A SERIOUS PROBLEM.

THE COMPASS AND THE GROWING USE OF ELECTRICITY.

A Danger That the Magnetic Needle May Be Rendered Practically Useless to the Mariner and the Surveyor—A Curious Discovery.

Although the invention and introduction of the trolley system of street railways have been of inestimable value to civilization it has incidentally wrought some harm here and there. Emphasis was laid on one of these drawbacks to electric traction in the address delivered by Professor A. W. Rucker at a recent meeting of the British Association For the Advancement of Science.

In various parts of the world observatories have been established for the purpose of keeping track of the changes in the direction in which the magnetic needle points. It was long ago discovered not only that the compass does not aim directly at the north pole, but that the amount of variation in its indications from true north undergoes slow alterations. Hence it is necessary to make fresh charts, showing the variation for different parts of the globe every few years. But in order to get the data for such corrections—of the highest importance to the surveyor and mariner—it is requisite that careful observations be made continuously at a number of widely separated points.

Two of the most famous and hitherto useful institutions of this class are situated in Washington, in the grounds of the naval observatory and in Toronto. The interference of the electric currents that run through the earth and the track of trolley lines which have been constructed near these observatories interfere so much with the behavior of the instruments of both places that the records now obtained are practically worthless. And the experts are greatly puzzled by the problem of escaping from this vexatious interruption of their work.

So delicate are the influences which the magnets in such an observatory are intended to investigate that they can be perceived only when the apparatus is most scrupulously guarded. The room in which they are mounted is underground. Visitors are never admitted except under unusual circumstances and are required to deposit their jackknives, keys and all other metallic objects about their persons before entering the apartment. The magnets, generally bars of steel not over six inches long, are poised above a scale that is graduated to the most minute fractions, and a telescope, on an adjacent pillar, is used to read the fluctuations, which are too small to be discernible by the unassisted eye. A tiny mirror, as big as a dime, catches a beam of light more slender than the lead in a pencil and reflects it away to a sheet of slowly moving photographic paper, on which a permanent record is made. The arrangement of the apparatus is such that the movement of the magnet is magnified many times in the record, in order to render the changes perceptible.

There are three sets of instruments on duty in such an observatory. One swings horizontally, like a mariner's compass. Another dips up and down. A third is designed to measure the intensity of the earth's magnetism, which is a separate thing from the direction in which it acts. And so sensitive are they that their readings are apt to be interfered with by exceedingly trivial causes. It is customary for the superintendent to inscribe on the scroll "Visitors admitted," whenever such a breach of the regulations is permitted, so that if any abnormal fluctuation is detected in the motion of the magnets a suspicion of its meaning will be excited in the mind of the scientist who afterward examines the photographic trace.

In spite of the delicacy of the apparatus, it may seem surprising to the lay mind that the passage of trolley currents at a distance of many rods from the observatory should be able to affect the instruments within. But they do, and it is impossible to separate in the record the variations produced by genuine changes in terrestrial magnetism from those which are caused by the trolley. Professor Rucker said a few days ago: "From all parts of the world we hear of observatories ruined or threatened by the invasion of the electrical engineer. Toronto and Washington have already succumbed, Potsdam, Parc St. Maur, Greenwich and Kew are besieged, and the issue largely depends upon whether these great national observatories can or cannot make good their defense."

Although the practical service to mankind which is rendered by institutions of this class is alone sufficient to justify their maintenance and to warrant alarm as to their future, there are other questions involved which possess profound interest for the philosopher. We know that the earth is a magnet, but as yet no one is able to say what makes it so. The fundamental secret of terrestrial magnetism has not been solved. Then, too, there are various changes in direction which mark the behavior of the needle that remain to be explained. What influence is it that makes the needle swing to and fro to a microscopic extent every day? Why is it that the diurnal swing is greater in years of sun spot abundance than at the minimum stage of solar activity? Why do the indications of the needle differ in summer from those of winter? What is the key to the mystery of the long period movement that makes it necessary to recbart the situation? What causes the convulsive behavior of the magnets for a few hours or days when there is a great outbreak of sun spots? And is there any relation between the weather and the fluctuations in the earth's magnetism? There are theories on these subjects, but no generally accepted doctrines, and the human mind is so constituted that it will not rest until further light is obtained.—New York Tribune.

Sharks and the Dead Whale.

The presence of any large quantity of easily obtainable food is always sufficient to secure the undivided attention of the shark tribe. When "cutting in" whales at sea, I have often been amazed at the incredible numbers of these creatures that gather in a short space of time, attracted by some mysterious means from heaven only knows what remote distances. It has often occurred to us, when whaling in the neighborhood of New Zealand, to get a sperm whale alongside without a sign of a shark below or a bird above. Within an hour from the time of our securing the vast mass of flesh to the ship the whole area within at least an acre has been alive with a seething multitude of sharks, while from every quarter came drifting silently an incalculable host of sea birds, converting the blue surface of the sea into the semblance of a plain of new fallen snow.

