

### SHOW EARTH MOTION

#### Russian Prince Invents New and Ingenious Seismograph.

Wonderful Instrument Constructed by Scientist Records Earthquakes, However Distant Shock May Be From Station.

St. Petersburg.—A wonderful new instrument to record the motion of the earth produced by an earthquake, however distant from the recording station, has been invented by the distinguished scientist, Prince Galitzin, member of the Imperial academy of St. Petersburg. By the application of ingenious contrivances, the seismograph gives an actual scale reproduction of the earth movement, unlike other earthquake recorders, which continue to vibrate under the earth's initial movement long after that movement has subsided. The new instrument has been mounted at Eskdalemuir observatory, Dumfriesshire.

The following is the official description: Fundamentally the instrument consists of a horizontal pendulum suspended by wires, so that when the framework, which is attached to the earth by a pier, is moved, the pendulum is set in motion. In this respect it resembles other forms of seismographs, notably that of Dr. Milne, to whom indeed we mainly owe the principle. In the usual pendulum which vibrates long after the earth movement has ceased, so that it is impracticable to attempt to determine from the motion of the pendulum the earth movement which produced it.

If, however, friction is introduced, the motion of the pendulum rapidly subsides, and, by suitably choosing the amount of friction the instrument can be made "dead beat." In this condition the motion of the pendulum is, except in one or two very special cases, an exact reproduction on a certain scale of the earth movement.

In the Galitzin pendulum such friction is introduced by allowing a copper plate attached to the pendulum to move between the poles of a strong magnet. According to the laws of electro-magnetism the friction so produced conforms to a most precise and simple law. In this way the Galitzin pendulum is made to indicate precisely by its motion the motion of the earth.

The introduction of this friction has, however, a disadvantage, as it reduces the sensitiveness of the apparatus. But by a second brilliant application of electro-magnetic theory Prince Galitzin has overcome this trouble. A coil of wire attached to the pendulum moves between the poles of a strong magnet and an electrical current is so generated in the coils when the pendulum moves. These currents are carried to a galvanometer timed to the same fundamental period as the pendulum and again made "dead beat." Thus the motion of the earth is reproduced on the galvanometer with perfect precision on a scale of magnification sufficient to satisfy the humblest observer.

A mirror attached to the galvanometer reflects a tiny dot of light from a lamp onto a sheet of photographic paper. The paper is attached to a circular drum driven by clockwork, so that if there is no earth movement the dot traces a straight line on the paper. If an earth movement occurs the dot is moved sideways and a complete and proportionate record of any movement of the earth is reproduced on the photographic paper.

As no man can predict the direction from which an earthquake may proceed, two pendulums with corresponding galvanometers are required to give a record of the effect coming from north to south and from east to west. Two dots of light record the earth movement on the same photographic sheet, and thus an almost cursory examination of the record shows the direction from which the earthquake proceeded.

Precise measurement, combined with principles already established, enable an observer at a single station to assign with considerable accuracy the origin of an earthquake disturbance. Thus Prince Galitzin at St. Petersburg could say from his records whether an earthquake occurred at Edinburgh or at London.

### MAKE REPORTS ON MOISTURE

Weather Bureau Planning to Give Out State of Humidity in Daily Statements.

Washington.—The department of agriculture recognizing the part that humidity has in the weather condition as it affects the feeling of people, is considering the advisability of having the daily reports, include a statement of the humidity as well as of the temperature, with perhaps a prognostication as to the degree of humidity that may be expected during the 24 hours following the issuance of the report.

Just how the humidity can be designated is one of the problems in connection with this suggestion, which will be given careful consideration by officials of the department.

Products of Delaware.—Washington.—The value of the annual product of the manufacturers of Delaware, according to the census bureau is \$29,871,841.

### WOMAN POSES LONG AS MAN

Declares, However, She Has Lost Respect for Them During Five Years' Association.

New York.—Apparently Miss Ellen F. Smith, the sprightly young woman who boasts that under the pseudonym of "Al Martinez" she has passed as a man for five years and been "one of the boys" all the time, is going to have more trouble than she expected to resume life in a female role. Miss Steed, stenographer at 159 Nassau street, who let Miss Smith have desk room in her office, says she can't stay there now.

When Miss Smith, who is now acting as the representative of some South American commercial house, was seen at the Hotel Brevoort, she said she would rather be a woman than a man. She added:

"You can put it down as a fact that I have not so good an opinion of most men as I would have had had I not by actual association with them 'as one of the boys' learned just what they are like. Of course, there are clean-minded men, but the moral standard of most of them is considerably lower than that of women."

