

## SCIENTIFIC MUSEUM.

## Wild Jasmine for Fevers.

Dr. Hickman, in an article in the "Cincinnati Eclectic Medical Journal," describes the uses and value of the Gelsemium Lemperirens (wild jasmine) in cases of fever. He states that he has used it for about a year in a hundred cases of fever without a single failure. To prepare it, the green roots are washed and bruised, and then placed in a clean glass vessel, and good whiskey poured upon them until they are covered, when they are suffered to stand and macerate for ten days, after which they are ready to be strained. About 30 drops of this tincture are given to an adult every three hours until three doses are taken. In all cases of fever he gives from three to six grains of quinine along with this tincture of jasmine. It is always advantageous to use it along with quinine, as it prevents the rush of blood to the head, and is anti-spasmodic. It will relax the nervous system of itself for a short time, but the fever will return again, hence it should always be given with the quinine. This course of treatment, he states, has never failed to break up an attack of remittent fever in from six to ten hours, by first giving some mild cathartic. In bad cases of Typhoid fever, it is necessary to give a cathartic first, which will secrete the bile, and then the jasmine and quinine are given afterwards. It produces great relaxation of the nervous system, with dimness of vision, but he asserts that no deleterious effects follow; it should be given in all cases until the patient becomes drowsy.

## Silk Manufacture.

The quantity of silk annually consumed by women and balloons is so great, that it is really astonishing how worms and mulberry trees keep up the supply. According to "The Paris Review" there are, in France, no less than 130,000 looms for silk, or which the products amount in value to three hundred millions per annum. The fabrics of Lyons yield about or nearly two-thirds of that sum—a moiety of the whole is exported—three-fifths of the exports from Lyons; the United States consume the greater part. Competition is formidable abroad, especially in Great Britain and Germany; but it was acknowledged at the Great Exhibition that Lyons retained pre-eminence in designs and tissues. The 70,000 looms of Lyons occupy 175,000 individuals; one half of these are dispersed over a radius of from 20 to 25 leagues; the others are in the bosom of the city. There are three hundred manufacturing firms, embracing from four hundred and fifty to five hundred names. The average earning of the operative is thirty cents per day.

## Opium Eating in New York.

Dr. Schofield, in a letter to the "Daily Times," asserts that 1000 lbs. of opium are sold by retail, weekly, in New York. This amounts to 52,000 lbs. per annum, and does not embrace the quantities that may be purchased wholesale by some of those who daily use it. He states that "its use is fearfully on the increase in this city, and it is constantly receiving recruits from the alcoholic ranks as a cheap means of producing intoxication. Opium inebriation is productive of the greatest evils; it is a fearful species of drunkenness. It drowns care for a while, and is therefore very seductive in its influence, but it bringeth forth tears, disease, and death. It is to be regretted that its use should be on the increase among us; something should at once be done to meet and arrest the evil."

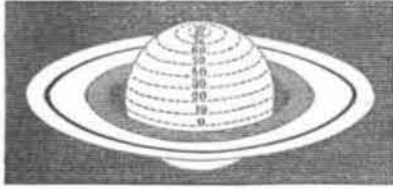
## Marquette Lighthouse.

The lighthouse is now ready for inspection by the Superintendent of Lights, and only waits for lamps, oil, and keeper, to render it of service to the mariners of Lake Superior. It is said to be a well-built house, and we hope it will be speedily supplied with its furnishings, and made ready for use.

La Cuscarilla (Peruvian bark), one of the most important products of Bolivia, pays a duty of \$10 per quintal to the government for the right of cutting. Notwithstanding this duty, the exportation has been so great, of late years, that the Congress passed a law, some

eighteen months ago, which took effect about a year since, prohibiting any further cutting for five years.

The Planet Saturn with the Third Ring as seen through Craig's Great Telescope.



The annexed engraving is a perspective view of the planet Saturn, with its third ring, as seen through the great telescope of Mr. Craig, at Wandsworth Common, London. In 1838, Dr. Galle, of Berlin, had noticed a gradual shaking of the inner ring of Saturn towards the body of the planet, and had published an account of his observations in the Transactions of the Berlin Academy. This memoir was so little known, that Prof. Bond of Cambridge, Mass., discovered this third ring in 1850, and published an account of the same. The Rev. Mr. Dawes, of Waterbury, in November 1850, also succeeded in making out some additional facts about this new appendage. The London Illustrated News states that Prof. Challis, of Cambridge, England, failed to discover this third ring with the telescope of that university, and an observation made with the great reflector of Lord Rosse was equally fruitless. The new telescope of Mr. Craig, when turned upon Saturn resolved the third or interior ring, so as to leave no doubt, upon the subject; in color, it is a brilliant slate.

