

SCIENTIFIC.

To what depth does light penetrate in water? Experiments have lately been made with the object of determining this point. In the Mediterranean Sea, near Nice, the method of experimenting was to submerge photographic plates of gelatine-bromide of silver at various depths and develop the luminous images produced on them by rays penetrating from the surface. A coating of bituminous varnish, easily removable by alcohol, or spirits of turpentine, served to guard the sensitive layer from the chemical action of the sea-water. The rays affected the sensitive surface through a back-plate of glass, while oxalate of iron was employed as the developer. By these means images were obtained to depths of about 450 yards, showing that light penetrates through water to this distance.

This is the heavy season for piano tuners. The heating up of a house untunes in a short time its piano. This is not due, however, to the expanding or contracting of the strings under the variations of temperature, but to the variations produced in the sounding board under the influence of the increased dryness of the air when furnaces and stoves are burning. The sounding board is always made of spruce, because of the superior resonance of that timber, but spruce is the wood most affected by changes in moisture.

It is easy to prevent rust within showcases. It is well-known that the rusting of bright steel goods is due to the precipitation of atmospheric moisture upon the metal. This may be obviated by keeping the air surrounding the goods in a dry condition and a saucer of powdered quicklime placed in an ordinary showcase will usually suffice to prevent the rusting of the cutlery exhibited therein, as the lime will take up the moisture.

In the Botanical Garden at Berlin flowers, fruits and other parts of plants are preserved by keeping them for a time in a saturated solution of alcohol and salicylic acid (reduced by four times its bulk of water) and then removing and drying them. It is said that vegetable matter treated in this way preserves its natural appearance and never turns black. The plan is considered particularly valuable for orchids and other succulent plants.

The most satisfactory results have followed the experiment tried a few months ago at the government armory factory at Springfield, in the use of the vapor of gasoline as a force fuel. It is found that the expense is not more than half the former cost of coal, and that there are many minor advantages. This success has greatly interested New England metal workers, who are beginning to adopt it in various factories.

Peat smoke is heavily charged with antiseptics—with tar, creosote, tannin and various volatile oils and resins—and the salutary influence of these more than makes up for the adulteration of the air.

A German paper says that forty parts of paper pulp, ten parts of water, one part of gelatin and one part of bichromate of potash, with ten parts of phosphorescent powder, will make a paper which will shine in the dark, and which will be suitable for labels, signs, etc.

When a man escorts his wife and children to the depot, bids them good-bye for a month in the country, he should provide them with a bottle of Allen's Lung Balm, the best remedy in the world for coughs and colds. Price, 25c, 50c and \$1 per bottle, at Drugists.

He that is surety for a stranger shall smart for it; and he that hateth suretyship is sure.

Certain Minerals, once forming a part of almost every medicine, are now regarded dangerous and unnecessary. The evils they produce are worse than the diseases they were supposed to cure. Dr. Walker's California Vinegar Bitters contains nothing but the juices of plants—and cures all disorders of the liver, skin, kidneys, digestive organs, and blood.

"Do not trust or contend, nor borrow lend, and you'll gain in the end."

A soft silky texture is a most desirable feature to any head of hair and Carboline, the only natural hair producer made from petroleum refined, will impart this characteristic loveliness to the most unruly locks. Try it.

Do not love life, then do not squander Time, for that's the stuff life is made of.

One word: One step may make or mar one's whole future. Dr. Jones' Red Clover Tonic is the proper move when you have dyspepsia, bad breath, piles, pimples, ague, malaria, low spirits, headache, or any stomach or liver troubles. 50 cents.

Much evil comes of hurry, and hurry is the child of impunctuality.

Use the Fraxer Axle Grease. It's the best in the world—will wear twice as long as any other. Ask your dealer for it, and take no other.

Want of care does us more damage than want of knowledge.

Get Lyon's Patent Heel Stiffeners applied to your new boots and shoes before you wear them out.

Wherever you are useful, there will you be welcome.

FITS: All fits stopped. Treatise and pills sent to Dr. Kline's Great Nerve Restorer free to fit cases. Send to Dr. Kline, 361 Arch St., Phila., Pa.

Virtue maketh men on earth famous, in their graves glorious and in heaven immortal.

When the follicles are not destroyed, Hall's Hair Renewer restores hair to bald heads. For all ailments originating in disorders of the stomach and liver, take Ayer's Pills.

