



Measuring Wind by Music.
Dr. Carl Barus has recently shown how the velocity of the wind can be reckoned by noting the musical pitch of the sound given out when wind blows across a stretched wire. The principal elements on which the calculation is based are the diameter of the wire and the temperature of the air. The length of the wire is immaterial, so long as it is not changed. Every variation in the wind's velocity is faithfully represented by the rising or falling of the pitch of the note sung by the wire.

Giant Plants on Mountains.
Recent explorers of the Caucasus Mountains have reported the existence there of a peculiar race of gigantic herbaceous plants growing at a height of nearly 6,000 feet above sea-level. Plants belonging to the same botanic families, but growing at the bottom of the valleys below, do not attain an extraordinary size. For instance, a species of campanula—our ordinary harebell—is a campanula—grows only two feet high in the valleys, but on the mountains it reaches a height of six feet, and its stem becomes thick and rigid, like that of a small tree.

Armies on Ice.
Army engineers in various countries have calculated the thickness of ice necessary to sustain certain weights. Ice two inches thick is deemed strong enough to bear a man's weight, according to a summary of the army rules on this subject published in "Engineering Mechanics," and on such ice infantry may march if the distance between each man is properly spaced. Cavalry and light field guns can cross ice four inches thick. Six-inch ice will sustain heavy field guns; eight-inch ice artillery batteries with horses; and ten-inch ice "an army or an innumerable multitude." On fifteen-inch ice railroads have been laid and operated for months at a time.

The Fluoroscope.
Mr. Thomas A. Edison has invented an apparatus, called the fluoroscope, by the aid of which a surgeon, instead of photographing with the X rays the bones or other hard substances concealed under the skin and flesh of a patient, may actually see them. The machine depends for its action upon the fact that the X rays possess the property of rendering luminous certain substances, which chemists call fluorescent. Mr. Edison first determined, by experiment, that the best fluorescent substance for this purpose was calcium tungstate. The tungstate is spread in a smooth layer upon a piece of pasteboard which forms the bottom of a small box, having holes for the eyes at the upper end. A Crookes tube, enclosed in another box, is excited by a current of electricity, and if the hand, for instance, is to be examined, it is placed upon the box containing the tube. The observer then looks into the viewing box, whose tungstate-covered bottom is placed directly above the hand, and sees, with startling distinctness, the bones and joints, showing as dark and delicately graduated shadows, while the flesh is only faintly visible. The reason the bones appear is because they intercept the X rays, and thus prevent the tungstate surface from becoming fluorescent where their shadows fall.

The Banners of the Sun.
The expedition which will go from the Lick Observatory to observe the eclipse of the sun in Japan next August will carry a novel photographic machine to picture the great coronal streamers that are seen around the sun when its globe is hidden behind the moon. The sun's corona has been photographed during previous eclipses, but as its light is much stronger near the sun than at a greater distance, the photographs have invariably been overexposed for the brighter part of the phenomenon when so timed as to catch the image of the fainter parts; and, conversely, the outer portions of the streamers have been lost in the photographs when the exposure has been made short enough to give a good image of the bright inner portion. Mr. Burckhalter, of the Chabot Observatory, Oakland, who will accompany the expedition referred to, thinks he has contrived a machine that will equalize the exposure for all parts of the corona, and thus enable him to get a perfect photograph of the wonderful display around the sun during the eclipse. The principal feature of his invention is a rotating diaphragm, driven by clockwork and provided with a peculiarly shaped hole for the passage of the light, whereby the faint outer part of the corona will get a much longer exposure than the brilliant inner part.

MONEY IN OSTRICHES.

An Experiment to Be Made in Florida to Raise These Birds.