The harpooners and officers from their lofty position on the cutting stage slew scores upon scores by simply dropping their keen edged blubber spades upon the soft crowns of the struggling fish, the only place where a shark is vulnerable to instant death. The weapon sinks into the creature's brain, he gives a convulsive writhe or two, releases his hold and slowly sinks, followed in his descent by a knot of his immediate neighbors, all anxious to provide him with prompt sepulture within their own yearning maws.—National Review.

The Four Greatest Poets.

Who are the four greatest poets of the world? The question was one, we gather from Sir Edward Hamilton's monograph, which used to exercise Mr. Gladstone. About the first three places indeed he believed that there could be no reasonable question. They must be assigned to Homer, Dante and Shakespeare. But about the fourth place Mr. Gladstone found geat difficulty. He considered that there were four competitors—Æschylus, Virgil, Milton and Goethe. We wonder how many of our readers would at a first guess select Mr. Gladstone's final choice? It was Goethe.

Who, in recent days, have been the greatest masters of English? This was another question which Mr. Gladstone was fond of considering. He decided in favor of two as greater than all others—Cardinal Newman and Mr. Ruskin. It is interesting to recall the fact that Mr. Morley, in a lecture, answered the same question. According to him, the great masters of English in our generation have been three—Carlyle, Macaulay and Mr. Ruskin. The last named alone appears, it will be seen, in both lists.—London News.

Life's Changes.

While in the drawing room coach on his way home from Philadelphia not long ago a New Yorker found himself face to face with a woman whom he had not seen for some time.

"Why, Mrs. Blank," cried the New Yorker, "how"—

At the woman's reproachful glance he stopped. "Not Mrs. Blank," she corrected. "I got my divorce from Mr. Blank some time ago. I'm now Mrs. Dash. Let me present my husband, Mr. Dash," whereupon a man got up and bowed.

"You—you don't mean it!" gasped the New Yorker. "I hadn't heard. You and Mr. Dash haven't been married very long, have you?"

"Oh, no, indeed," said the woman, "about 45 minutes, I think," consulting her watch. "We're on our wedding trip now."

The New Yorker gasped again. Then, "Bless you, my children," he cried and fled to the smoking car.—New York Sun.

An Offset.

"This is Mr. Pneer, is it not?"

"Yes, sir."

"You have rented a house fronting on Mulberry square, I believe?"

"I have."

"Well, my name is Ferguson. I have rented the house next to yours, and by a queer mistake the man I sent to clean it up so I could move into it went to the wrong place and cleaned up yours. His bill, which I settled, is quite moderate—only $1.50—and I thought that if the work proved satisfactory on inspection perhaps you would not object to assuming the payment of that amount."

"Not at all, sir, but I shall charge you $1.50 for one day's occupancy of my house. That, I think, makes us even, sir."—Chicago Tribune.

When the Time Came.

Maud—Oh, Ethel, and what did you say to him when he proposed to you? Did you say what you said you were going to the other day? That was a noble speech, just suited to crush the boldest man. And did he slink away like a whipped dog?

Ethel—Well, not exactly. You see, I didn't say just that. I—I—well—er—er—well, you see, I said "yes."—London Fun.

Strange Mistake.

North Side Mother—I told you a little while ago, Jerry, who our first parents were. Let me see if you remember. Who was the first man?

Precocious Boy—Adam.

North Side Mother—That's right. Who was the first woman?

Precocious Boy—Evil.—Chicago Tribune.

Two of a Kind.

Husband (at the breakfast table)—Oh, for some of the biscuits my mother used to make!

Wife (sweetly)—I'm sorry you have not got them, dear. They would be just about stale enough by this time to go well with that remark.—New York World.

Getting Matters Adjusted.

"That woman next door went and got a hat exactly like mine."

"Did you make a fuss about it?"

"No; I gave mine to the cook."—Chicago Record.

A YANKEE.

Various Views In Various Places as to What He Is.

"I was greatly amused," said a New Orleans citizen who has lately made a visit abroad, "to notice how the term 'Yankee' widens in application as one gets farther and farther away from the habitat of the real thing.

"In New York a Yankee is commonly supposed to be a native of Connecticut, Vermont or Massachusetts, and I have noticed that the name is applied to mean skinflints rather than to the people in general. In St. Louis a Yankee is understood loosely to be any one from the extreme northeast. Here in New Orleans the term includes pretty nearly everybody above Mason and Dixon's line—in short, 'northerner' and 'Yankee' are more or less synonymous.

