

SCIENCE AND INDUSTRY.

The total production of anthracite coal in 1889 was 40,665,152 tons of 2,240 pounds, valued at \$65,718,165.

The State of Washington, it is claimed, has more coal than Pennsylvania, more pine than Maine, and more fish than Massachusetts.

According to the assertion of the eminent physiologist, Sippy, the stomach contains 5,000,000 glands by which gastric juice is secreted.

A tea-planter of Darjeeling says that fully one hundred million pounds of tea are now yearly exported from India, against thirty-three million pounds five years ago.

Cotton spinning in Japan is very depressed at the present time, and the spinning companies are curtailing production. Many machines which had been ordered from foreign firms in Yokohama are still awaiting delivery, the Japanese refusing to take them.

Beneath the finger nails is a handy place where a great variety of microscopic forms of life are wont to gather. Microscopists have found in the cleanings from finger nails, thirty-six kinds of micrococci, eighteen bacilli, three sarcinae and the spores of common mould.

A French chemist, M. Aime Girard, has shown that the potato called "Richter Imperator" is well fitted for the production of alcohol by distillation on a commercial scale. At one operation 78,000 kilogrammes of potatoes were treated, and ten liters of alcohol, absolutely pure, were obtained from every one hundred kilogrammes of the tuber.

Another distillation gave fourteen liters for the same quantity of roots. The "draff" which resulted was readily eaten by cattle.

In the building trades the six cities in which the highest wages are paid are New York, Brooklyn, Chicago, St. Louis, Galveston and San Francisco. St. Louis pays the highest wages for masonry, New York for carpentry, San Francisco for painting, Chicago for plumbing, Santa Fe for roofing and Galveston for common labor.

The products of the mines of the world were, in 1888, in tons: Iron, 23,512,000; copper, 341,000; lead, 517,000; zinc, 444,000; tin, 35,000. The production of gold was 168,325 kilogrammes; of silver, 3,720,351. There were, moreover, 466,406,000 tons of coal, brought to light, 5,712,000 tons of petroleum, 7,347,000 of salt and about 3,700,000 of other similar products.

The grand total in tons was 508,939,000, with a value of \$1,776,003,000. To this vast sum coals alone contribute almost \$700,000,000, or about 40 per cent, while the precious metals, gold and silver, contribute but \$260,000,000.

Bradford McGregor, the mechanical expert of Cincinnati, has succeeded after numerous experiments in uniting aluminum with glass, and he claims to be the first who has done so. A large piece of aluminum, with a glass tube in the center, was turned in his lathe, and it was impossible to detect the slight flaw or joint where they came together. In fact, it appears as one solid mass. Heretofore no metal could be made to unite with glass in which the contraction and expansion were the same; and it is claimed that this discovery will create a revolution in the way of reducing the cost of incandescent lights, as it will take the place of platinum, which costs \$330 a pound, while the new compound will not cost ten dollars.

Add carbon to pure iron and it becomes steel. Add a hydro-carbon to iron, and steel itself becomes so extensively modified that its properties are not recognizable. Thus steel may be as soft as pure iron. Add hydrogen, in varying quantity, and it has the quality of resilience, as in the watch spring, or the quality of tenacity as in the knife or razor, or may be given nearly the hardness of a diamond, as in a file. With steel at a low temperature, from 400 degrees to 450 degrees Fahrenheit, edge-tools are produced, the color in the yellow shades; from 500 degrees to 525 degrees various sorts of springs are produced, color blue; while by heating iron to whiteness and plunging it into water, which is mainly composed of hydrogen, files are produced, or forms even harder.—Indianapolis News.

A Sweet Reminder.

A touching incident occurred at Blackwell's Island when the bell of the new chapel was hung. It was rung for the first time to test its sound, which is peculiarly resonant and sweet. After a few minutes' trial, the archdeacon, who had ordered the bell to be rung, sent word to stop the ringing, fearing that it might annoy the inmates of the almshouse. At this moment, a lady who had been visiting in the dormitories came out to ask as a favor that the ringing might be continued. She said that many of the poor old inmates had burst into tears when they first heard the sound of the bell; and they declared that it recalled to them the blessed Sunday bells of childhood in the home far away. The sweetness of that tolling bell seemed to send a benison through those dreary wards, and to bring back memories full of Christian comfort and aspiration to the inmates.—Young Churchman.

