

## SCIENTIFIC & INDUSTRIAL

Argon has been found to be composed of five other gases, so that the atmosphere is now known to contain seventy-five elements.

The tempering of steel is a color process. The steel is first heated to a bright red shade, then for brittleness is plunged into water. When heated a second time it passes through gradual changes of color of gray, steel-blue and straw. On reaching just the right tint for the use intended the steel is again plunged into cold water.

The advantage of a photographic flashlight that can be timed is claimed for a new cartridge made at Offenbach, Germany, and consisting of a celluloid capsule, filled with combustible powder and provided with a fuse. The flash varies with the size of the cartridge. Analysis shows that the powder, which burns quietly and with little smoke, contains 12 per cent of aluminum, 35.5 of magnesium, 24 of red phosphorus, and 27 of strontium nitrate.

One result of the competition of the two-penny tube and other electric railways has been a new form of bus, which is the forerunner of an improved stage carriage to be generally adopted. It is much more roomy and higher, the seats are arranged in corridor fashion, with a gangway down the center, so that passengers are now able to make a journey without having their knees interlocked with those opposite, and can at the same time see where they are while traveling.

A new method of charging for telephone service is based on the time unit instead of the number of calls. The scheme provides for an automatic clock and register, which is operated by the removal of the telephone receiver from the hook. The replacing of the receiver is utilized to wind the clock, so that there is a continuous record. A dial provided for indicating the length of time the telephone has been in use. Obviously the subscriber who only uses his phone occasionally should not be charged the same as one whose phone is in constant use.

There is a widespread notion that nearly all forms of bacteria are quickly killed by heat, but the fact is that in most cases a long exposure is necessary. Experiments recently reported at the Aberdeen Congress on Public Health show that non-virulent tubercle bacilli, produced by culture in a laboratory, resisted a temperature of 140 degrees Fahrenheit for ten minutes. The bacteria in tubercular sputum were not killed until they had been exposed to 140 degrees for fifteen minutes, and then in only five cases out of six. Tuberculous milk, heated to 140 degrees, lost its power of infection only after the lapse of twenty minutes.

The heating of ironing machines by electricity in place of steam, gas and gasoline, as heretofore, is now being used in a laundry in Kansas City, Mo. Its advantages can be made apparent to all by the simple statement that the little machine has a capacity of 72,000 cuts and collars in twenty-four hours. The machine is driven by an electric motor attached near the base. The heating of the ironing roll is accomplished by stationary heating coils placed within them. Electric heating has the advantage of being more uniform than any other, it is very intense and can be regulated to a nicety by a finely subdivided switchboard. It is asserted that the character of the heat renders it more desirable for starched goods than steam or gas.

**He Had Had Too Many.**  
A good story is told of Jim Younger when he was in Duluth recently. It is well known that he is very much averse to notoriety, and always registers under a fictitious name in order to avoid it. He stepped up to the office of one of the Duluth hotels, and after putting down something like "Peter Jones, Pearl Lake," he asked to be assigned a room. After ascertaining about how much the guest wished to pay, the clerk said that the most desirable room left was a court room. "Court room, hey? Well, I guess I don't want it," and Younger strode out of the room.

"Now, I wonder what he meant by saying 'court room' in such a funny way?"—and the hotel clerk, unconscious of the identity of his guest and his entirely natural aversion for court rooms, straightway forgot the incident. Duluth News-Tribune.

**Germany's War Treasure.**  
The town of Spandau, a peaceful little country place near Berlin, with houses dirty with age and old-fashioned cobble stone street, is where Germany's war treasure is kept and where are stationed no inconsiderable number of troops. In the center of the outlying part of the town rises the celebrated Julius tower that in former years has withstood many an attack from without; its walls are six feet thick; the entrance is guarded by three ponderous iron doors, and provided with no less than six locks. This stronghold contains treasure amounting to no less than \$30,000,000 in good coin of the German empire, laid out in numerous chests, each containing 100,000 mark pieces wrapped in thick linen bags. An officer goes the round inside every day and from time to time every chest and every bag is minutely examined and weighed.

## PAI'S AWFUL IGNORANCE.

Most every day when I'm at school  
The teacher tells us things  
About the birds and animals  
And presidents and kings.  
And then, at night, when I ask pa  
If what she says is so,  
He reads his paper right along  
And says: "Oh, I dunno!"

One day she told us that the world  
Is round, just like a ball,  
And that there's nothing down below  
It stands "at" all.  
I ask pa if she told the truth.  
He reads his paper, though,  
And put his foot up on a chair,  
And said: "Oh, I dunno!"