Copper dissolved with 5 per cent of cobalt is described by M. G. Guillemin as especially interesting, being capable of resisting oxidation, being as malleable as ordinary copper, and being as tenacious and ductile as iron.

A full sister to the race horse Foxhall has been purchased recently by an Australian horseman and shipped to that country for breeding purposes.

Dr. Robert Newton, late President of the Electric College, of the city of New York, and formerly of Cincinnati, Ohio, used Dr. Wm. Hall's Balsam very extensively in his practice, as many of his patients, now living, and restored to health by the use of this invaluable medicine, can amply testify.

Measure not men by Sundays, without regarding what they do all the week after.

A 50 cent bottle of Dr. Higelow's Positive Cure will promptly and thoroughly cure the worst case of recent cough, cold or throat or lung trouble. Buy the dollar bottle for chronic cases. Pleasant to take.

We are best waken when we dream that we dream.

WOMEN'S BROWN'S IRON BITTERS
Needling renewed strength, or who suffer from indigestion peculiar to their sex, should try
BROWN'S IRON BITTERS
TRADE MARK
THE BEST TONIC
This medicine combines iron with pure vegetable tonic, and is invaluable for Diseases peculiar to Women, and all who lead sedentary lives. It Enriches and Purifies the Blood, Stimulates the Appetite, Strengthens the Muscles and Nerves, and restores to the system the vitality and vigor which are lost in the use of purgatives.

AGENTS WANTED!
Men and Women who have from 10 to 25 hours spare time per day can easily earn from \$1 to \$100 per month. We have a large stock of goods for sale at wholesale and retail prices. We want agents in every city, town and village. Apply to us for a full description of our goods and terms. We will guarantee you a sale of our goods in any territory. Address: **W. H. LAMBERT, 112 N. BROADWAY, N. Y.**

BAUGH'S
TRADE MARK
\$25
PHOSPHATE
Contains the Life and Essence of Animal Bones. We are selling Baugh's Nitro-Phosphate Pure Bone Phosphate, the best fertilizer in the world, for all crops, at very low prices. It is made from the purest phosphate rocks and is guaranteed to give the highest yields of crops. Send your orders to **BAUGH BROS. 100 So. Del. Ave., Philadelphia, Pa.**

CONSUMPTION
There is a positive remedy for the above disease. It is the only remedy which has been used for long standing cases with success. It is a true cough medicine. **W. H. LAMBERT, 112 N. BROADWAY, N. Y.**

RUPTURE can be cured. Dr. J. M. B. Jones' Ruptide is the only remedy which has been used for long standing cases with success. It is a true cough medicine. **W. H. LAMBERT, 112 N. BROADWAY, N. Y.**

LEPAGE'S GLUES
Used by the best manufacturers in the world for binding books, boxes, and other articles. It is made from the purest glue and is guaranteed to give the highest yields of crops. Send your orders to **LEPAGE & CO., 112 N. BROADWAY, N. Y.**

WORMS
In the human body eradicated by using **LEPAGE'S WORM SYRUP**. An old-fashioned remedy, safe and effective in all cases. Price 25 cents a bottle. **LEPAGE & CO., 112 N. BROADWAY, N. Y.**

WELL BORING AND ROCK DRILLING MACHINES. Tools for all kinds of well making. **LOOMIS & NYMAN, TIFFIN, OHIO.**

FREE LOVE
A book worth \$10.00. Sent free to all who send for it. **NEWARK, N. J.**

CHILDREN'S PASTILLES
Danie's Business College, Philadelphia. Terms only 50c. **KIDNEY'S PASTILLES.**

A FACT.
I, William C. Wilson, cannot make hair grow on a door mat, nor fresh grass on a wooden leg, but where the eye is not broken up nor disintegrated, such can always be restored, even though your oculists and doctors say you are incurable; therefore, if you suffer, say you right.