Returning the Favor.

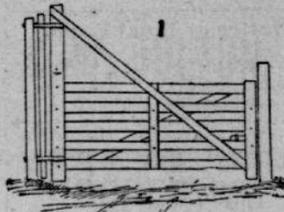
A story told of Mr. Whittier by a Boston lady illustrates his gentleness and courtesy: A few years ago he called upon this lady one evening when the streets were very slippery. When he rose to take his leave, she feared that he might slip and fall upon the steep sidewalk. Accordingly she made a pretence of needing fresh air and of desiring to post a letter, and went with him to Beacon street, where she slipped her letter into the mail-box and bade him good-night. But as she started toward home, he turned aside, saying, "Wait! I will see thee home, Elizabeth." And he did not leave her until she was at her own door.—Youth's Companion

FARM AND GARDEN.

IMPROVED FARM GATE.

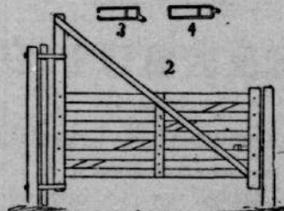
Due for Which Its Originator Claims Wonderful Things.

Here is a sketch of a farm gate which I have used several years and have never seen in use anywhere beyond my farm, although I have been in many places where snow is a trouble. Its chief virtue lies in the fact that it can be raised to any height, and will maintain this altitude and swing as well as when close to the ground. There is no special plan for the gate. It only differs from other gates in being hung in a distinct fashion. A back piece is



made of scantling three inches square. This is as high as the high post of the gate. The top hinge must be put as high as the gate will allow, as shown. The bottom hinge must be placed as high as it will be necessary to raise the gate.

The hinge is let into the back side of the back piece and one bolt passes through the hinge flush with the front side of this same piece. As will be seen in cut No. 3, the parts of the iron which



are held together by a bolt in front of the back piece (just mentioned) hook over, leaving a space, between which the slats of the gate can pass as the gate is lifted up or let down. The high gate post and back piece next to the post set in the ground are so near together as to almost rub. To keep the gate in place on raising it up, a small iron pin is put through the gate over the lower hinge. This prevents the gate from slipping down. A bolt should be put through the corner of the gate to prevent its being lifted entirely out of the hinges in a hurry sometimes.—John P. Tripp, in Farm and Home.

RATIONS FOR COWS.

Make a Distinction Between Feeding for Butter and for Beef.

We must make a distinction between feeding for butter and for beef. We must find out the inclination of the cows—what they will do with the food. The first thing a cow should do is to pay for her board and her care. If they will not do this we do not want them. They must, however, go further than this, and give up profit. There should not be much hustling about the cow stable. If the cowman is in a hurry to go to the village, let him start the "chores" a little sooner rather than bang the cows about. Milking should be done with our might, mind and strength. Talk has no place in the stable.

Good clover comes next in the order of inexpensive rations, in the pasture, the aftermath or in the stable. It should be cured when there is the most honey in it. Clover does not impoverish the soil. The more we grow of it the more our soil will grow of other crops. The short crop of hay with us, three years ago, when we had to feed grain to our cows to get them through, proved to the farmers of this section that feeding grain to cows is an advantage, as our cows never did better.

Next to the clover comes corn. The sowed fodder corn is poor enough, not better than sticks soaked in water. Hundreds of acres of such trash are grown and called food. Corn should be put in drills and the kernels one foot apart—to get the most yield of real food. Green rye is good in the early spring, also oats and green corn in their turn. The old pastures must be plowed up and reseeded; many of them are run out, and it takes too much territory to pasture our cows. We can run a cheap fence around a part of them and put on some other crop to renew them, and then reseed them.—Nathan Clark, in Farmer Stock Breeder.

THE POULTRY YARD.