"Now comes the really absurd part of it, although quite in line with what I have just remarked. While I was in London I found myself continually referred to as a 'Yankee' by natives who had learned I was from New Orleans. 'I think you Yankees are very charming people,' said a big wholesaler who wanted to be extra pleasant. 'I know several from your state.' I tried to explain at first, but I soon got tired of that. I was sure to be greeted by a stare of amazement. 'But I thought all Americans were Yankees, doncherknow,' would be the usual protest.

"Later on I met a very intelligent hotel keeper at Bern, in Switzerland, and in the course of conversation he remarked that he had an extremely agreeable countryman of mine staying at his house the previous season. 'As you are both Yankees,' he said, 'you may by chance know him.' 'Where does he live?' I asked. 'In Buenos Ayres,' replied the hotel keeper."—New Orleans Times-Democrat.

INDIAN SIGNAL SERVICE.

They Have Long Telephoned by the Use of Drums.

Travelers in uncivilized countries have often wondered how some savage tribes were able to transmit news for hundreds of miles with no apparent facilities for doing so. An interesting light is thown on this subject by Jose Bach, who tells of the means by which the Indians on the Amazon communicate with each other at a distance. The natives live in groups of 100 to 200 persons in settlements half a mile or a mile apart. In each dwelling there is a wooden drum, which is buried for half its height in sand mixed with fragments of wood, bone and mica, and has a triple diaphragm of leather, wood and rubber. When this drum is struck with a wooden mallet, the sound travels far and is distinctly heard in the other drums in the neighboring dwellings.

It is beyond doubt that the transmission of the sound takes place through the earth, since the blows struck are scarcely audible outside of the houses in which the instruments are placed. After a "malocca," or dwelling, has been "called up" by an initial blow conversation is carried on between the two drums. Mr. Bach's explanation is that the communication is facilitated by the nature of the ground, the drums doubtless resting upon one and the same stratum of rock, since transmission through ordinary alluvial earth could not be depended upon. This method furnishes an ingenious modification of the process employed by Indians for perceiving distant noises, such as the gallop of a horse, which consists in applying the ear to the earth.—St. Louis Globe-Democrat.

Uses of Adversity.

It is something new to discover that a bodily affliction can assist one in mastering the difficulties of learning a foreign language, but there is a case of the kind on record.

Miss Gertrude came down stairs one morning with red eyes, a swollen nose and a generally distressed appearance.

"What is the matter, Gertrude?" asked her mother.

"An awful cold in my head," she replied.

"I am very sorry," said her sympathizing parent.

"I was when I got up," cheerfully rejoined the young miss, "but I'm not now. I can get that French nasal sound exactly. Tray be-ong. Bong zhoor. How's that?"—Youth's Companion.

A Game Jockey.

Tod Sloane's gameness will never be questioned by those who saw him win a race on Walter in a nose finish at the old East St. Louis track some years ago. After the race Tod was hardly able to dismount. Then it was learned that he had broken an arm in the race. It seems that he was crowded against the fence in a jam around one of the turns and broke his arm. Switching the reins to his good arm, he rode the race out with great determination, putting up a "Garrison finish" and winning on the post by the narrowest possible margin. It was an exhibition of gameness the like of which was never before heard of in the history of the American turf.—Chicago Record.

Twisted Logic.

It is said that during the Irish rebellion of 1848 a bishop sent a request to a parish priest for information and received the reply, "The peace of the country is assured; faction fights are increasing."

A similar twist in logic is manifested in a message of congratulation received by Mr. Willis, on his election to the New South Wales parliament. The telegram from his agent read, "Carnida jubilant; heavy fighting; several hurt, including self."—London Chronicle.

Worthy of Worship.

"Faw gwacious sake, deah boy, who was that common fellaw you let shake youah hand?"

"Deah boy, he may have a common look, but he has a gweat soul. He is the fellaw who designs the new collaws."—Indianapolis Journal.

"IT'S NOT MY WAY."

"It's not my way,"
How often is this heard.
"It's not my way, to speak the kindly word;
I feel enough, but 'tis not well to speak,
To tell my loving out it seems so weak."

"It's not my way,"
How often hearts have broken
Because the loving word has been unspoken,
Because the smile we looked for was a frown,
The hand that should uplift, but held us down.

"It's not my way
To speak the word that craving love requires,
To voice approval, foster vain desires."
Hearts often faint and fall out by the way,
Because to speak is not your way.

"It's not my way."
Ah, well, when death shall come
And touch the best loved lips and make them dumb
Sad will it be for you " grim regret
And stern remorse upon your heartstrings set

Their fingers firm,
Because it is their way to torture and to wring.
Then you'll remember every little thing,
The smile you did not give, the word unspoken
Which might have gilded life and kept a heart unbroken

Aye, then you will remember!
And in blood sweat and agony will say,
'Would it had been my way
To love, approve and tell it out, so meet,
For it was you that made my life complete.'