"I don't see any reason why any clever woman could not continue for years and years to masquerade as a man without discovery. Acquire a masculine voice, get rid of the feminine stride, have your hair cut short, and there you are. Much as I mixed with men in those five years I was never near discovery."

"I did not find much difficulty in adopting a man's gait."

"I parted my hair, not in the middle but on the side, and wore a straw hat, a derby or a soft hat. I had two or three suits of clothes."

"Did you learn how to drink whisky straight?"

"Yes."

"How much of it can you drink?"

"It depends upon the state of my digestion. Oh, yes, I would not be much of a man if I had not learned that."

"And you smoked cigarettes?"

"A few."

"How many a day—a dozen, or more, or twenty?"

"I don't know. I suppose I smoked a dozen. I never counted them, to tell the truth."

Miss Smith said she might have even told a risqué story on occasions, much as it went against the grain to do so, but sometimes there was no escape. She denied that she was going on the stage, and says it "Never again" as one of the boys for hers.

### RICH BROTHERS IN REUNION

Four Members of Connecticut Family Start With \$700 Each, Now Worth Millions.

Bridgeport, Conn.—How a patrimony of \$700 each developed into millions in the hands of four farmer boys was the theme of conversation at one of the most remarkable farm reunions ever held in the state of Connecticut, when Darius, Nathan G. and Charles Miller visited their brother, Frank, in Bridgeport the other day.

These four boys were born on a farm near Middletown. More than fifty years ago their father called them together, gave them \$200 each and told them to go out in the world and fend for themselves.

As they sat at the table the other day each one represented millions, and the total fortune of the four brothers is estimated at not less than \$25,000,000.

With their sister, Mrs. Kate Miller Strickland of Bridgeport, their total ages figured up to 370. Though the oldest, Darius Miller, is eighty-one, and the youngest is 65, all are well preserved and in the best of health. The golden wedding of Mr. and Mrs. Darius Miller was the occasion of the reunion.

A group photograph was taken of the four brothers and their wives. It is the first photograph Darius Miller has posed for in 50 years.

The Millers have a claim against the city of Middletown for \$700 with compound interest dating from the year 1850. This would amount to an almost incalculable sum.

It was promised by the town to their ancestor, Thomas Miller, who founded a mill there and was never paid.

### LIVE ON SMALL PAY

Chicago High School Girls Taught Science of Money.

Husband's Trousers Will Be Safe In Future Because Pay Check Will Be Split Up Equally When It First Gets Home.

Chicago.—Woe be unto the young man who marries a Chicago high school girl a few years hence and on pay day tries to "put anything over," as they say in the less select circles. For, as they say in those same circles, "she'll be onto him bigger than a house."

A new system of household economics is to be introduced into Chicago by the new two-year vocational course in the Chicago high schools. One of the studies that the girls who take the household arts course will have to master is named "division of income," and Mrs. Ella Flagg Young, superintendent of schools, says that the girls are going to know how to split up a pay check so closely that they will foresee a needed yeast cake four days ahead.

It won't be a case of "frisking" hubby's trousers in the still night watches to see if there's change enough for a small steak for breakfast.

A scientific division of the pay check will take place when it first gets home, and it won't be necessary for the wife with high school training to make more than the one "touch." She'll take what she needs to run the house on and hubby may have the rest, but must pay his daily expenses out of it.

If he goes "broke" he can't borrow from wife, because she'll have the money all spent, mentally, at least. If she still has the nominal possession of it she'll know just where it's going. If he should reach for a half dollar she might say:

"You can't have that. That's for sugar."

Disheartened, he might eye a quarter wistfully and hear:

"Not that either. That goes for a dozen eggs." (This assumes, of course, that some time eggs will drop to that figure.)

In despair he might reach for two cents to buy a morning paper, and be skiddoo. That's Friday's yeast cake.

Of course, this may never happen. But seriously, now, the girls are going to be educated to such a fine point that it might happen.

"We want the young wife to understand that part of the family income should be devoted to the home," said Mrs. Young. "We want her to know how to spend it. She will be taught in the high school to watch the daily papers for the market prices and to know just what things should cost from day to day."

"When she sees a thing she wants we want her to be able to figure out whether she can really afford it—whether it will be worth as much to her as it costs. She must take her husband's income and figure out what per cent. must go for rent, food, fuel, light and all the other needs of a home."