SCATTER lime on the floor of the poultry house occasionally now.

HATCH pullets in March and they will commence laying in October.

For big roasting fowls cross the Langshans with the Plymouth Rocks. One of the chief advantages with the incubator is that earlier hatching can be secured.

ALMOST any of the standard breeds are better layers than the common dunghill fowls.

THE fowls that can best be depended upon for winter laying are the early-hatched pullets.

ONE of the poorest places to fix the poultry house is along the side of the barn or sheds for any of the other stock.

THE worst objection to grease on the farm is their liability to trespass upon the neighbors, often to their disadvantage.

WHEN convenient to town it is often the case that meat scraps can be had from the butcher shops and used to an advantage.

SOME breeders claim that by feeding the hens liberally on corn at this season it will aid materially to make them broody.

FOWLS are as apt to catch cold on windy days if exposed as they are when it is rainy. Plan to protect from both as much as possible.

THE MARCH WIDE AWAKE

Has something for every taste, and all is of the best and brightest; the magazine is made for the young people, but the contributions are of such a sort that every member of the family will enjoy each page. The number opens with "An Old-fashioned Witch Story," from the Danish, by Laura E. Poulsson. "Under Ground" is a true and thrilling California adventure, by C. R. Parker. "Tippecoe," by Maud-Rittenhouse, is a brief, pathetic Southern story. The serials this year are unique: "Five Little Peppers Grown Up," by Margaret Sidney, attracting thousands of readers; "Cab and Caboose," the railroad story by Kirk Monroe; and the autobiographical Italian story, "Marietta's Good Times," by M. Ambrosi. "Drawing the Child Figure" is a novel series of practical art instruction by the daughter of the Art-Anatomist, Dr. Rimmer.

The articles of the number cover a wide range of topics: "Our Government—who made it and why," with a fine portrait of Hamilton, by Hon. John D. Long; "A Visit to Winchester College at Commencement Time," by Oscar Fay Adams, with the words and music of the famous old Winchester commencement song, "Dulce Domum"; "How Grandmother's Spoons Were Made," by Mrs. Ormsbee; entertaining articles by Prof. Otis T. Mason, Mrs. William Claffin, Amanda Harris and others; "Prize Problems in Horology," by E. H. Hawley, of the Smithsonian Institution; and several pages of bright anecdotes.

WIDE AWAKE is \$2.40 a year; 20 cents a number. D. Lothrop Company, Publishers, Boston.

BANQUETS are dangerous places. Can a man be sober when his health is drunk?—Binghamton Republican.

A Veil of Mist Rising at morning or evening from some lowland, often carries in its folds the seeds of malaria. Where malarial fever prevails no one is safe, unless protected by some efficient medicinal safeguard. Hostetter's Stomach Bitters is both a protection and a remedy. No person who inhabits, or sojourns in a miasmatic region of country, should omit to procure this fortifying agent, which is also the finest known remedy for dyspepsia, constipation, kidney trouble and rheumatism.

SPEAKING of fasting, sailors have been known to live on salt water for months at a time.—Washington Star.

HARSH purgative remedies are fast giving way to the gentle action and mild effects of Carter's Little Liver Pills. If you try them, they will certainly please you.

MANY an Italian has a personal organ soon after reaching this country.—Texas Siftings.

IF a courtship-match is not declared off it must end in a lie.—N. Y. Picayune.

INFIRM—the cat's tail.

"ONE of the finest"—a needle.

CHILDREN'S letters—the alphabet.

A RED-hot policy—the insurance.

A STAND still—the hat rack.

WELL and good—an artesian.

A CARD receiver—the waiter man.

SOME old letters—the alphabet.

USUALLY "lay" low—hens.

A HOT house—the crematory.

WHAT all should keep—their temper.

IMAGINARY garments—coats of paint—Mall and Express.

"A STITCH in the side" makes one feel sew badly.—N. Y. Herald.

THE musician is the only man who can with any safety try the experiment of living on "air."—Washington Post.

TO a GIRL in love with him, a handsome young carpenter at work assumes the most fascinating news.—Texas Siftings.