And once the teacher said the sky  
Ain't heaven's floor, and tried  
To make us think no angels walk  
Along the other side.  
And so that night I sat my pa,  
And all he said was: "Oh,  
Don't bother me about such things,  
I'm busy—I dunno!"

One time a bigger boy he said  
The doctor didn't mean  
My little baby sister in  
A box—no such thing!  
The night I sat my pa it was so,  
That big boy said was so,  
And pa he answered: "Oh, keep still,  
Confound it, I dunno!"

I used to kind of think somehow  
That my pa knew a lot—  
But that night when we're eating  
I guess that he's forgot.  
Since I've got started into school  
Most every day or two,  
I hear about a hundred things  
Pa doesn't seem to know.



"Pa, what are prejudices?" "Other people's opinions, my son."—Puck.

"Are you sure he loves her?" "Sure! Why, man, alive, he lets her beat him at golf!"—Judge.

We greet the man who finds no fault,  
With praise, and all the rest of it.  
But the better whom we're exalting  
Still, somehow, gets the best of it.  
—Washington Star.

Muggins: "Your wife seems very industrious."  
Buggins: "Yes; she's always finding something for me to do."  
—Philadelphia Record.

Lord Foranbell: "I can trace my descent from John Milton. How's that for a descent?" Miss Milyuns: "It's a great descent, sure enough."  
—Tit-Bits.

Mrs. Whyte: "She learned to speak French in six weeks." Mr. Whyte: "I wonder how long it will take her folks over in France to learn to understand her."  
—Somerville Journal.

"Even egotism has its good points," says the Marquis Philosopher. "The people who are always talking about themselves never find time to talk about us."  
—Philadelphia Record.

There was a young lady named Alice,  
She lived down in Texas, near Dallas.  
She married an earl,  
Did this clever young gear,  
And now she is in a palace.  
—Baltimore American.

Insurance Agent—"Tardon me, madam, but what is your age?" Miss Antiquate—"I have been twenty-two summers." Insurance Agent—"Yes, of course, but how many times did you see them?"—Tit-Bits.

"I wonder why the baby cries so much," said the young mother. "That's easy," answered the bachelor uncle. "Why is it?" demanded the mother. "Because it is a baby," replied the uncle.  
—Chicago Post.

"Tess—I heard him say he felt rather encouraged because you left the gas turned low in the parlor when he called." Jess—"How foolish of him! One needs a dark room to develop a negative."  
—Philadelphia Press.

"And what are you making?" we asked of the intelligent artisan, as we admired the play of his brawny muscles. "Makin' cow-catchers for milk trains," he replied, without looking up from his work.  
—Baltimore American.

"What a sour individual! What he growling about, anyway?" "O! he complains that he hasn't got what he deserved in this world." "I should think he'd have cause to rejoice on that account."  
—Philadelphia Press.

Smith—"Say, we've got a new cork at our boarding house." Jones—"Any better than the old one?" Smith—"Well, I guess yes. Why, she can actually cook prunes as you can't tell them from dried peaches."  
—Chicago News.

Mamma—"Since Susie invited you in to share her birthday cake last Saturday, you may ask her in to-morrow, and I'll make you a cake." Elsie—"Oh, won't you make some candy instead?" Mamma—"Would you rather have candy?" Elsie—"Yes'm. Susie never can eat much candy."  
—Philadelphia Press.

**Golf Luck of a Greenhorn.**  
Down on the Wenham golf course a few weeks ago a new member was playing around the links for the first time. It was really his first serious effort to play golf. He made a pretty good strike-off from an elevated tee across a valley to the top of a hill about seventy-five yards beyond. Thinking to have a little practice across the valley he struck his ball back toward the green beside the clubhouse when he had previously struck off. The ball sailed gracefully over the hill, and to his inexpressible surprise the player heard it go "kerchunk" into the hole on the green. He had struck a ball seventy-five yards and landed it in the hole. Probably few players ever do such a thing, and this player says he does not expect ever to do it again, if he plays golf for a quarter of a century. It was "the luck of a greenhorn."  
—Boston Herald.

**Holding Out High Hopes.**  
If King Edward's coronation is anything like its prospectus it will at least add to the gaiety of nations.  
—Philadelphia Ledger.

## FARM TOPICS

### Age at Which to Sell Hogs.

A Western hog raiser finds that the proper time to sell hogs is when they are from seven to nine months old. At this age, if properly managed, they ought to weigh from 250 to 300 pounds, and at the prices live hogs are selling at now you can easily figure out what they will bring you in and what the profit should be. When hogs are sold at this age they are not on the farmer's hands very long, and this, besides turning the money over quickly, lessens any danger of losing any by disease.

