abraham first saw the light. On account of this fact the building is called Beft El Chalt (The house of the friend of God).

FOR THE CHILDREN.

POSSY AND RIDER.

I'm a bold little Ranger,
I do not know danger,
Nor worry, nor sorrow, nor feat,
I ride on a saddle,
Straight up and astraddle,
And chase the old cows far and near.
I have a fine posy,
He's nimble and bony,
And sees from all sides of his eye,
When he scares up a rabbit,
I'm quite sure to grab it,
And carry it home for a pie.
—[New York Advertiser.]

BIRDS HAVE THEIR LOVE STORIES.

A lady who is fond of birds picked up a young sparrow which had fallen from its nest, fed it from her own mouth and at night placed it in the cage with her canary. The canary at once bestowed upon the newcomer all the attention of a mother and nestled beside the little stranger during the night. In the morning the lady placed the 'chippy in the window, so it might have the privilege of regaining its freedom. It plumed its tiny wings and went away.

The canary mourned during the day as if he had lost his mate. In the evening the chippy came back and perched upon the window. The sash was raised and it flew in and nestled upon the cage. The canary struck up his liveliest notes and seemed gratified. This was repeated two or three days, the chippy going each morning and returning in the evening. One day it went away and did not come back. The canary drooped and the next day fell dead from his perch in the sunshine that played over the gilded cage in the window. The little creature died for love.—[Baptist Recorder.]

DOGS THAT CAN TROT.

Dogs that can trot in fast time are somewhat rare, but Canada holds one and the United States possesses another. The result is that there has arisen talk of an international race between the two rapid canines.

The dog that trots under the British flag is named Doc, and is owned and driven by Willie Ketchum, of Brighton, Canada. Doc is an old campaigner, and has trotted exhibition heats at races and agricultural fairs for several years. He pulls a tiny sulky, and on ice or hard track he can trot half a mile in one minute thirty seconds, and a quarter in forty-five seconds. Doc is rather a small setter, but his stride is said to be extraordinary. From two to four furlongs is the distance the Canadian wolver usually covers.

The proud upholder of the stars and stripes is a pointer owned by Willie Ciro, of Carson City, Nev. The dog is only two years old, but before he was much more than a puppy his young master had discovered that he always trotted whenever hitched up. One day Ciro raced with and passed his father's trotting stallion, Black Prince, on the main street of Carson City, much to the elder Ciro's discomfiture, and from that day to this the fame of Nevada's trotting dog has waxed greater and greater. Neither dog is allowed to trot more than half a mile at a time.—[Atlanta Journal.]

ICEBERGS.

When I was a boy I studied about the "rivers in the ocean"—just as some of you have been studying, during the last year, how the Arctic Current sets out of Davis Strait and down the Labrador shore, then on into the Atlantic. How it brings with it the icebergs and smaller pieces of ice which are called floes. How it comes in contact with the Gulf Stream so that for a considerable distance south-east of Greenland there are two distinct currents in the ocean waters—a lower, the Arctic Current, moving southwardly, and an upper, the Gulf Stream, creeping toward the north. The floe-ice, floating within a hundred feet of the surface, is beaten back against the shore of Labrador by the surface stream, but the icebergs, because of their greater depth, are carried forward toward the equator by the under current. This is all explained in your geographies and you remember about it.

I am going to tell you about the icebergs I saw last summer when the steamship City of Rome was nearing the Newfoundland Banks. About eleven o'clock we could just discern in the far north what seemed to be a cloud or smoke. 'Twas an iceberg, thirty miles away when it was nearest to us. This was in sight an hour. When nearest, looked about fifty feet long by twenty-five or thirty feet high.

As we came from dinner there was another one south of us fifteen miles away, which was so near that it looked like a huge snow bank with a hollow in the northeast corner. Through a glass this hollow was of a green cast. Before this iceberg was out of sight away in the eastern distance a "cloud as it were a man's hand" appeared. As it came nearer we found it would pass closer to us than either of the others. It was so grand I wished a picture of it, and went to my satchel for the kodak. When I got on deck there was the grandest white monument just before me I ever saw. By this time other kodaks were at work, sketch books were out, glasses were raised and many were drinking in a slight they had never seen before. No pen description can convey an idea of its beauty. Pure white, sloped as a vast tomb, perpendicular walls, toward the top wrought upon by the sun till there seemed to be castles, pillars and spires all pictured in ice. It was simply a grand work of divine art.—[Farm Field and Stockman.]

An Electric Dairy.

A gentleman of leisure in England has taken up dairy farming as a hobby, and after visiting the best dairies on the Continent of Europe and securing the best advice as to machinery and utensils, has just built a dairy, the like of which has never been seen. The building, which is of Carrara marble, is fitted throughout with electric light, and all the motive power for separators and churns and washing purposes is supplied by electricity. The opening of this palatial edifice was performed with great ceremony by the Lady Mayoress of London, and is expected to mark the beginning of a considerable extension of scientific dairying.—[New York Commercial Advertiser.]