FOR all we know the jackass may feel thankful that he has ears big enough to take in all his own beautiful music.—Indianapolis Journal.

A YOUNG man who married a "butterfly of fashion" was unable, a year later, to provide "grub" for his butterfly.—Norristown Herald.

IT was one of the Springvale high-school pupils who, being asked to compare just, replied promptly: "Just, justice, justification!"—Lewiston Journal.

"DID I understand you to say that miracles do not happen in these days?" "You did." "Then you were wrong. My plumber has just failed."—St. Joseph News.

PEDESTRIAN (excitedly)—"By heavens! if that wasn't a close shave!" "Bystander—" "Where?" "Pedestrian—" "At the barber shop."—Binghamton Republican.

SYRUP OF FIGS



ONE ENJOYS

Both the method and results when Syrup of Figs is taken; it is pleasant and refreshing to the taste, and acts gently yet promptly on the Kidneys, Liver and Bowels, cleanses the system effectually, dispels colds, headaches and fevers and cures habitual constipation. Syrup of Figs is the only remedy of its kind ever produced, pleasing to the taste and acceptable to the stomach, prompt in its action and truly beneficial in its effects, prepared only from the most healthy and agreeable substances, its many excellent qualities commend it to all and have made it the most popular remedy known.

Syrup of Figs is for sale in 50c and \$1 bottles by all leading druggists. Any reliable druggist who may not have it on hand will procure it promptly for any one who wishes to try it. Do not accept any substitute.

CALIFORNIA FIG SYRUP CO. SAN FRANCISCO, CAL. LOUISVILLE, KY. NEW YORK, N.Y.

How's This!

We offer One Hundred Dollars Reward for any case of Catarrh that can not be cured by taking Hall's Catarrh Cure. F. J. CHENEY & Co., Props., Toledo, O. We, the undersigned, have known F. J. Cheney for the last fifteen years, and believe him perfectly honorable in all business transactions, and financially able to carry out any obligations made by their firm. West & Truax, Wholesale Druggists, Toledo, Waking, Kinman & Marvin, Wholesale Druggists, Toledo, Ohio.

Hall's Catarrh Cure is taken internally, acting directly on the blood and mucous surfaces of the system. Testimonials free. Price, 75c. per bottle. Sold by all Druggists.

An Inquirer wishes to know what will cure a felon. The penitentiary or death.—St. Joseph News.

ALL who wish to aid Nature in her efforts to maintain good health should use Dr. John Bull's Sarsaparilla. It is as pleasant as wine, and far more strengthening. It is beneficial to every part and every function of the body. It is truly the old man's need and the young man's friend. In cases of debility and weakness it acts like a charm.

A POLICEMAN should never cuff a person on the ear. Handcuffs are the only variety he should use.—Pittsburgh Chronicle.

Those who use Dobbin's Electric Soap each week, (and their name is legion) save their clothes and strength, and let the soap do the work. Did you ever try it? If not, do so next Monday morn. Ask your grocer for it.

NATURALLY enough a man doesn't stand on a bed of soft down when he gets hard up.—Washington Mirror.

You can't help liking them, they are so very small and their action is so perfect. One pill does. Carter's Little Liver Pills. Try them.

A GIRL should remain under her mother's wing—especially if she's a little chic.—Richmond Recorder.

DON'T Neglect a Cough. Take some Hale's Honey of Horehound and Tar instantly. Pike's Toothache Drops Cure in one minute.

"CAT-NIPPED!" squeaked the mouse as Tabby got a grip on him.—Washington Post.

No SAFE REMEDY can be had for Coughs and Colds, or any trouble of the Throat, than "Bovril's Bronchial Troches." Price 25 cts. Sold only in boxes.

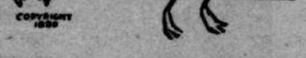
A LITTLE poker now and then sometimes does up the best of men.—Oil City Blitzard.

MANY little children owe their good health to Dr. John Bull's Worm Destroyer. "Nice Mamas to give them such nice candies."

The worse a man's temper is, the more becoming and profitable it will be for him to keep it.—Binghamton Leader.

