

LEARN FACTS ABOUT STEEL

TORTURE APPLIED TO FEET

Interesting Discoveries Concerning Most Useful Metal That Have Recently Been Made.

Very fascinating are the unsolved problems of metallurgy which were discussed at a recent meeting of an institution of civil engineers.

There is a common carbon steel which, when heated to 725 degrees centigrade and quenched in brine bends on becoming cold, 43 degrees, and possesses the hardness number 228 on the Brinell scale. If heated only ten degrees higher, to 735 degrees, and then quenched and cooled, it bends only 1½ degrees and its hardness becomes 512. Finally, when the heat is increased another 5 degrees, to 740 degrees, the effect is that the steel will not bend at all and its hardness number rises to 713.

All these results are produced by a range of temperature less than that experienced by the air on an ordinary spring day. There is a steel containing 20 per cent of nickel which is almost non-magnetic and has a tenacity of 40 tons per square inch. If immersed in liquid air it becomes strongly magnetic and its tenacity rises to 115 tons. Then, after returning to ordinary temperature, it retains a tenacity of 115 tons.

RELATIVES DIED WITH CUSTER

Many Members of the Famous Soldier's Family Lost Their Lives in the "Massacre."

In the battle of the Little Big Horn, popularly known as the "Custer Massacre," in the government's campaign against the Sioux Indians in the summer of 1876, and in which, besides Gen. George A. Custer, every man in his command lost his life, several near relatives of Custer were among the killed.

With Custer in that memorable fight was his brother, Capt. Tom Custer, the only man in the United States army who held two medals for capturing two flags with his own hands in the Civil war. After the battle the Sioux chief, Rain-in-the-Face, made good a previous threat, and accomplished a terrible revenge for an old grievance against Captain Custer by cutting open the breast of the brave young soldier and eating his heart. Calhoun, a brother-in-law of the general, was among the slain, as was Boston Custer, another brother of the general, who was civilian forage master of the Seventh cavalry, and Autie Reed, the general's nephew—a mere boy, who wanted to see something of life in the West, and who had welcomed with joy this opportunity to make the campaign.

Learned Barbarisms.

The use of Greek or Latin roots from which to form new words, required by the advance of scientific knowledge, is almost universal among learned men. On the whole the practice is useful, but it can be carried to absurdity. Dr. Bradenell Carter, the English oculist, in one of his books, protests against doctors who air their supposed acquirements by coining horrible verbal compounds that are usually intended to express very simple conditions.

I have, he writes, seen dacryocystosyngkatakleisis used to express obstruction of the tear duct, and anaplastostroctis to express inflammation of the retina of the eye. I once met a country cabinetmaker who built wooden frames, covered with needlework, to protect polished fenders against the feet. He sought a name for his contrivance from the local schoolmaster, who furnished him with antirubso-dothecidion and with a literal translation—an against-friction-of-the-ashes receptacle!—Youth's Companion.

Paradise of Departed Heroes.

The way in which the departed Scandinavian heroes passed their time in Valhalla, or in the palace of Odin, is described in several places in the Edda.

They have every day the pleasure of arming themselves, marshalling themselves in military order, engaging in battle, and being all cut to pieces; but when the stated hour of repast arrives their bodies are reunited, and they return on horseback safe to the hall of banquet, where they feed heartily on the flesh of a boar and drink beer out of the skulls of their enemies, until they are in a state of intoxication. Odin sits by himself at a particular table. The heroes are served by the beautiful virgins named Valkirie, who officiate as their cup-bearers. But the pleasures of love do not enter at all into the joys of this extraordinary paradise.

Made No Hit That Night.

A certain actor, who walked across the stage in a street scene of third-rate drama, was very fond of telling his friends what he would accomplish when he had a speaking part. No matter how small it was, he would show them what real acting meant.

Eventually his opportunity came. He was to appear in one of the scenes and say two words—"It is."

For three weeks, nightly, before his mirror he rehearsed; trying all sorts of gestures, expressions and tones, until he felt perfect.

The eventful night arrived when the curtain was to rise on the new play for the first time, and the actor impatiently awaited his cue. It came. "And so this is the end?"

With his best tragedian air he stalked to the center of the stage and in a voice of thunder cried: "Is it?"

MODERN PEDAL COVERINGS, ACCORDING TO PHYSICIAN, AMONG THE GREATEST OF PHYSICAL PAINS.

The cook simply had to have something new to confess, and she contrived it.