Saturn is one of the most interesting of the heavenly bodies, owing to the rings by which it is surrounded. Galileo was the first to notice some strange phenomena connected with Saturn, but Huyghens, the German philosopher, was the first to discover the ring which was announced by him in 1656. Dominic Cassini, an astronomer at Paris discovered a second ring in 1675, and now Prof. Bond truly may be said to have discovered the third ring, that darker colored one seen in the inside of two luminous ones in the engraving. The rings of Saturn are broad and flat, and situated precisely in the plane of the planet's equator. Dark divisions have also been discovered in the outer or exterior ring of Saturn, but the dark interior ring for some time will excite great attention in the astronomical world. The thickness of the rings does not exceed 100 miles, according to the estimate of Sir John Herschel, and Prof. Bond, it is said, believes that the substance of the dark ring is aqueous.

The question may be asked, "of what substance are the rings of Saturn composed?" A strict soldier of the nebular hypothesis should stick to his theory and arms by asserting that the planet and rings were once in a fluid state, and the planet cooled, contracted, and shrunk from the rings. The inner ring at least is, in all likelihood, aqueous, and it is probable that if we could view our own globe from the moon, we would perceive that it also has a ring, and perhaps rings. This is the opinion of Lieut. Maury. He says "the belt of equatorial calms and rains encircles the earth. Were the clouds which overhang this belt luminous, and could they be seen by an observer from one of the planets, they would present to him an appearance not unlike the rings of Saturn do to us."

Mr. Fishbough, the materialist philosopher of Williamsburgh, N. Y., with a remarkable absence of correct knowledge and reasoning, adduces what he considers "a new argument in proof of the nebular hypothesis, which has escaped the notice of astronomers," and takes for his proof and example the planet Saturn. With a prodigious amount of undefined talk respecting centripetal and centrifugal forces, he proves the nebular theory by the bulged form of this planet's equator. How this proves the nebular theory we cannot divine. Although the equatorial is greater than the polar diameter of Saturn, there is no solid equatorial ring, the poles are only flattened, and if this has been produced by the great centrifugal force caused by the rapid rotation of the planet, how can we account for such an amount of flattening at the poles of Saturn in

comparison with that of Jupiter, which revolves much faster on its axis than Saturn, in proportion to its bulk. Jupiter is 92,130 miles in equatorial diameter, and 85,430 miles in polar diameter, a difference of 6,700 miles. Saturn's equatorial diameter is 77,230 miles, and polar diameter is 69,300, a difference of 7,930. Saturn rotates on its axis in 10 h. 16' 04 s. Jupiter rotates on its axis in 9 h., 55 m., 29 s. It revolves faster on its axis than Saturn; it is 14,900 miles greater in equatorial diameter than Saturn, and yet it is not so flattened in polar diameter in proportion to its bulk. The centrifugal force which this materialist philosopher talks about as generated by rotation cannot account for this difference between Jupiter's and Saturn's form. Jupiter, owing to its great bulk and velocity, should present a greater difference between its equatorial and polar diameter than Saturn, but the very reverse is the fact.

Saturn appears to be a perfect ellipse; it was long supposed to resemble a parallelogram, with the four corners rounded off, so as to leave the equatorial and polar regions flatter than they would be in a perfect sphere.—This opinion was first advanced by Sir Wm. Herschel, but Prof. Bessel, in 1833, gave results by actual micrometric measures, which prove it to be an ellipse. The axis of Saturn is inclined to his orbit 63° 10', or 61° 50' to the plane of the ecliptic, and it has therefore a considerable diversity of seasons, and it has, according to Sir William Herschel, a very dense atmosphere. The color of this planet's surface, is a yellowish white. It is attended by eight satellites; it revolves round the sun in 29½ years; its distance from the sun is 909,028,000 miles, but its orbit is very eccentric, and it is sometimes nearer the sun by 102,000,000 miles.

The most ancient observation of Saturn was made by the Chaldeans 228 B. C. Since then astronomy has completely changed its character, and made such advances as to be considered the most perfect science. We are indebted to the invention of the telescope for our modern discoveries, and we are not at the end of such improvements yet. It is hoped that the great Craig telescope will be the means of settling the dubious point whether Saturn's outer luminous ring is divided into several narrow ones.

## Adulteration of Beer with Strychnine.

Graham and Hoffman at the instance of a prominent English brewer, Mr. Alsopp, and in consequence of reports, originating in Paris, that English ale and beer occasionally derived its bitterness from strychnine, have carefully tested various specimens of these beverages, but without discovering a trace of the poisonous alkaloid. Strychnine when present in no greater quantity than 1-1000 of a grain may be detected by the following process:—The suspected powder is to be moistened with a drop of undiluted sulphuric acid, and a few fragments of bichromate of potash added. An intense beautiful violet color immediately appears at the points of contact which quickly spreads through the whole fluid, and after a few minutes again vanishes. The presence of small quantities of organic matter prevents this reaction; in testing beer the authors adopted the following process:—Half a gallon of beer to which one-half a grain of strychnine had been added was shaken with two ounces of animal charcoal, and the fluid allowed to stand over night. The next day the beer was found almost free from bitterness, the strychnine having been precipitated with the coal. The coal was thrown on a filter, washed, boiled with alcohol and the alcoholic filtrate distilled. The residue in the retort was shaken with a few drops of a solution of caustic potash and about an ounce of ether. The ethereal solution evaporated on a watch glass gave a mass in which the presence of strychnine was easily detected by the test above given.