### Milk Absorbs Odors.

You cannot feed moultly hay, bad silage, musty corn fodder that has been put into the mow when it was not in shape to go there, and get good milk. The use of any such materials will get you into trouble, and will of itself prevent you from making high grade milk. No feed that has an odor should be permitted to remain about the stables. You may set a vessel filled with milk in a silo for an hour, then, if you take it out and heat it, you can tell by the nose it has been in the silo. At the Vermont station we could heat the milk up to 119 degrees and by the smell tell whether it had been near a hog pen or not.—H. B. Gurler, before the Illinois Dairymen's Convention.

### The Moisture Supply For the Potato.

There is no farm crop that is more easily, speedily and greatly affected by the supply of moisture than is the potato. It takes about 45 tons water to grow a ton of dry matter of potatoes. A crop of 200 bushels per acre would therefore require approximately 650 tons water; equivalent to a rainfall of nearly six inches. Because of its need for large water supply and its remarkable susceptibility to climatic conditions, it follows that the average potato yield is affected more by water supply than by lack of plant food. The selection of soil and methods of culture must be with these facts in view if success is to be had. The liberal application of fertilizers or the presence of large amounts of readily available plant food will prove of little value if the moisture supply is deficient. It is also true that too much water will check the growth as quickly and effectually as too little.

### Fowls Take Colds.

Sudden changes of weather or cold rains are apt to cause the fowls to catch colds—and this very often develops into roup. Watch for any such change, and should one be likely to occur, keep the chickens closely housed during the night.

The temperature of a poultry house should never be allowed to go below fifty, and there should be but little variation during the night. The doors and windows of the houses should be opened during a portion of the day, but when night comes everyone should be tightly closed.

In the morning the fowls should be fed in the scratching shed, and not allowed to go out until they have worked through the straw for fully two hours. If the weather be extremely severe the laying hens should be given a full feed of whole corn just before roosting time, and when possible to do so it should be warmed in the oven.

Don't neglect to keep the grit box filled, as the hens will suffer during the winter otherwise. — Home and Farm.

### Cheap Fodder Rack.

The basis for this fodder rack is two two by eight inch boards, each two feet long. These are rounded at the ends like sled runners. Five two by four, each five feet four inches long, are bolted to these boards as shown in the illustration, every four feet. There are several two by four, each four or five feet long, spiked to the boards in an upright position. These complete the frame. A tight floor is placed on the crosspiece and boards are nailed to the sides and ends up to a height of eighteen inches. A space of sixteen inches is then left without covering. The sides and ends can be boarded up the remainder of the distance. These upper boards can be placed together or apart can be left between them as seems best. Hay, straw or fodder thrown into this rack cannot be trampled and lost because of the tight bottom and sides up to a height of eighteen inches. There is no loss of food. Grain feed can be put into this rack if desirable. The rack can be transferred from one part of the field to the other simply by hitching a team of horses to it. This is very cheap and entirely satisfactory in our experience.—W. B. McLean, in American Agriculturist.

### A New Measuring Device.

Ribbons and fabrics can be easily measured by a new device consisting of a graduated strip of paper, which is rolled in the fabric before it leaves the factory, being unwound and torn off as the cloth is sold.

When a woman gives a man a piece of her mind he sighs for the peace that passeth his understanding.

### Old Joe, the Night Watchman.

(From the Fall Mail Gazette, London.)  
How often on returning home late on a dreary winter's night has our sympathy gone out to the poor old night watchman as he sat huddled up over his cage fire, overlooking the excavations which our City Council in their wisdom, or otherwise, allow the different water companies to make so frequently in our congested streets. In all weathers, and under all climatic conditions, the poor old night watchman is obliged to keep watch over the companies' property, and to see that the red lights are kept burning. What a life, to be sure; what privations and hardships; they have aches and pains, which nothing but St. Jacobs Oil can alleviate.

"Old Joe" is in the employ of the Lambeth Water Works, and is well and favorably known. He has been a night watchman for many years, in the course of which he has undergone many experiences. What with wet and cold, he contracted rheumatism and sciatica, which fairly doubled him up, and he began to look a serious matter for old Joe whether he would much longer be able to perform his duties, on which his good wife and himself depended for a livelihood, but as it happened a passer-by, who had for some nights noticed Old Joe's painful condition, presented him with a bottle of St. Jacobs Oil, and told him to use it. Old Joe followed the advice given; he crawled home the next morning and bade his wife rub his aching back with the St. Jacobs Oil "a gentleman gave him," and undoubtedly his wife did rub, for when Old Joe went on duty at night he met his friend and benefactor, to whom he remarked: "Them oils you gave me, Gov'nor, did give me a doing; they was like pins and needles for a time, but look at me now," and Old Joe began to run and jump about like a young colt. All pain, stiffness and soreness had gone; he had been telling everybody he met that St. Jacobs Oil had done for him. Old Joe says now he has but one ambition in life, and that is to always be able to keep a bottle of St. Jacobs Oil by him, for he says there is nothing like it in the world.