In a long range of what Herbert Spencer called physical sins, foot sins loom as the stupidest and least excusable of which man is guilty. If men and women were born with the wretched appliances they call shoes they would have a right to raise their voices in lamentation over the cruelty of Nature in afflicting them with such a burden. Is it not a strange paradox that we should glory in our scientific ingenuity that has enabled us to construct the flying machine while we have lost the art of walking correctly and making our feet and legs really dependable as instruments of locomotion? asks Eugene Lyman Fisk, M. D., in the Health Builder. If we were simply aspiring to fly and ultimately abandon the use of our lower limbs, that would be a consistent program. But why insist upon encasing our feet in deforming appliances? Why not use reasonable intelligence in walking when in the rare intervals of flying or whizzing around on wheels in various types of conveyances we actually condescend to come into contact with the earth?

SMILE ALWAYS WORTH WHILE

London Writer Undoubtedly Is Correct When He Declares There Is Magic in It.

The anonymous writer who supplies "A Woman's Causerie" to the Saturday Review in London, pays this tribute to the woman who smiles:

"Wherever she goes she is met by welcoming faces and gracious acts; even a head waiter will leave the pompous politeness to find her a pleasant table, and will daily in suggesting food that may tempt her."

"In shops she waves aside the tired girl. Don't worry about me; I have plenty of time; with a look that makes the girl scrabbly to serve her other customers to be quickly ready to attend to her."

"For her there is always a seat in an omnibus or a train and porters never grumble at the weight of her boxes, for being as she is, she takes care that they are not of a back-breaking size."

"Her path in life, in spite of sorrows and difficulties, is, on the whole, an easy one, because she radiates happiness wherever she goes and the reflection of it is in everything around her."

CONCERNING MOONLIGHT.

It is probable that few persons are aware of the fact that the full moon gives several times more than twice the light of the half moon. They may be still more surprised to learn that the ratio is approximately as nine to one!

Stebbins and Brown, taking advantage of the extreme sensitiveness to light of a selenium cell, measured the amount of light coming from the moon at different phases, with the result above mentioned. The reason for the remarkable difference shown is to be found in the varying angles of reflection presented by the roughened surfaces of our satellite to the sun. The moon is brighter between first quarter and full than between full and last quarter. The cause of this is evident in the more highly reflective character of that part of the moon that lies west of its meridian.

EARLY CANADIAN INSURRECTION.

In the latter part of 1837 there was an insurrection in Canada. A portion of the people, dissatisfied with the British government, broke out in revolt, and attempted to establish their independence.

The insurgents found much sympathy and encouragement in the United States. Seven hundred men from New York seized and fortified Navy Island, in the Niagara river. The loyalists of Canada attempted to capture the place, but failed. They succeeded, however, in firing the Caroline, the supply ship of the adventurers, cut her moorings and sent the burning vessel over Niagara falls.

President Van Buren issued a proclamation of neutrality, forbidding interference with the affairs of Canada. The New York insurgents on Navy Island were obliged to surrender, and order was restored.

THE MODERN CHILD.

Reading about the two little English girls who, according to Conan Doyle, discovered real fairies in the woods we were reminded of another child because he was so different. Robert, the four-year-old son of a scientific man, had lived in the country most of his short life. One day a visitor, wishing to make friends with the little fellow, took him on his knee and asked, "Are there any fairies in your woods here, Robert?" "No," responded the child promptly, "but there are plenty of edible fungi!"

BRIGHT IDEA.

The performance at a crowded picture theater had just concluded.

Round the exits there was the usual crush to get outside.

"This crush is a nuisance," complained a disheartened one, sinking into a seat beside a man who had remained his place to wait until the press was over.

"It is," assented the comfortable one. "If only everybody would do like me—sit still until all the others had got out—there wouldn't be a crush at all."

MAD WEARIED OF OLD SINS

Cook Simply Had to Have Something New to Confess, and She Contrived It.

The cook had committed a capital offense. No matter what. Let us assume that she put soap in the mashed potatoes, and let it go at that. It was a sad duty to dismiss an otherwise fine cook in these days when there is death of cooks, but soap in the mashed potatoes was going too far. So the mistress of the house summoned her.

"How came you to do such a thing, Maggie?"

No answer.

"You know better. There must have been a reason for your putting soap in the mashed potatoes. Possibly you were angry?"

"No, mom, I wasn't mad. I just did it."

"I would like to know what your idea was, Maggie?" persisted the employer. "I am curious to know why you did it."

"Well, mom, I don't mind tellin' ye. I just made up my mind I'd get a new sin to confess. I've dug old sins, and dug 'em up, and dug 'em up, till I'm sick and tired of 'em. I was bound I'd get a new one. That's exactly why I did it."