"It occurred to me many years ago," said Mr. H. J. Tiffin, "that if ostrich farming could be successfully carried on in California, the same might be done here, especially if it were simply a question of climatic adaptability, for the climate of east Florida is more similar to that of South Africa, the habitat of the bird, than is that of California. I have closely watched the progress of these latter farms, becoming more interested yearly, so that last fall, when, in Atlanta, I had an opportunity to purchase some ostriches, I secured two, male and female, and brought them to my Indian River place on Merritt Island, which is about latitude 28. These birds did so well, seeming so perfectly at home and well adapted to the conditions, that I went back to Atlanta and bought the lot, fifteen in all, some of them very large and valuable, and I now have them all at home. Most of them were raised on a Los Angeles farm, but a few are native African birds.

"The value of an ostrich in South Africa is about \$500. I bought mine for little more than \$100 apiece, so that I may be said to have made quite a bargain. The birds seem to be perfectly at home, and feed upon the grass which grows plentifully upon my place. I also give them large quantities of corn and other grain, and occasionally try them with a little meat of some kind, of which they eat sparingly, for the ostrich is strictly a graminivorous feeder. When I first brought them down they ate little, and I concluded I must give them an appetizer, which I did, each one, in the shape of a good-sized asafoetida pill. Since that time they have eaten ravenously.

"Ostriches are like quails, in that they pair off, and need a run to themselves, separated from other pairs. At present mine are all together, as I have not had time to arrange their quarters. In Africa on the large farms a pair has about forty acres to run in. I shall give mine only about two acres, which may be small for them at first, but to which I am sure they will readily adapt themselves in time. My birds have already begun laying. I have gathered about six eggs, and the season is just beginning. Fifty eggs are laid during the season, one laying season to the year. The average weight of an ostrich egg is thirty-four ounces, some, of course, much larger, and it has the appearance of a ball of ivory. The shell is thin and delicate, and smashes easily if dropped when containing the yolk, but if the yolk is removed the shell is durable as china, and is largely used among natives as a drinking cup.