St. Jacobs Oil serves the rich and the poor, high and low, the same way. It has conquered pain for fifty years, and it will do the same to the end of time. It has no equal, consequently no competitor; it has many cheap imitations, but simple facts like the above tell an honest tale with which nothing on earth can compete.

Denmark leads the world in per capita income in agriculture. Each inhabitant has on an average a capital of \$285 invested in farming.

Brooklyn, N.Y., Jan. 20th.—For many years Garfield Tea, The Herb Cure, has been earning a reputation that is rare—it is universally praised! This remedy presents unusual attractions to those in search of health; it is made of herbs that cure in Nature's way, by removing the cause of disease; it is pure; it cleanses the system, purifies the blood and establishes a perfect action of the digestive organs; it is equally good for young and old.

It is estimated that of the whole population of the globe about 20,000 die every day.

Many School Children Are Sickly.  
Mother Gray's Sweet Powders for Children, used by Mother Gray, a nurse in Children's Home, New York, break up Colds in 24 hours, cure Feverishness, Headaches, Stomach Troubles, Teething Disorders, and Destroy Worms. At all druggists, 25c. Sample mailed free. Address: Mrs. J. C. Gray, 100 N. 7th St., Philadelphia, Pa.

The practice of punishing pupils by deducting credits for scholarship has been forbidden in the San Francisco schools.

FIT permanently cured. No fits or nervousness after first day's use of Dr. Kline's Great Nerve Restorer. 25c. per bottle and treated free. Dr. R. H. Kline, Ltd., 1511 Arch St., Philadelphia, Pa.

Sir Thomas Lipton says there are "no girls like American girls."

### WHEN RUSSIANS EAT.

No Fixed Meal Time—Many Peculiarities at Table.

The Russian has no fixed meal time. He eats when he is hungry, which is often. He has about six square meals a day. He has at least a dozen lunches, a little bit of salt fish or some caviare, or a piece of bread and cheese, washed down with a nip of fiery vodka. He never passes a station without a glass of tea—marvelous tea, with a thin slice of lemon floating in it. You get a fondness for Russian tea, and forswear hemlock decoctions forever. The table manners of the Russian—such as you see in hotels and buffets—are not pleasing. He sprawls with outstretched elbow on the table, and gets his mouth down to his food rather than raise the food to his mouth. He makes objectionable noises in his throat. He has a finger bowl, and rinses his mouth as the rest of us do when cleaning our teeth in our bathrooms. Then he squirts the water back into the bowl.

### Thackeray's House.

The house which Thackeray built for himself in Kensington has recently been sold by the son of the auctioneer who sold it for the first time 37 years ago. When the great novelist decided to build, many people thought he was putting too great a strain on his pen, but events have shown that the speculation was a sound one, for last week this house went for \$75,000. It is a red brick mansion, screened from the road, and the lease had 41 years to run.

### Mrs. Winslow's Soothing Syrup for children

soothing the gums, relieving inflammation, allaying pain, curing wind colic, whooping cough, etc.

No large comet has appeared within our environment since that of 1862.

Piso's Cure is the best medicine we ever used for all affections of throat and lungs.—Wm. O. Ramsey, Vancouver, Ind., Feb. 10, 1890.

The hide of the hippopotamus in some parts is fully two inches thick.

## Hair Splits

"I have used Ayer's Hair Vigor for thirty years. It is elegant for a hair dressing and for keeping the hair from splitting at the ends."  
—J. A. Gruensfelder, Granton, Ill.

Hair-splitting splits friendships. If the hair-splitting is done on your own head, it loses friends for you, for every hair of your head is a friend.

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Syrup of Figs is well known to be a combination of the laxative principles of plants, which act most beneficially, with pleasant aromatic liquids and the juice of figs, agreeable and refreshing to the taste and acceptable to the system, when its gentle cleansing is desired. The quality of Syrup of Figs is due not only to the excellence of the combination, but also to the original method of manufacture which ensures perfect purity and uniformity of product and it is therefore all important, in buying, in order to get its beneficial effects, to note the full name of the Company—California Fig Syrup Co.—printed on the front of every package.

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