

THE WEATHER PLANT.

Its Changes Meteorologist Will Make Long-Distance ast

Probably the more action objection to our "weather indicatents" (great an advance as mey are over none at all, which was the position not so many sgo) is the shortness of their ars In a head. Many vain efforts have been made to improve this particular. Again, what a difference it would have made to Johnstown, San Francisco and Valparaiso if timely notice could be given of floods and earthquakes! Pompeli and Courrieres, if volcanic ruptions and liability to mine explosons might be foretold! The ability by one means and, as it were, at



THE WEATHER PLANT. Abrus Praecatorius L. Nobilis N. ir the Uncultivated State.)

blow, to remedy all these defects, is the startling claim of an Austrian meteorologist, J. F. Nowack.

The sole reliance of Herr Nowack his barometer (if one may so say), is West Indian plant, Abrus praecatorlus L. nobilis N., the so-called pater noster pea. By an accident, says the New Yorker Staats-Zeitung, Herr Nowack came into possession of this plant, and he soon made the observation that its leaves (which resemble the leaves of the acacia or vetch) colled up apparently without any perceptible reason and seemed to die. This condition, however, lasted but a few hours; then the leaflets returned to their normal state. Herr Nowack

satisfactorily ascertained that this



leaf-midribs) of great "convuisions of nature," such as storms, rough weather. floods, earthquakes, volcanic erup tions, increase in the danger of mine explosions, etc., 24 days before in a circuit up to 7,000 kilometers (4,350 miles), i. e., from a station, e. g., Ber lin, of (about) all Enrope, the Mediterranean Sea, the northern half of Africa, and the softh atlantic ocean. Her Nowack declares that after funding his observation establish ment he will be able to publish daily

the following charts: 1. Two or three days beforehand, "isobaric changes" in a circuit of 3,090 kilometers and over.

2. Two or three days beforehand. the "rain-districts" and those of "fine weather" for the same circuit.

3. Twenty-four to 28 days beforehand. the "dangerous convulsions of nature;" such as hurricanes, storms, rough weather, floods, spring tides, increasing danger of earthquakes and of heavy downpour, etc., etc., up to 7,000 kilometers. And, finally, 4. Two to seven days beforehand,

the "local weather" for a circuit of about 75 to 100 kilometers

What enormous practical importance such predictions must have is so clearly obvious that no words are to be wasted over it. . . . Herr Nowack is now planning shortly to reap the benefit of his observations carried on for years by opening an observatory in London, with several branches that is to bring the predictions within the reach of all. And to this end he has collected a great quantity of specimens of the above-named plant in Cuba, which are to be taken to England on the next German fast steamer.

HOW LONG IS A FLASH?

Duration of Flashes of Lightning Meas ured by German Scientist.

We possess as yet only pretty vague data as to the average duration of flashes of lightning, says L'Illustra-Faraday thought he could fix tion. it at a second. Dufour claimed that the flashes of lightning were instantaneous, and that their rapid succession gave the illusion of one flash of a certain duration. Herr Schmidt has just been devoting himself to a series of observations, employing a disk of 10 centimeters diameter bearing upon a black ground a white cross, the arms of which were two millimeters across, the disk being set in motion by clockwork with a speed of 50 to 60 revolutions a second. At certain flashes the cross appeared a single time, very distinct; the duration of lightning was, therefore, inferior to the time of revolution of the disk, which would represent about the fiftieth of a second. In more numerous cases the cross appeared two or three times, or even more, but with a decreasing luminous intensity; the lightning had, therefore, lasted during several revolutions of the disk

NO MORE GRAY HAIR.

Restoration of Color of Hair By X-Ray Current.

While busying themselves daily with making applications of X rays, Dr. Imbert, professor of the medical faculty at Montpellier, head of the second surprised that the beard and hair (which were almost white) of one of them were gradually becoming colored, to the point even of shortly as-

BARS SUNDAY LABOR

ONE RAILROAD IS COMPLETELY TIED UP ON THAT DAY.