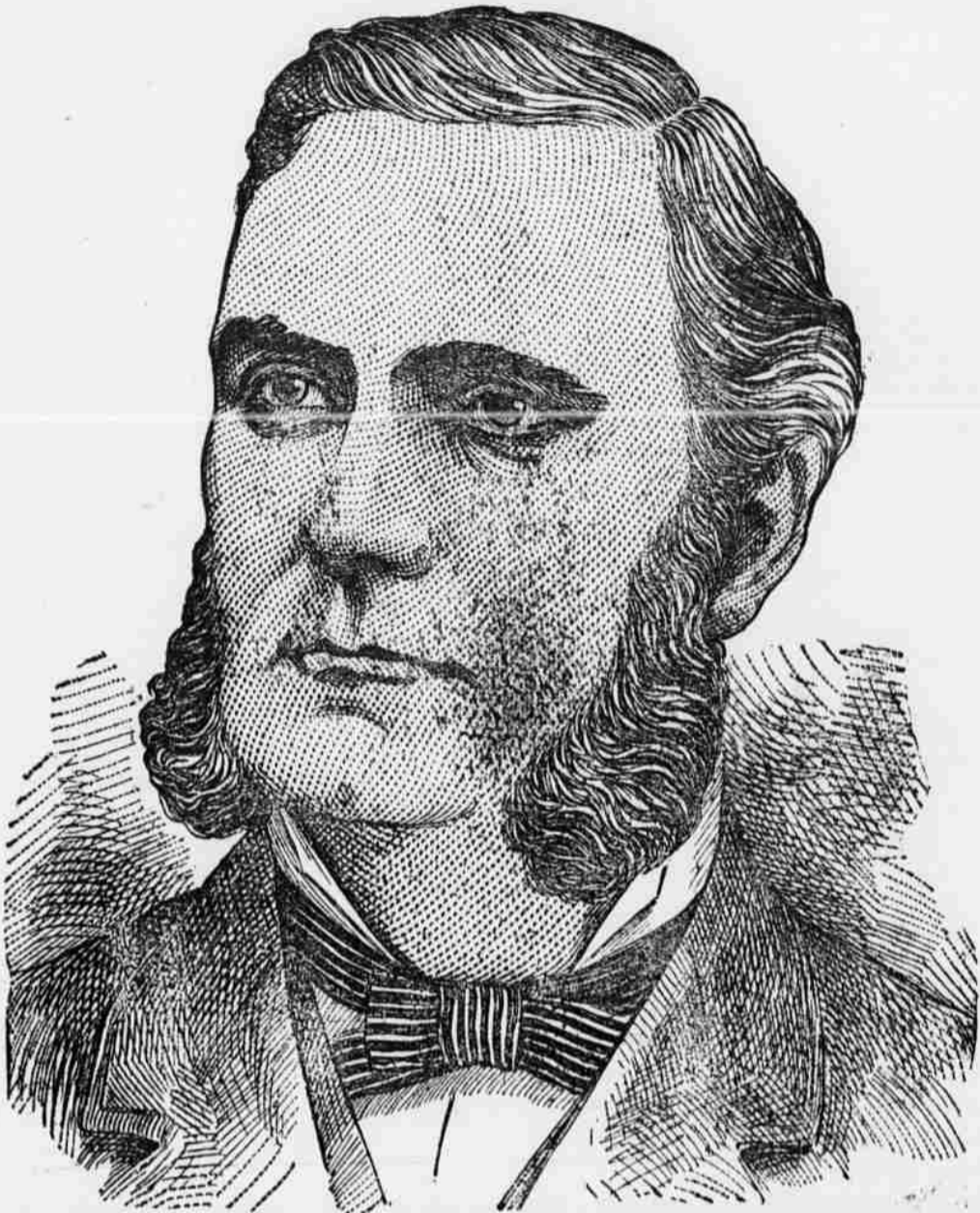
"Ancients used them commonly, and the famous draught of the pearl dissolved in vinegar is supposed to have been taken from an ostrich egg. The female sits on the eggs during the day, the male at night. This seems to be nature, but most ostrich farmers now use incubators, especially as the male bird manifests an unaccountable grudge against the young one, and kills it if possible. I shall introduce the incubator when I begin raising birds. Ostrich eggs sell for \$20 apiece, so fifty eggs a year makes a bird very profitable aside from the plumes, which bring in about \$600 per year. The finest feathers grow under the wings. Those of the male are usually black, and are the finest of all; the female plumes are lighter in color, and permit dyeing. Tail and breast feathers are also valuable. The finest feathers produced by the ostrich are the three plumes used as a head dress by the ladies of the court of St. James, and those who are presented to the Queen. Certain feathers are in demand for this, the finest on the bird, and they bring, of course, the highest prices."—Jacksonville Citizen.

Mail-Protected Monarchs.
From 1885 to the time of his death the late Czar of Russia never appeared outside his bedroom and study without a fine steel suit of mail, which would protect his body from the dagger of the assassin. Excepting his valet and his wife nobody had seen his suit of mail, but the Czar's unwillingness to go even to a cabinet council without it was an open secret in all the courts of Europe. Bismarck at one time wore such a coat, as did also Stambouloff and Crispien. The Italian ex-premier, indeed, still wears, for protection from the assassin's bullet or knife, a light shirt of mail of double thickness over the heart. None of these men, however, resorted to such precautions until repeated attempts at assassination had been made. Nicholas II. of Russia has waited for no such attempt on his life. Ever since the last arrests of nihilist students at Odessa he has worn a shirt of nickel and steel.

Better than "Keep Off the Grass."
"I should think the tourists coming to this place would destroy this lovely park of yours," said the Northerner to the Floridian.
"Well, they used to pick up the cinders and steal my coconuts, but I put up that sign over there, and since that time they've respected my rights."
The Northerner walked over to the sign and read as follows: "Please do not irritate the rattlesnakes."
Never read a book that refers to a woman as "a piece of delicate Dresden china." This is the stamp of a trashy book, and a trashy author.

JUDGE OF THE SUPREME COURT.