The husband isn't the only one who will have trouble trying to deceive the wife trained for her profession in the Chicago high schools. Housewifery is to be a real profession in the coming generation.

In the new courses the girls will study textiles, and learn how to distinguish the pure from the adulterated. If any careless clerk displays a piece of shoddy goods with the statement that "it's all wool and a yard wide" he'll be snapped up so quick he'll be wondering, long after the indignant shopper has departed what happened and how many were killed.

### GARDENING NOW IN FASHION

Women Horticulturists Show Possibilities for Making Money in Business.

Edinburgh.—"Gardening is the fashion of the moment," said the Viscountess Falmouth the other day, when she presided over a meeting of women horticulturists who had gathered together as a side issue of the women's congress.

What opportunities are there for women gardeners and how should girls be trained to fill what positions might be offered? Those were the two main questions the speakers discussed.

"Even as a jobbing gardener a girl can earn \$1.25 a day, and very often \$2.50 for good work," said Miss Lorie A. Dunnington, who is well known in horticultural circles. "If she be not strong enough to wield a spade herself she can easily hire a strong boy to do that part of the work. There are plenty of women who have begun in the profession in this way and many of whom are now high in the ranks."

"What the lady gardener most needs is a power of organization," said Miss Jessie Smith. "Any one can work hard themselves. The thing is to make others work for you."

Arizona Valuation \$86,126,236. Phoenix, Ariz.—The territorial board of equalization has fixed the valuation of property in Arizona for purposes of taxation, at \$86,126,236. This is an increase over last year of \$3,422,163.73.

### KEEP CHICKENS FROM CATTLE

English Observations on the Subject of Tuberculosis Warrant That Action.

London.—Some observations bearing upon the subject of bovine tuberculosis have recently been made by Dr. H. Corner, who is interested in a school of light agriculture at Southgate, which are remarkable from whatever standpoint they may be viewed. "I believe," he said in the course of an interview, "that fowls are responsible for a great deal of the tuberculosis in cattle. The idea occurred to me some time ago in connection with cat-rising in Jersey, where there is absolutely no tuberculosis among the herds, although there is just as much among human beings as there is in this country, and the reason suggested itself. Twenty-three per cent. of chickens—not merely young chickens—die from tubercular trouble, so it is significant that in Jersey farmers do not run fowls on the meadows."

In order to see whether this explanation would be supported by wider information, Doctor Corner wrote to the leading breeders of Jersey stock in this country with interesting results.

The marchioness of Lintithgow's herd on an estate near Edinburgh is one of the few in which there have been no cases of tuberculosis. It was started in 1886, and the cattle are very finely bred and therefore sensitive to disease. In answer to Doctor Corner's letter it was stated that no poultry were ever allowed to go on to the meadows where the cattle are. Several other replies were similar in import.

A peculiar case cited was as follows: An old farmer started rearing poultry on a small island, and in a very short time the game and rabbits which had formerly been flourishing were practically exterminated by tuberculosis.

In Doctor Corner's opinion the stalls of the grass are infected with germs of the disease which the browsing cattle are unable to escape breathless.

The doctor who does not share the general opinion that infected food is one of the principal causes of tuberculous in human beings, looks at the question from an agriculturist's point of view. "The first thing we must do," he said, "is to want clean cattle, so to exclude poultry from the meadows."

Perhaps the experiments, which are now being carried out under the Royal Agricultural society, in raising calves from infected stock will throw some light on the former point.

### LIONS ARE DRUG ON MARKET

African Animal Two Years Old Fetches Only \$80 at Recent Sale, in London.

London.—No self-respecting lion can hold up his head with pride any longer, for at present lions are a drug on the market, as the sale the other day by auction of the Crystal Palace zoo showed.

Lions with names that are household words were sold almost for a song. Duchess, for example, a two-year-old African lioness, in the pride of youth and beauty, born in captivity at the Dublin zoo, and therefore esteemed by wild beast showmen, went for \$80.

"Her value is at least \$250 in normal times," said a showman, who bought two lions himself at a remarkably cheap rate. "In Rhodesia, where the lions come from, you could get \$70 for her pet."

When the auctioneer's man went up to her cage and pointed to her with an iron rod, Duchess nuzzled up to it, and almost purred, so anxious was she to tell every one that she was a loving sort of lioness to have about a menagerie. But it did not save her from the indignity of a final bid of \$80.

The lioness Victoria, dam of Prince, went for less—\$70 securing her. Sultan, Prince's father, fetched \$100. Prince himself, by some freak of fate, realised \$500.