ACTINA, THE GREAT EYE RESTORER.
Prof. Wm. C. Wilson, Inventor.
ONE TREATMENT FREE.
Persons suffering from diseases of the eye, such as every form of cataract, Myopia, Presbyopia, Granulated Eye, Chronic Ophthalmia, etc., etc., absolutely cured. Short-sightedness, which the oculists have never been able to cure, cannot act after using ACTINA.
Address: **PROF. WILLIAM C. WILSON, 112 Chestnut Street, Phila.**

Important Caution to Persons Seeking Relief from My World-renowned Remedy.
Owing to my great success in the restoration of sight by the use of "ACTINA," several persons have attempted to place on the market a fraudulent imitation of my wonderful instrument, per one are therefore warned that every Battery, if genuine, must bear the imprint in the copper bands around the zinc body the words "ACTINA, W. C. WILSON, INVENTOR." Persons writing or calling on me every day complaining of such frauds, stating the eyes have been injured by these imitations, therefore, any persons offering for sale an eye restorer under the name of "ACTINA," and not holding my written autograph, as to sell, I will reward every person giving me information against such persons in any state, city or village.

Throw away your spectacles. Get rid of your cataract. It will cost you nothing. Price, \$10. If \$500 were paid for it it would be cheap. Will act a life-time. Fifty in one family may use it. Write to me at once.
PROF. Wm. C. WILSON, 112 Chestnut Street, Phila.

ELYS CREAM BALM CATARRH
Cleanses the Head. Relieves Pain at Once. Allays Inflammation. Heals Sores. Restores Taste and Smell. A Positive Cure.
A particle is applied into the ear, and the patient is relieved at once.
ELYS BROTHERS, Druggists, Oswego, N. Y.

SSS HAY-FEVER
Relieved at Last!

Pie's Remedy for Catarrh is the Best, Easiest to Use, and Cheapest.
Also good for Cold in the Head, Headache, Hay Fever, etc., 50 cents.
"Judging from its effects in my case, Pie's Remedy for Catarrh is, doubtless, the best medicine I have ever used."
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Also good for Cold in the Head, Headache, Hay Fever, etc., 50 cents.

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FARM NOTES.
HOLSTEIN CATTLE.—The writer has known something about Holsteins for at least a dozen years in a well-nigh distinctively dairy locality, in which farmers are supposed to know something about practical cows. The Holsteins were introduced under favorable auspices and were tried as a dairy breed under average management and found wanting. Any farmer who wished grades could get them without cost, and even thoroughbreds depreciated in estimation until they ran out, and almost every vestige of the original importations has vanished. The cattle were found to be great eaters, raw-boned and difficult to fatten. The cows were large milkers, but the milk was so thin and poor in quality that native stock beat them out of sight as butter makers, both in quantity and quality; even farmers who shipped milk to the city got ashamed of it and discarded the breed. That is the plain, unvarnished truth as it relates to the Holsteins in our vicinity. I have no grudge against these cattle and will be glad if the new association will give us a better practical dairy animal in this class than we have known heretofore, or than we know now.

The average yield of butter per week is four pounds, and it requires about forty pounds of milk to make a pound of butter. Other breeds and their grades do nearly twice as well as this, both in creamery and private dairy experience, to our certain knowledge. We wish the Holstein-Friesians no harm; on the contrary, we hope they will come up to the adopted standard, but it will take several years' breeding for them to catch up to our common stock.

DRAFT HORSES.—The unanimous opinion of all the principal dealers in horses in Chicago, who handle some 10,000 horses annually, is that the grade Percherons are superior to all other draft breeds for city use; that they sell for higher prices than the English draft, Clydesdale, or any other draft horse, and they advise the farmers of the West to breed to Percheron stallions if they wish to raise the most desirable horses for the Chicago market. M. W. Dunham, of "Oaklawn Farm," Wayne, Ills. has imported from France nearly 2,000 Percheron horses, and now has on hand about 500 head nearly all recorded with their pedigrees in full in the Percheron stud-book of France. All careful purchasers demand certificates of such registration as the only reliable evidence of purity of blood, many horses of unknown blood being imported and sold as pure bred.

SALT IN THE DAIRY.—This working butter with dissolved salt in it is very pernicious as well as a common practice. It is almost as bad as so much sand, scouring the life out of the butter and destroying that clean, granular appearance which is known under the term of the "grain." In place of this the butter becomes waxy, greasy and saucy, with a shiny surface, quickly recognized by the experienced eye. Coarse-grained salt is almost as bad as hard-grained, for the reason that it is likely to remain undissolved, and can not, therefore, be readily worked into the butter without overworking. Indeed, working butter at all is overworking it, and this injurious and unnecessary labor can and should be avoided by the use of fine, even grained and freely dissolved salt.