—Rose Seelye-Miller in Observer

DEALING WITH LUMBERMEN.

Peculiar Tricks Indulged in by Both Buyer and Seller.

There is an old retired merchant in Detroit who delights in recalling his experiences when an active man running a general store in one of the northern cities of the lower peninsula.

"I used to reap a harvest when the men were coming out of the woods," he relates. "They were not up in styles, and about any old thing would suit them provided the color was right and the fit even passable. But there were tricksters among them, and I had to have my wits about me in order to keep even with them.

"'How much is that hat?' asked a strapping six footer, who arrived from camp one day with a pocketful of money

"'Two fifty,' I replied.

"Then he informed me that he always had the crowns of his hats punched full of holes in order to keep his head cool and his hair from coming out. I soon had this attended to, and then he asked what the hat was worth. 'Two fifty,' I responded in surprise, but he laughed at me for asking such a price for damaged goods. He had me, and got his hat for $1, while the jolly crowd with him had a laugh at my expense. He wanted to look at some 'fiddles,' and after pricing one at $10 concluded to take it.

"'Where's the bow?' he asked, as I was doing up the package.

"'You only bought the fiddle,' I laughed. The others saw the point and laughed too. The giant tried to bluff me, but I kept good humored, and got even on the hat by charging him $1.50 for the bow. I not only got even, but the others were so pleased with my 'Yankee trick' that they spent plenty of money with me."—Detroit Free Press.

Mice of All Colors.

The National Mouse Club of England recently held an exhibition where several hundred mice competed for gold medals, champion cups and various other prizes. These little creatures are not the ordinary everyday mice which scare the cook and drive the mistress of the house to take refuge on a chair. They are well bred mice that expected to be petted and caressed and treated as tenderly as a pet cat or dog.

By careful breeding they have developed great variety in coloring and sometimes in shape. One very choice style of animal, called the spiny mouse, has a row of bristling hair for a spinal ornament and is a very cute miniature reproduction of a porcupine. The familiar white mice so often seen for sale on the streets here have been bred with black eyes instead of red ones. It has taken several years to produce these results, but the society now claims to be able to furnish mice in 12 or 13 different shades. To any one who is able to overcome the fear of mice they are dainty, delicate little studies at any time, but when they play around in suits of chocolate, sable, fawn, jet black, tortoise or golden agouti they become perfectly fascinating.

As in the case of all fads of this kind, the prices brought by these little pets are extremely steep. Fifteen dollars or $20 is not a large price to pay for a well bred mouse, and some of them have been sold for as high as $25.

A Judicial Ruling.

During the hearing of a case at the Bloomsbury county court counsel referred to the defendant, an Oxford master of arts, as "this man," whereupon defendant's counsel protested, saying he might at least have used the word "gentleman." Judge Bacon — Nonsense. That is the sort of affectation you often hear among women when they say "you ought to call me a lady." In my opinion man is a much better title than gentleman.—London Telegraph.

You Can't Hear It.

There are many sounds animals can hear which are inaudible to man. Mr. Galton, the famous anthropologist, has invented a little whistle with an adjustable plug, by which it can be rendered more and more shrill till it ceases to give any note to our ears, yet a dog will hear it as a whistle still and answer readily its call.

The plant known as vervain, which is not distinguished for its beauty and which grows nowadays utterly disregarded, was so sacred to the Druids that they only gathered it for their divinations when the great dog star arose, in order that neither sun nor moon should see the deed.

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8:53 A M	396	Ar...Hot Springs...Lv	6 30 P M
12:03 P M	474	Ar....Deadwood....Lv	3:00 P M
9:55 P M	420	Ar.....Crawford.....Lv	5:35 A M
11:45 P M	477	Ar.....Alliance.....Lv	3:55 A M
8:10 A M	715	Ar.....Ravenna.....Lv	9:40 P M
9:45 A M	753	Ar...Grand Island...Lv	8:46 P M
1:00 P M	838	Ar....Lincoln.....Lv	6:15 P M
4:05 P M	893	Ar.....Omaha.....Lv	4:25 P M
8:05 P M	1083	Ar...Kansas City...Lv	10:40 A M
7:19 A M	1312	Ar...ST. LOUIS...Lv	8:45 P M
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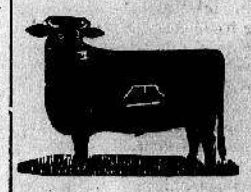

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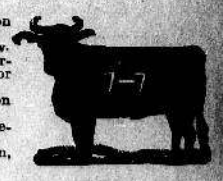

RYAN BROS.

on left ribs.

on left side or hip.

S on left hip.

on left side.

left side or hip.

left side.

left side.

left side.

Horses same as cattle on left hip. Range—[illegible] and Alkali creek. P. O. [illegible]