The best cough medicine is Piso's Cure for Consumption. Sold everywhere. 25c.

The girl with the reddest cheeks will, when she sees a mouse, change to a yellow.—Boston Traveller.



Taken away—sick headache, bilious headache, dizziness, constipation, indigestion, bilious attacks, and all derangements of the liver, stomach and bowels. It's a large contract, but the smallest things in the world do the business.—Dr. Pierce's Pleasant Pellets. They're the smallest, but the most effective. They go to work in the right way. They cleanse and renovate the system thoroughly—but they do it mildly and gently. You feel the good they do—but you don't feel them doing it. As a Liver Pill, they're unequalled. Sugar-coated, easy to take, and put up in vials, and hermetically sealed, and thus always fresh and reliable. A perfect vest-pocket remedy, in small vials, and only one necessary for a laxative or three for a cathartic.

They're the cheapest pill you can buy, because they're guaranteed to give satisfaction, or your money is returned.

You only pay for the good you get.

That's the peculiar plan all Dr. Pierce's medicines are sold on, through druggists.

Whenever you visit the shops in town, Looking for Braid to bind your gown, Secure the Clasp, wherever found, That holds the Roll on which is wound Th' Braid that is known the world around.

BOILING WATER OR MILK.

EPPS'S COCOA

GRATEFUL-COMFORTING. LABELLED 1-2 LB. TINS ONLY.

MAKING MONEY!

Our Well Machines are the most reliable, durable, trustworthy. They do BIRD WORK and make GREATER PROFIT. They will work with water, or with any liquid. Any size, 1 1/2 inches to 12 inches diameter.

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USE St. Jacobs Oil THE GREAT REMEDY FOR PAIN



How many people there are who regard the coming of winter as a constant state of siege. It seems as if the elements sat down outside the walls of health and now and again, led by the north wind and his attendant blasts, broke over the ramparts, spreading colds, pneumonia and death. Who knows when the next storm may come and what its effects upon your constitution may be? The fortifications of health must be made strong. SCOTT'S EMULSION of pure Norwegian Cod Liver Oil and Hypophosphites of Lime and Soda will aid you to hold out against Coughs, Colds, Consumption, Scrofula, General Debility, and all Anemic and Wasting Diseases, until the siege is raised. It prevents wasting in children. Palatable as Milk.

SPECIAL.—Scott's Emulsion is non-secret, and is prescribed by the Medical Profession all over the world, because its ingredients are scientifically combined in such a manner as to greatly increase their remedial value. CAUTION.—Scott's Emulsion is put up in salmon-colored wrappers. Be sure and get the genuine. Prepared only by Scott & Downe, Manufacturing Chemists, New York. Sold by all Druggists.

EVERY WATERPROOF COLLAR OR CUFF

THAT CAN BE RELIED ON Not to Split! Not to Discolor! BEARS THIS MARK.



NEEDS NO LAUNDERING. CAN BE WIPED CLEAN IN A MOMENT. THE ONLY LINEN-LINED WATERPROOF COLLAR IN THE MARKET.

ELLY'S CREAM BALM CATARRH

ELLY'S CREAM BALM—Cleanses the Nasal Passages, Alleviates Pain and Inflammation, Heals the Sores, Restores Taste and Smell, and Cures Catarrh of the Throat.

FACTS TO DATE. Koch's Discovery and Piso's Cure for Consumption.

- 1. Under Koch's treatment many have improved. 2. It can only be used in the early stages of Consumption. 3. It is dangerous, and sometimes fatal. 4. Only a few can obtain the lymph. 5. Physicians only can use it even with great care. 6. It is said that by its use disease is sometimes transferred to sound organs.

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Whenever you visit the shops in town, Looking for Braid to bind your gown, Secure the Clasp, wherever found, That holds the Roll on which is wound Th' Braid that is known the world around.

SMOKE YOUR MEAT WITH CANNERS LIQUID EXTRACT OF SMOKE

ASTHMA POSITIVELY CURED

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CATARRH CURE YOURSELF.

Life of SHERMAN; Indian War.

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