Edward J. Wilcox, Owner of Argentine Central Line, Gives Men and Roll-

ing Stock a Rest One Day in the Week.

Denver is the home of a man the courage of whose convictions has been tested to the extent of \$500,000. And he still holds steadfastly to his principles, in spite of the fact that his friends have warned him that the pursuance of his policy will injure him financially.

The man is Edward J. Wilcox, builder and sole owner of the Argentine Central railroad, and he has displayed his courage by not permitting a train to run over his road on Sunday. Neither will he permit the insertion of a line of advertising concerning his railroad or other business interests in the Sunday issue newspaper, although a great believer in advertising and spending a liberal allowance with the dailies of Denver every other day in the week.

The Argentine Central railway cost Mr. Wilcox more than \$450,000, and he built it entirely with his own money. Yet he believes that no man should do business on Sunday, and he insists that his road will pay expenses and be a winner in due time if he strictly observes the Sabbath. And the first month's earnings seem to justify this belief.

Strict adherence to religious and business principles has marked the career of Mr. Wilcox, who went to Colorado penniless and is now reckoned a multi-millionaire, his fortune being estimated at about \$5,000,000. He was born in Creedmore, Ont., Canada, and when 21 years of age, went to Colorado, with no advantages to place him at the top rung of the ladder of financial success beyond the possession of good health and a strong pair of arms

Mr. Wilcox secured work as a miner in the Cashier property near Monte-He soon decided that great zuma. wealth was not to be obtained by man ual labor. So he saved his money and took a course at the Colorado state school of mines, qualifying in five years as an engineer.

Then he began to hunt mines for other people to develop. A little later he sold the Wilcox tunnel at Idaho Springs to Big Five Mining company Success followed him until to-day he is the owner of or controls the Waldorf mines at Argentine, above George town, valued at \$3,000,000, the Manhat tan Union Mining company, the Bankers' Land & Investment company, along with coal lands and real estate in various portions of Colorado. He is the owner of much property on Capitol hill in Denver.

The Argentine Central railway which has made the owner famous because of his refusal to run trains over it on Sunday, is nine miles long. It ads from Silver Plume, where it



TAKES PLACE OF BRIDGE

Overnoad Ferry Used in Crossing Wide Rivers in Europe.

Instead of building bridges, overhead ferries are being adopted in some places where traffic has to be taken

across, say, a wide river. The overhead ferry-as the smaller general view given shows-co---a large car suspended by capies from a bridge-like steel framework, and worked to and fro by electricity. Horses, vehicles and even railway coaches, are carried in the center por have been many indications that tion of the car, whilst on either side

is a division for foot passengers. China was awakening to western In most overhead ferries at present ideas and progress, and this fact is in use, the fare for vehicles varies ac-



herself to become director of the proposed library. Miss Wood has been cording to whether there are one, two granted a year's leave of absence by or more horses, and whether the vehithe board of Episcopal missions, with cle is empty or loaded. The car is which she has been connected for hung at such a height that it will pass seven years, and has left her classes over the funnels and masts of the in the mission school there, in order largest vessels afloat on the water be to learn how to put her little beginlow. ning of a library into good shape for

It may be mentioned that the cittes of Nantes and Rouen, in France, have overhead ferries, and Liverpool, England, has a splendid specimen, spanning at once the Mersey and the Ship canal.

mission there. BETTER THAN THE SEMAPHORE. enal one on account of the great

Audible Signals Now in Use on British Railroad.

The Great Western railroad in England has successfully experimented with and just installed on a branch line a method of audible signaling as a substitute for the familiar semaphore system, which it is believed will be entirely displaced in course of time.

The new system is electrically worked and is declared to be simplicity itself. The engine as it travels along the line confes into contact with an apparatus fixed to the track, which is worked from the signal box and sets in motion a form of méchanism on the engine. Instead of the engine driver having to look out for his signals they declare themselves to his ear unmistakably. "Line clear" is expressed by the blowing of a whistle, which continues until the engine driver with his own hand turns it off. Both bell and whistle are fixed inside the engine cab, close to the engine driver as he stands at his lever, and should afford a more telling means of notification than a dial on

which visible signs appeared. The substitution of audible for visible signals would relieve engine drivers of the strain of perpetually looking out for any particular signal or lamp. The apparatus is so constructed that if anything went wrong anywhere the whistle signal would operate. The chief value of the audible signals would be found in foggy weather, and the new system is thereore of particular importance in country so tos afflicted as England is.