There is no part of the whole economy of the farms that affords a greater field for investigation, that requires a greater variety of information and more thorough preparation, than that health-promoting department, the growth of fruits. Crops of other kinds, as grain, cotton, etc., bring the bulk of the farmer's income, but fruits are indispensable if a good, healthy enjoyment of life is any consideration. Grains and vegetables all as a rule need cooking before they can be used, but fruits come from the tree when ripe just as God made them, ready for man's immediate use.

The advantages of the soiling system are that the chicks are safe from the depredations of hawks and vermin and from destruction by storms; they are under control and do not destroy the crops for several hundred yards around their coops, nor do they annoy the neighbors, nor do they are a constant source of anxiety to their keeper, for he always knows where to find them. The evident disadvantages are, that chicks require feeding more frequently and carefully, and do not get enough exercise to make hardy breeding stock if confined until breeding age.

The benefit which fowls derive from eating charcoal is acknowledged. The method of putting it before them, however, is not well understood. Pounded charcoal is not in the shape in which fowls usually find their food, and consequently is not very enticing to them. Corn burnt on the cob and the refuse, which consists almost entirely of the grains reduced to charcoal, if placed before them, they eat greedily and with a marked improvement in their health, as shown by the bright color of their combs and their sooner production of a greater average of eggs to the flock than before.

Muddy barnyards will cause the milk to fall off. When cows are compelled to stand knee-deep in mud, with their bodies plastered over with it, dirt will find its way into the pail, while additional food will be necessary to supply that lost from cold and exposure.

Strawberry plants should be set out in early spring or in August, in both cases the object being to derive the advantages of the early and late rains. The plants should be set one foot apart, in rows three feet apart, and should not be allowed to fruit or run the first year. Avoid getting the boar fat. Feed him no corn at all, and allow him plenty of room for exercise. If too fat he will be of but little service, and as it will be less expensive to keep him in moderate condition it is a matter of economy not to feed him heavily. Bronchitis is cured by frequent small doses of Pico's Cure for Consumption.

Examine the weak points of your brood mares, and then select stallions to breed them to that will counterbalance these points.

"Hope on, hope ever." How many delicate ladies there are who, while they attend to their daily duties, do so with aching heads, a sense of faintness, pain in the back and depressed spirits, who are "only keeping about," as the phrase is. Some day they "go into a decline," and leave their children motherless. To such we would say, "Cheer up." Timely use of Dr. Pierce's "Favorite Prescription" corrects all female irregularities, weakness, and kindred ailments easily, pleasantly and quickly.

Nothing is so good but that it might be better; and he who sells the best wins the trade.

All diseases of lower bowel, including pile tumors, radically cured. Book of particulars, 10 cents in stamps. World's Dispensary Medical Association, 663 Main Street, Buffalo, N. Y.

BUREAU COVERS.—Pretty bureau covers are made of white mousseline cloth, and ornamented with outline embroidery. The edge is finished with an antique lace two inches wide. This lace is also used to border a square of satin on which some delicate flower design has been painted, and makes a very handsome table.

WALL ORNAMENT.—For a wall ornament an outgoing board is covered with velvet plush of cerulean blue, gilded nail heads at corners, and on this is placed diagonally a small sheaf of wheat, and in the space to right a quarter moon of yellow everlasting flowers, the same flowers in purple forming the inner edge.

DYSPEPSIA
Causes its victims to be miserable, hopeless, confused, and depressed in mind, very irritable, languid, and drowsy. It is a disease which does not get well of itself. It requires careful, persistent attention, and a remedy to throw off the causes and tone up the digestive organs till they perform their duties willingly. Hood's Sarsaparilla has proven just what is required in hundreds of cases.

"I have taken Hood's Sarsaparilla for dyspepsia, from which I have suffered two years. I tried many other medicines, but none proved so satisfactory as Hood's Sarsaparilla. THOMAS COOK, Brush Electric Light Co., New York City."

Sick Headache
"For the past two years I have been afflicted with severe headaches and dyspepsia. I was induced to try Hood's Sarsaparilla, and have found great relief. I cheerfully recommend it to all." Mrs. C. E. ANNABLE, New Haven, Conn.

Hood's Sarsaparilla
Sold by all druggists. \$1; six for \$5. Made only by C. L. HOOD & CO., Lowell, Mass.