A Bengal tiger named Emperor, nine years old, was sold for \$525.

### MUSIC GOOD FOR FISH BAIT

Sportmen Have Excellent Luck While Worshippers Sing Religious Hymns on Bank.

Winsted, Conn.—Do fish like music? That is a question fishermen at Highland lake are trying to solve and most of them who have tried their luck fishing while the sunset religious services were in progress on Highland lake during the evening have come to the conclusion that music has charms for the fish. Upward of 150 cottagers assemble in boats and listen to a sermon on land. Singing is a feature of the services. Outside the anchored boats containing the worshippers, fishermen cast their files for bass and trout for pickerel. It is a very noticeable fact, they declare, that the fish bite better during the period of the services than any other part of the day.

Quite a Little Forest.

New York.—According to a census just completed by commissioner Stover of the department of parks there are 11,213 trees in the city, outside of those in the public parks from the Battery to One Hundred and Eighty-second street.

The commissioner made this census to enable him to estimate what funds are needed for the care of the trees next year. The allowance at present is \$25,000 a year.

### TO DEFRAUD PUBLIC

New York Bakers Make Two Sizes of Bread for Retailers.

Large Loaf Is Sold to Cash Customers Over Counter, While Smaller Size Goes to Those Who Order Goods Delivered.

New York.—In the course of a conference between Clement J. Driscoll, commissioner of weights and measures, and bakers of this city, a number of ingenious ways of defrauding the public were exposed. The conference was held with the object of formulating a plan by which bread may be sold by weight.

Several bakers admitted that it was customary for the wholesaler to make different sized loaves for the retailer, who sells one kind to the customer who comes to the store for bread, and a smaller size to those who order bread delivered at their homes.

The bread dealers are making a determined fight against the installment of Driscoll's new plan, and their arguments make interesting reading.

"How do you think that we can support our horses and wagons if we do not make an added profit on the bread which we deliver?" was the way the representatives of the New York Bakers' association expressed their point of view.

"How are we going to pay the janitor of every apartment house in town for permission to put the bread and rolls on the dumbwaiter, and get him to watch and see that they go to the right families, unless we make the consumer himself pay the added expense?" one representative asked.

"This thing is an established custom, and thus far the consumer has never shown that he is unwilling to pay a little more for the privilege of receiving his breadstuffs in his own house."

The commissioner, however, declared he would continue his efforts in the cause of selling bread by weight. He seemed to favor putting a small label on each loaf of bread stating its exact weight. The first objection raised by the representatives of the bakers' association was that this would be unsanitary.

"I don't agree with you there," said Driscoll. "At present several of the large wholesale bakeries paste their names on the loaves of bread baked by them, and so far as I have been able to find out there has been no objection to this either on the part of the consumer or the board of health."

A shop to shop canvass by inspectors showed a great dissimilarity in relative weight and price of different loaves.

The average of 14 loaves revealed the fact that the consumer generally received 2 1/2 ounces of bread for a cent, but variations were considerable. A French loaf weighing one pound cost ten cents, while a cream loaf weighing 24 ounces only cost 12 cents. Another loaf weighing 33 ounces cost eight cents, while still another loaf weighing 26 ounces brought six cents.

In explanation the baker suggested quality and appearance.

"This may be true," said Commissioner Driscoll, "but heretofore the purchaser has never had a chance to decide whether he would buy a heavy loaf or a light one for the same money. I promise to give him an opportunity. It is all right for him to know that it is extra light, but when he looks at two labels and discovers that he can get more bread for the same price, he is apt to consign the artistic qualities of the lighter bread to perdition."

### CONVICT SEEKING A PARDON

Missouri Prisoner Claims to Have Made Mathematical Discoveries of Great Value.

Kansas City, Mo.—Claiming to have made mathematical discoveries which will have a sweeping influence on that science, Michael Angelo McGinnis, serving a ten year sentence for forgery in the Missouri penitentiary, has offered to demonstrate his discovery to any committee of mathematicians Governor Herbert S. Hadley may designate if a pardon will be considered his just reward for success. His communication was sent through Dr. D. J. Simpson of Clarkburg, Mo. Dr. Simpson is the discoverer made by McGinnis of the reduction of the general equation of the tenth degree to an equation of one degree lower.

Among the discoveries claimed by McGinnis are: First, that for the general solution of an equation containing literal coefficients, there also lies a general logarithmic solution for its corresponding numerical equation, thus establishing a general method for solving numerical equations by logarithms; second, that he has found the exact ratio of the diameter of a circle to its circumference.