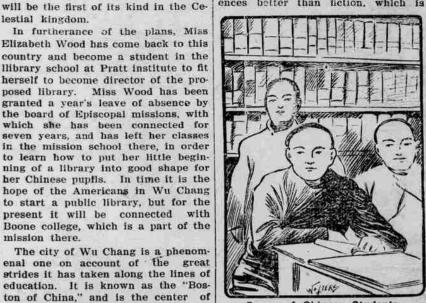
Recent Railroad Statistics. The railroad statistics recently made public by the interstate commerce commission are interesting as showing how much of an increased demand the railroads of the country The brigantine Galilee is a pe made upon the labor supply. The culiar ship and has a peculiar mission. number of persons in the employ of the railroads of the country for the year ending June 30, 1905, was 1,382,-196, a vast army when one stops to consider how large a crowd a million and a third of people would make. But apart from this aggregate, the increased number over that of 1904 was 86,075 employes, still a large sized army, and equal to 26 employee for every 100 miles of line. This was the number the railroads of the coun try were themselves employing, but indirectly there was a large additional force at work for them. During the year there were added to the equip ment of the railroads 1,614 locomo tives and 44,310 cars, and it is esti-Course of the Galilee Over the Pamated that during the year closing June 30, 1906, all these figures were She is so constructed as to be what largely increased, while the present year will show the largest figures is called an insulated ship, and she has before her one of the most exever made public. During the first 39 tensive voyages ever planned for a weeks of the present year the railship of her size and tonnage, and this roads of the country have placed orders following a seven months' cruise for 218,298 freight cars, thus breaking from which she has just returned all records, but the demands of traf to San Diego, Cal. During that time

On the American Plan.

LIBRARY TO RUN IN THIS WAY | our library. Our idea is ultimately to found a public library. AT WU CHANG.

"Our books at present are all English, but we hope to get some Chinese books before long. We are now teaching the Chinese boys how to use a library. As yet they do not seem to know exactly what it means. But they are very much interested, and are adopting our American methods During the past year or two there very readily. There is great excitement when the boxes of books come, and the boys, although not enthusias tic by nature, show a very good imiemphasized by the action of the oritation of it at these momentans he entals at Wu Chang, China, who casions.

"Strange to say, they like the histories, the biographies and the sciences better than fiction, which is



Group of Chinese Students

slightly different, I believe, from the little story loving American children. This is perhaps because their own fiction is so bad; they cannot seem to think that any literature of this kind can possibly be good. We have a very nicely fitted up reading room, where most of the American and English magazines are on hand for them. We really have to urge them to read the fiction, and they do not care for the peetry, either.

Last summer, during the vacation, the librarians allowed the boys to take home 300 books, and all were returned in good condition at the beginning of the fall term. There is also a traveling library, on a small scale, by which the students who order to put our own library on a have gone far into the country to more systematic basis. It probably small mission stations may be supwill not be necessary for me to take plied with western literature. They are sent, too, to the foreign missionexperience in this line before I went aries who are located among the mountains. Not long ago a load of so during the last part of my year books was carried six miles straight I hope to be able to spend my time up a mountain by coolies to these in trying to interest the people in book-hungry workers."