VINEGAR BITTERS
is the great Blood Purifier and Life-giving Principle; a Gentle Purgative and Tonic; a perfect Renovator and Invigorator of the system. In all cases of Biliousness, Indigestion, or any other disease of the system, in a short time by the use of the Bitters, the system is brought to its normal condition. It removes, and in time cures Rheumatism, Neuritis, Gout, and similar painful diseases. Vinegar Bitters cures Constipation and prevents Diarrhoea. Never before has a medicine been so prominently promoting the power of VINEGAR BITTERS to heal the sick. Send for either of our valuable reference books for ladies, for farmers, for merchants, our Medical Treatise on Diseases, or our Catechism on Intemperance and Tobacco, which last should be read by every child and youth in the land. Any two of the above books mailed free on receipt of four cents for registration form. R. H. McDonald Drug Co., 523 Washington St., N.Y.

RADWAY'S PILLS
The GREAT LIVER and Stomach Remedy

For the cure of all disorders of the Stomach, Liver, Bowels, Kidneys, Head, Nervous Diseases, Loss of Appetite, Headache, Constipation, Indigestion, Biliousness, Fever, Inflammation of the Bowels, Piles, and all derangements of the internal viscera. Purely vegetable, containing no mercury, minerals, or deleterious drugs. Price, 25 cents per box, six by all druggists.

DYSPEPSIA!
"DR. RADWAY'S PILLS are a cure for this complaint. They restore strength to the stomach and enable it to perform its functions. The symptoms of Dyspepsia disa par, and with them the ability of the system to contract disease. Take the medicine according to directions, and observe what we say in 'Faith and Truth' respecting diet. Send a letter stamp to Dr. RADWAY & Co., 22 Warren Street, New York, for 'Faith and Truth'."
Be sure to get RADWAY'S.

DR. RADWAY'S Sarsaparillian Resolvent,
Builds up the broken-down constitution, purifies the blood, restores health and vigor. Sold by druggists, \$1 a bottle.

RADWAY'S READY RELIEF.
For the relief and cure of all Pains, Congestions and Inflammations.
DR. RADWAY & CO., 22 Warren St., N. Y.

ALLEN'S LUNG BALSAM
THE BEST AND CHEAPEST
Cough or Croup REMEDY.
It contains no Opium in Any Form.
ALLEN'S LUNG BALSAM is the most effective remedy for all cases of Cough, Croup, Whooping Cough, Asthma, and all other pulmonary diseases. It is sold by all druggists.

NERVOUS DEBILITATED MEN.
You are allowed a free trial of thirty days of the use of Dr. Kline's Great Nerve Restorer. If you are afflicted with any of the following ailments, you should try it at once. It is a positive cure for all cases of Nervous Debility, Headache, Dizziness, Weakness, and all other ailments of the nervous system. It is sold by all druggists.

WANTED.
An active man of business to sell our goods. Salary in ad. per week and expenses. Reply in 24 hours. Send no money. Write to **W. H. LAMBERT, 112 N. BROADWAY, N. Y.**

PENNYROYAL PILLS
"CHICHESTER'S ENGLISH."
The Greatest Specific for all cases of Catarrh of the Bladder, Stricture, and all other ailments of the urinary system. It is sold by all druggists.

Blair's Pills
Great English Gout and Rheumatic Remedy.
Keeps the Teeth Perfect and Cleans Healthy.

MORPHINE Chloral and Opium Habits
BASILY CURED. ADVICE FREE.
DR. J. C. HOFFMAN, Jefferson, Wisconsin.

SHORTHAND WRITING.
Perfect success. Great demand for young men and women to shorthand clerks, etc. Penmanship guaranteed for six weeks with complete. Send for circular to **W. H. ROBERTS, Elmira, N. Y.**

PENNSYLVANIA INCREASED
Write to Hingham, Washington, D. C.

MEN ONLY. A Quick Permanent Cure for all cases of Gonorrhoea, Stricture, and all other ailments of the urinary system. It is sold by all druggists.

ARE THE FAMOUS
HOP PLASTERS
Talk is cheap, actual results count. Prepared from the valuable medicinal virtues of fresh Hop, combined with Balsam, Extract of Vanilla, and other ingredients. It is sold by all druggists.

TOWER'S SLICKER
The Best Waterproof Coat.
The FISH BRAND SLICKER is waterproof, and will keep you dry in the heaviest storm. The only FISH BRAND SLICKER is a perfect remedy for all cases of Rheumatism, Gout, and all other ailments of the joints. It is sold by all druggists.