Maggie stayed on.—New York Evening Post.

GREATEST OF ALL QUESTIONS

Now, as Ever, World Must Give Consideration to the Problem of the Child.

Every child looks at us inquiringly. From the streets, From the many windows, From orphan and foundling homes,

From the factories, From the squalid homes, And from the homeless places.

From the windows of the schools He looks at us inquiringly, He, the future of the race, He looks at us and through us, And far away

Into the distant future, And sometimes in his eyes There is hope and cheer, And sometimes reproof, And sometimes despair.

We had best stop and look at Every child.

He is not alone for his mother, Not alone for his father, But belongs to every one of us; He is the deepest concern of us all. What shall be done for Every child?

—Frederick Peterson in the North American Review.

USE OF RAYS BY FLOWERS.

Do flowers use rays not visible to the human eye to attract insects to them? Certain insects can spot ultraviolet light that cannot be seen by man, and some blossoms, in addition to their ordinary brilliant hues, vary in the kind of short light rays that they emit.

Prof. F. K. Richtmyer of Cornell University told the Optical Society of America, meeting at the Bureau of Standards in Washington recently, that these invisible rays may guide pollen-bearing insects to the flowers in their search for honey. Giving signals in rays shorter than the deepest violet that we can see brings the flowers the pollen that is necessary to it in producing seed. Experiments made by Professor Richtmyer on Colorado flowers show that flowers apparently differ in their reflection of ultraviolet rays as much as in their visible colors.

UNHOOKING THE HOOKWORM.

Pathologists in the United States army service in Manila say that almost nine out of ten persons in the Philippines have hookworm infection. The cases are not serious, but they lower the efficiency of the Filipino worker and likewise reduce the powers of resistance against malaria, tuberculosis and other ailments. The army scientists are using carbon tetrachloride as a specific against the parasite. This is powerful stuff, but it is chemically pure, seems to be effective, and it is highly reflective character of that part of the moon that lies west of its meridian.

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MONGREL DOG'S DEVOTION.

The devotion of dogs was illustrated at a London hospital the other day. A little mongrel, coming from out a side street, placed its paws on the hospital railings, and by whimpering and barking, attracted a large crowd. All efforts to make it go away were without success. After several minutes a young nurse appeared and gazed at the distressed creature. Then a smile spread over her features, and gently picking up the dog, she took it into the hospital. It then turned out that the dog's master had been admitted into the hospital and his devoted pet had followed him.

DISOURAGING TRAP STEALING.

A Basque sheep herder convicted of trap stealing in Lassen county, California, recently was fined \$100 and sentenced to jail for six months. The case was brought to trial and settled within four weeks. The field operations in predatory animal work conducted by the biological survey of the United States Department of Agriculture have been seriously interfered with by the stealing of traps, and it is believed that as a result of convictions and heavy sentences the nuisance will be lessened.

—The Modern Child.

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HARD LINES FOR PRESS AGENT IN THE DAYS OF GREELEY

Cook Simply Had to Have Something New to Confess, and She Contrived It.

Editors of Old School Looked Upon Advance Notices as "Undignified"—Against Free Ads.

F. A. Collins in the New York Times.

Inconceivable as it may seem there was a period of fifty years or more ago when New York was ignorant of the subtle and pervasive art of publicity.

Even the theatres of the day which made any effort to obtain "reading notices" or "write-ups" as they were called, encountered a stone wall of opposition. The amazing development of modern publicity was undreamed of.

An interesting glimpse into the newspaper as well as theatrical offices of this period may be gained from the personal experience of Gustav Frohman, who was active in both professions in those early days. Mr. Frohman when a boy of 15 was employed behind the counter in the advertising department of a New York newspaper.

When the representatives of new amusement enterprises appeared he applied for the position of handling their advertising and thus became an embryo press agent, one of the first in New York.

"The leading journalists of that day," Mr. Frohman explains, "whatever their personal differences and rivalries might have been, presented an unbroken front to the press agents to call them such. Among the distinguished editors of the day who shared this prejudice were Horace Greeley, William Cullen Bryant, Charles A. Dana and Henry J. Raymond.

Editors Were Wary

"To the modern publicity man the methods of his forerunners will seem very primitive. No attempt was made to prepare a notice or article of any kind about the coming appearance of any attraction. The dream of the press agent of the time was to secure an advance notice, but the ambition was very rarely realized.

There was only one way to secure this favor and that was by applying in person to the editor-in-chief of the paper. No one else had authority to insert such a notice. As a rule the only comment of any kind on a theatrical or other entertainment was that prepared by the regular dramatic critic.

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