## Lloyd's.

Dickens, in his "Household Words," gives a full account of this world renowned institution of commerce, with its 296 agents in foreign and colonial ports, its prodigious amount of underwriters, its immense means of furnishing succor to vessels, seamen, and passengers, and its liberal contributions to objects of charity. Lloyd's may be called the great com-

mercial sensorium of the world, which receives vibration from every nerve that trade agitates, or tempests disturb, or hurricanes shock. Lloyd's has 217 underwriters, 1,368 members, 503 subscribers to the merchant's rooms, and an income of £12,000 sterling per annum. Lloyd kept a tavern, called the "Pope's Head," where the Society of Underwriters used to meet, after the great fire of London which burnt them out in Lombard street, where they remained until 1764, when they took up their quarters in the Royal Exchange. Lloyd's agents may be found in every part of the civilized world.

## The Chinese.

While the Governor of California is trying to drive the Chinese out of that State, the government of British Guiana offers a bounty of \$80 on their importation.

Governor Hunt, of New York, has issued his proclamation, recommending that Thursday, the 25th of November, be observed as a day of prayer and thanksgiving.

## LITERARY NOTICES.

THE GERMAN LANGUAGE; ELEMENTARY WORKS.—Messrs. Weik & Wieck, of Philadelphia, have published two excellent elementary works, by F. Ahn, Doctor of Philosophy at the College of Neuss. They afford a new and easy method of learning the German language. The pronunciation is arranged according to Oehlschläger's Pronouncing German Dictionary. We now receive a great number of German exchange papers, which are published in different parts of our country; this language, therefore, is becoming every day of more importance to great numbers of our people. German literature occupies a high position; we therefore heartily recommend these elementary works, which are well printed and philosophically arranged, to all those who desire to study the German language.

The Phrenological and the Water Cure Journals, for November, are filled with sterling matter. The former contains a portrait and description of that celebrated individual, P. T. Barnum, Esq., of Bridgeport, Ct. The article proves, beyond all cavil, that, instead of being a humbug, he has always been the victim, not, however, to his own disadvantage, because, while others have been shaking the bush, he has been wise enough to catch the bird. Barnum knows how to keep himself before the community. The two journals are published by Messrs. Rowles & Wells, Clinton Hall, N. Y., at \$1 each per year.

The "Democratic Review," for November, contains portraits of Gen. Pierce, President elect, and of Louis Napoleon, the latter being somewhat distorted, resembling the Napoleon of the Press (Bennett) more than "his Uncle's Nephew." The Review is an able exponent of the views entertained by the party whose name it bears. Published monthly by G. N. Sanders, 170 Broadway, N. Y., at \$3 per annum.

The "Tropical Farmer," devoted to agriculture, domestic and rural economy; published monthly by Lewis C. Gaines, at Ocala, Florida. Terms \$1 per annum. The number before us is ably edited, and we wish our cotemporary success.



## Manufacturers and Inventors.

A new Volume of the SCIENTIFIC AMERICAN commences about the middle of September in each year. It is a journal of Scientific, Mechanical, and other improvements; the advocate of industry in all its various branches. It is published weekly in a form suitable for binding, and constitutes, at the end of each year, a splendid volume of over 400 pages, with a copious index, and from five to six hundred original engravings, together with a great amount of practical information concerning the progress of invention and discovery throughout the world.

The Scientific American is the most widely circulated and popular journal of the kind now published. Its Editors, Contributors, and Correspondents are among the ablest practical scientific men in the world.

The Patent Claims are published weekly and are invaluable to Inventors and Patentees.

PRIZES—We solicit attention to the splendid Prizes offered for the largest number of subscribers, consisting of a SILVER PITCHER worth \$60; a set of the ICONOGRAPHIC ENCYCLOPEDIA worth \$35; DEMPSEY'S MACHINERY OF THE NINETEENTH CENTURY, and C. B. Stuart's great work upon the NAVAL DRY DOCKS OF THE UNITED STATES.

Letters should be directed (post-paid) to  
MUNN & CO.,  
128 Fulton street, New York.

## Terms! Terms! Terms!

One copy, for One Year	\$2
“ Six Months	\$1
Five copies, for Six Months	\$4
Ten Copies for Six Months for	\$8
Ten Copies for Twelve Months,	\$15
Fifteen Copies for Twelve Months,	\$22
Twenty Copies for Twelve Months,	\$28

Southern and Western Money taken at par for subscriptions, or Post Office Stamps taken at their full value.