On a Recharting Cruise. BRIGANTINE GALILEE TO ENCIR- | en ones or covered with insulating

material. Even screw and nall heads CLE THE GLOBE. are covered with putty and varnish, and the cabin stove was so fenced in

with asbestos and other non-conductensive Voyage Planned for Insulated Ship During Which New Charts Will Be Made and

Magnetics Studied.

cific.

the quartette of scientists on board

made hundreds of magnetic ob-

ing substances as to render it quite nrecognizable. the deck and electrically inabove sulated from the remainder of the ship are placed the delicate magnetic instruments by means of which the observations are taken. Only two previous attempts have been made to obtain anything like systematic or accurate magnetic data of the Pacific, and these were made. under conditions which greatly handicapped their success. The course taken during the recent. cruise may best be described in the words of Mr. Peters as a "slackwise spiral," of which the first turn included San Diego, Fanning island the Samoan, Fiji and Ladrone islands and Japan, returning by the "great circle track" used by oriental steamship lines to and from the North Pacific coast. Succeeding turns of the spiral were made within the first or other one, gradually decreasing until the entire area had been covered with coils about 300 miles apart.

Missionary Returns to This Country to Fit Herself to Carry Out the Progressive Wishes of

lestial kingdom.

Chinamen.

want a library run on the American

plan, and which when it is started

The city of Wu Chang is a phenom

western learning in that country. In

fact, it is the most Americanized of

all the Chinese cities. It is situated

in the central part of the country,

near Han Kow, the great tea port, and

Han Yang, the trading center. In

the last two cities there are compara-

tively few foreigners, but in all three

there are over a million inhabitants.

Wu Chang can boast of 10,000 stu-

dents who daily go to the great

schools there to learn what the west

has to teach to the east. There is

little of the old eastern learning

taught. Twenty thousand soldiers are

also among the citizens of Wu

Miss Wood, in speaking of her work

"I came to Pratt in September in

the entire course, as I had had some

China, in my house in this state;

Chang.

to

the other day, said:

The Weather Plant Under Cultivation

striking phenomenon was dependent upon neither the light nor the moisture or temperature conditions, but was connected with a severe storm that occurred three days later. This observation, which Herr Nowack made in the year 1886, forms the basis of his further unspeakably careful and remarkably comprehensive investigations.

The result of his observations, extending through years, made with quite special precautions, in various botanical gardens, but especially in the Kew gardens, London, upon the 'weather plant," is briefly told as follows:

To make the predictions, let the leaflets and the leaf-midribs (to which are attached 12 to 17 pairs of leaflets), as well as the color of the little leaves, be observed. The motions of the leaflets permit one to predict kind. force, moment, and direction of those phenomena that will occur in a period of two to three days, and within a radius of 75 to 100 kilometers (from 47 to 62 miles) distance from the observation-point. Further, the lowering of the atmospheric pressure (baromeric minimum) may be satisfactorily ascertained by means of the motion of the leaf nerves upward, and its rising (barometric maximum) by their motion downward, two to three days beforehand, and therefrom the rain districts also to a distance of about 3,000 kilometers (1,864 miles) be predetermined.

The most important part, however, of the discovery is the prediction (deduced from the observations of the

suming a hue deeper than the origina

Other observations authorize these professors to declare that under the influence of the X-rays light hair assumes a deeper shade. Young women will, no doubt, find little use for this attribute, but a process which permits of growing old without growing gray, will be highly appreciated by both sexes if further investigations establish definitely its usefulness and its harmlessness. However, physicians alone will have the right to dve hair by this method, as extreme prudence is required in the operation.

Science Turning From Alcohol.

In Great Britain, at least, the medical profession seems to be turning more and more away from alcohol as an ald to patients suffering from disease or injuries of any kind. Some British surgeons claim that its use, in any form, tends to render persons subjected to operations less likely to escape complications and actually retards recovery.

Produces Cancer.

Dr. Otto Schmidt, of Cologne, is said to have produced cancer in certain animals by inoculating them with cultures of the true cancer bacillus obtained from mildew on plants. Dr. Schmidt is hopeful, having gone so far on the road to complete understanding of the nature of cancer that he will be able soon to announce a real cure for that terrible disease.

Fog Dust.

Careful analysis of matter obtained from a dry, yellowish fog which overspread Paris on April 11 has shown that the cause was almost certainly the eruption of Mount Vesuvius. Dust in the fog contained a minute sand exactly like that which the volcano on the distant shores of the Bay of Naples has more than once discharged.