Since the time of Euclid the ratio has been supposed to be 3.1416 plus. McGinnis says he knows just what the "plus" is. He says he has discovered the exact root of all numbers, and that "imperfect squares" will be no more.

McGinnis is a descendant of John Napier, inventor of logarithms.

Salmon Pack Sale Average.

Seward, Alaska.—Reports received here are that the salmon pack in the Bristol bay district and also at Karluk and Uvak, Kodiak island, will fall far short of the average.

### AIRSHIP IN WAR MANEUVERS

Germany to Experiment With Aerial Cruisers for First Time—Schuette Fiasco.

Berlin.—It is stated that during the German naval maneuvers in the autumn an attempt will be made for the first time to utilize an airship in connection with the operations. It will be fitted with an installation for wireless telegraphy, and its functions will be to keep one of the combatants informed of the other's movements. With a view to this experiment, the commander of the High Sea fleet, Admiral Holtzendorf, recently took part in one of the military airship ascents from Berlin.

The aerial cruiser, which will be used for the trials, will probably be the new Gross, which has just been completed here. It is considerably larger than any of its forerunners, having a capacity of over eighty thousand cubic feet, a length of 395 feet, and a diameter of 42 1/2 feet. There will be two cars instead of only one, as in previous airships of this type, and each will contain a couple of 100-horsepower Koorting motors.

The monster Schuette airship, which has been under construction at Rheinfelden, near Mannheim, for nearly a year, and which at one time was expected to be shown at the Brussels exhibition at the end of May, is now reported to have experienced a fiasco without even leaving the shed in which it was built. The story goes that when the car was hung the wooden framework, which was circular in section, was distorted by the weight into an oval form, with the result that many of the joints gave, and in places irreparable damage was caused.

The wreckage must have been very considerable, if, as stated, a gang of 20 carpenters were at once set to work to prevent still further havoc. People are also wondering if anything has happened to the huge Siemens-Schuckert non-rigid airship, which was filled with gas and inspected by privileged persons as long ago as the beginning of April, but of which nothing has since been heard.

### "BRITTLE MAN" IS IMPROVED

Stoneline Muscles of Allan Rushbrook, Englishman, Relaxing Under Treatment.

London.—After having undergone treatment at more than 50 general hospitals in London and the provinces in the last ten years, Allan Rushbrook, the "brittle man" of Swainthorpe, Norfolk, has at last succeeded in obtaining some relief from his mysterious ailment at the Homeopathic hospital.

Most of Mr. Rushbrook's muscles have gradually turned to stone-like hardness, the only ones retaining any freedom of movement being certain muscles of the left arm and lower jaw. In his ward at the hospital, where he has been since April, the brittle man explained his conversion to homeopathy.

"I have only had two doses of medicine," he said, "but I am much better than when I came. I have had no pain for the last fortnight, and a hard spot on my leg which was just beginning to get away when I came in has entirely disappeared under treatment."

Then he wagged his head from side to side to show the increased flexibility of his neck muscles. "When I first came," he continued, "the muscles on the left side of my neck were immovable and stone-like; now they are quite soft and movable, though they still give a click when I turn suddenly."

The only medicine the brittle man has taken during his stay at the hospital is a few drops of tincture of arbor vitae greatly diluted with water. The first dose was given early in May, the second a month later. In view of the marked improvement in the symptoms and the apparent stoppage of the progress of the disease, hopes of a permanent benefit are held out to the patient by the physicians in charge.

### DANCING AS AN EDUCATION

Subject Under Discussion at the Last Sitting of Women's Congress in London.

London.—The importance of dancing as an educational asset was the subject under discussion at the last sitting of the Women's congress at the Japan-British exhibition.

"Educationalists are agreed," said Cecil Grace, "as to the desirability of introducing dancing in the schools. It is one of the most primitive and universal of all the arts. True dancing is an artistic expression of an inward idea."

"It is necessary that school children should have some subject to nourish the imaginative faculties."

After an interesting display of the old-fashioned Morris dances, Mr. Grace added that the objection to dancing made by certain people was stemmed by the fact that the Morris dances were performed by persons all of the same sex—originally men—and in them the love motive was entirely absent."

Mouse Eat Marriage License.

Des Moines, Ia.—A mouse may have been the cause of a Barbary Dennis of Grand Island, Neb., losing a government pension as an old soldier's widow. She wrote the clerk of the Polk county court here:

"I've been married since 1842 but can't prove it. A mouse ate the date out of my certificate."