Congressman Powers Enthusiastic Over Paine's Celery Compound, the Greatest Spring Remedy.



Judge Powers, who today represents Vermont in congress, entered the national house with a magnificent record as lawyer and judge of the supreme court of Vermont.
He is a fine type of the careful, learned, New England lawyer.
Though but 56 years of age, he was a member of the Vermont legislature a third of a century ago, and again in 1874, when he was speaker of the house. He has been state censor, a member of the constitutional convention and of the state senate. In 1874 he became judge of the supreme court of Vermont, and remained on the bench until 1890, when he took his seat in congress. Judge Powers presided at many of the most notable trials in the history of the state, and is the author of many of the most important opinions to be found in Vermont reports.
No judge on the supreme bench in any of our states has a reputation for more clearly and unmistakably expressing his opinions. His unqualified indorsement of Paine's celery compound in the following letter is as straightforward and concise as any one of his

thoughtful charges to a jury:
House of Representatives, U. S.
Washington, D. C., Feb. 19, 1896.
I have for several years been acquainted with the medicinal qualities of Paine's celery compound, and can enthusiastically indorse as a specific in many cases for which its use is recommended by its proprietors.
H. HENRY POWERS,
1st Dist. Vt.
By far the best use that any tired or ailing person can make of these precious spring days is to purify the blood and regulate their nerves with Paine's celery compound. It is plain to any observant person that the best remedy for neuralgia, persistent headaches and such like indications of low nervous vigor, is the one that most rapidly and completely nourishes the worn out parts. It is not in the power of any other remedy to do the vigorous work of Paine's celery compound in strengthening the jaded system, and in bringing it back to an energetic, healthy condition.
The real danger that stares sick people in the face is the putting off attending to sickness and disease, and letting slip these health-inviting

spring days, when everything so strongly favors getting well. This greatest of all spring remedies is doing an astonishing amount of good these days among sick people and those semi-invalids who are "run down" by the long, trying winter, or worn out and afflicted by disease.
The soul and life of sound health is a well-nourished nervous system. Paine's celery compound repairs the worn, nervous system as nothing else can do. It is the one certain and permanent cure for sleeplessness, hysteria, nervous debility and exhaustion, rheumatism, neuralgia and the various manifestations of an unhealthy bodily condition, such as languor, nervousness, heart palpitation, loss of flesh and mental depression.
With Paine's celery compound, returning strength and cheerfulness soon show that one is undoubtedly on the right road to health.
Paine's celery compound is the one real spring remedy known today that never fails to benefit. Get Paine's celery compound, and only Paine's celery compound if you wish to be well.

HOTT SCHOOL FOR BOYS.
BERLINGAME, Cal.
"This excellent institution closes its fifth year accredited at both of our universities. Ex-State Superintendent Hott is well known in educational matters. The mention of his name as master of the school is a guarantee to all who know him, that none but first-class teachers are employed and that the school under his management ranks among the first of its kind. Nowhere are boys better cared for."—San Francisco Call.

Billet—Fahrkarte.
It would be an advantage to have all over the world the same word for ticket, for railway, for postoffice and so forth. And something of this sort, however rudimentary, did actually exist on the continent before the German empire arose and, in its newly awakened self-consciousness, did its best to blot it out. In those days, for example, the word always used in Germany for ticket was "billet," and every educated man in Europe understood it. Now the word is "Fahrkarte," a word understood only by Germans and German scholars. It is a sorry perversion of patriotism thus to complicate the intercourse between nations. Nor has the effort even the merit of success. "Billet" is rejected as being French, but what of the second syllable of the word that has been substituted for it? No doubt "charta" is Latin, but it is equally certain that it has reached Germany through the French "carte." This is but one instance out of many. Germany, however anxious to be free from obligations to other countries, must still borrow many words from her hereditary foe.—Contemporary Review.
Twenty-one thousand one hundred and eighty-five shorthand writers against 7.
Three thousand nine hundred and forty-nine success against 104.

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