A Peculiar Lake.

Metal does not rust in Lake Titicaca, South America. A chain, an anchor, or any article of iron, it thrown into this lake and allowed to remain for weeks or months, is as bright when taken up as when i came fresh from the foundry.

ern, to Gray's Peak, on the summit of Mt. McClelland, an altitude of 14,-007 feet.

"I don't believe in doing business on Sunday," says Mr. Wilcox. "Not an office of mine shall be opened on that day and none of my trains can run on Sunday. My friends tell me that I am losing money. But I doubt it. I believe the road will pay by sticking to the principle of six days for work and the seventh for rest from our labors. The first month's earnings of the road have demonstrated this, and I believe that it is bound to be the heaviest earning piece of railroad for its mileage in the state of Colorado."

Caribou on New Brunswick Railroad. Near Lakeland, a station this side of Rogersville, a herd of seven caribou crossing the track directly in front caused the north-bound day express, in charge of Conductor Corbett, with driver Donald at the throttle, to put on brakes, says the Chatham World.

Rounding a turn the driver sighted the herd of animals browsing the grass and bushes which skirt the track, and as the train drew nearer the caribou started to cross the track. walking in a leisurely manner. Repeated blowing of the whistle had no effect other than to cause some of the caribou to stop in the center of the track.

As the train came nearer and nearer, however, they abandoned their dangerous positions and gracefully clearing the fences which · bordered the railroad vanished into the forests. but not before the passengers had had an opportunity of witnessing the

rather remarkable sight.

Cost of Line of Road.

Belle Isle straits to Newfoundland, The average cost of constructing a bringing St. John's into direct commile of railroad in the United States, municat at the present time, is about \$30,000. sidered. munication with Quebec, is being con

every day.

fic have increased in proportion. A Religious Railroad.

The Hedjaz railroad, which is to unite Damascus with Mecca, is being built for the purpose of carrying pilgrims to and from the latter, the holy city of the Mussulmans. For the larger part of its course of some 1,200

miles it will pass through deserts, idle and unfertile regions. Still, it will benefit some of the country about

servations, and practically recharted the Pacific ocean. She was sent out by the Carnegie Institute of Science at Washington. The Galilee is especially adapted

the Jordan, a district whose crops have no market on account of the want of transportation; and branch lines for commercial and industrial uses will be constructed. From Da-

mascus to Maan, about 400 miles, the road has been doing business for some months. Germans superintend the job. Turkish soldiers do the Shakespeare's shade was perusing work; and they don't get much pay. one of our theatrical programs.

"It is all very well," he mused, "to To Mecca by rail, personally conduct ed! The world is growing smaller by William Shake-"Hamlet." read, speare,' but think if it were instead: "'Costumes designed by Shake-

speare, Paris."

Long Tunnel Projected. A 20-mile railroad tunnel under the

"'Scenery painted by W. Shake speare.

"'Electrical effects by the Shakespeare company, Stratford-on-Avon.' | more gently."-Judge.

IMMORTALITY.

Every two or three days at sea the vessel was swung and slowly turned completely around, while observations were being made to determine the three elements of magnetic force.

The Gailiee is to start this month on the longest and most important voyage she has yet attempted. Her course will be around Cape Horn to Washington, thence across the Atlantic, taking observations en route, to Gibraltar; through Suez canal via for the taking of magnetic observa- the Mediterranean sea and to the Intions under the most favorable condi- dian ocean, where observations will tions. In so far as was possible all be taken to a considerable extent. metallic substances have been re- From the Indian ocean the course will moved, all the steel rigging taken off lie back to San Diego, completing the and old-fashioned hemp substituted. circle of the globe. The voyage will Brass railings are replaced by wood- occupy two years.

> "'Interpolated coon songs by Will Shakespeare.'

> Disappointed and remorseful, he re lapsed into spooky silence .- N. Times.

> Editorial Gentleness. The office-boy had pied the first page by dropping the form down two flights of stairs.

"I wish," murmured the gentle editor, "that you had broken the news