

## SCIENTIFIC AND SANITARY.

DR. MITSCHERLICH has invented a stuff made from the fibres of wood. Thin boards, with the knots taken out, are treated with a solution of sulphuric acid in a hollow boiler. Not only the hard matter, which is the cause of the brittleness of wood fibres, is eliminated by this treatment, but the fibre itself is chemically transformed. It is bleached, and becomes silky as well as strong and elastic. It is then treated in the same manner as any other goods, that is, combed, spun, and finally woven into stuffs of exceeding fineness and different varieties.

At a recent meeting of the New England Railroad Club, F. D. Adams, of the Boston and Albany Railroad, gave some interesting data relative to the cost and efficiency of the various methods of lighting cars. He declared that sperm oil, used with a special burner, gives the best and most brilliant light that has ever been used on a train. He said that the Boston and Albany Railroad ran two trains lighted by electricity for two years at an enormous expense without getting as good a light as would have been given by an equal number of oil burners. In his opinion no road can afford to use electricity for lighting trains.

HUMBOLDT estimated that Asia stands at an average height of 1,150 feet above the level of the ocean; South America, 1,130; North America, 750; Europe, 670 feet. The average height of all the land above sea level—omitting Africa and Australia, which are mostly south of the equator—is about 820 feet. The landed surface of the Northern Hemisphere is about 44,000,000 square miles; that of the Southern Hemisphere about 14,000,000 to 16,000,000 square miles, leaving a difference of, say, 28,000,000 square miles of land of an average height of 920 feet above sea level. —*Boston Globe.*

THE correspondent of the *London Times* at Alexandria, Egypt, states that three colossal statues, ten feet high, of rose granite, have just been found at Aboukir, a few feet below the surface. The discovery was made from indications furnished to the Government by a local investigator, Daninos Pasha. The first two represent in one group Rameses II. and Queen Hentmara seated on the same throne. This is unique among Egyptian statues. The third statue represents Rameses standing upright in military attire, a sceptre in his hand and a crown upon his head. Both bear hieroglyphic inscriptions, and both have been thrown from their pedestals face downwards. Their site is on the ancient Cape Zephyrium, near the remains of the Temple of Venus at Arsinoe. Relics of the early Christians have been found in the same locality. —*Science.*

## "August Flower"

Mrs. Sarah M. Black of Seneca, Mo., during the past two years has been affected with Neuralgia of the Head, Stomach and Womb, and writes: "My food did not seem to strengthen me at all and my appetite was very variable. My face was yellow, my head dull, and I had such pains in my left side. In the morning when I got up I would have a flow of mucus in the mouth, and a bad, bitter taste. Sometimes my breath became short, and I had such queer, tumbling, palpitating sensations around the heart. I ached all day under the shoulder blades, in the left side, and down the back of my limbs. It seemed to be worse in the wet, cold weather of Winter and Spring; and whenever the spells came on, my feet and hands would turn cold, and I could get no sleep at all. I tried everywhere, and got no relief before using August Flower. Then the change came. It has done me a wonderful deal of good during the time I have taken it and is working a complete cure."  G. G. GREEN, Sole Man'fr, Woodbury, N.J.

In the Straits of Mackinac there is operated a boat of great strength that serves for transferring passenger cars. It has enormous capacity, and carries twenty-four steam engines for the various requirements of its daily business. The hull of the vessel is built in the most solid manner, as the weather throughout the winter becomes exceeding cold, and one of the duties of the vessel is to keep a channel open for itself. The bow rises from the water so as to hang over and hammer the ice if necessary. In operation the boat shoves her nose upon the edge of the ice and literally lifts itself upon it, and then a propeller under the overhanging bow sucks the water from under the ice and enables the weight of the vessel to more easily crush it. The boat has made for herself a channel through some of the thickest ice to be found in that semi-polar region.

MENTION has been made in these columns of devices for stopping an engine by merely pressing a button in a distant room. In addition to the usual hand-wheel on the throttles-valve there is a pinion which engages in a rack running on guides below. At the other end of the bar in which the rack is cut is an electro-magnet, the armature of which controls a latch, which is held out of contact by means of a very light spring. When the current is closed, however, the magnet attracts the armature and forces the latch against the tension of the spring, and in this way it engages in a projection placed on the cross-head of the piston. On the inward stroke of the piston the projection carries the bar back, and, in doing so, the rack rotates the steam valve and the latter is closed, thus stopping the engine. The electric button controlling this device may be placed in any part of a mill or factory, and the engine may be shut down at any of these points whether the engineer is in the room or not. An additional clock-work device is sometimes inserted in the circuit so that the current stops the engine automatically at any hour desired. —*Philadelphia Record.*

THE British East Africa Company have determined to make a complete survey of the district between the East coast of Africa and Victoria Nyanza, the vast inland sea. The idea of having a railway to this lake has been discussed for some time, and Sir John Fowler, on being appealed to, gave it as his opinion that a railway was practicable, and need not cost over two millions sterling. This opinion, of course, could only be formed on incomplete information, for while travellers, like Mr. Joseph Thomson, who has just returned from the interior of Africa, Dr. Fischer and Count Teleki, have afforded information as to the nature of the country to be traversed, little is known about the formidable Mau escarpment and the country lying between that precipice and the lake. A thorough survey is therefore desirable, and the British East Africa Company, with commendable enterprise, have determined to send out a party, the chief of which will be Captain J. R. L. MacDonald, with Captain J. W. Pringle as assistant, both being officers of the Royal Engineers. Captain MacDonald is attached to the Indian Public Works Department, and has had much experience of railway surveying in India. The surveying party will leave England in about ten days, says *Engineering* of Oct. 30, and on arrival will separate into two or three sections. One party will proceed along the Sabaki River, and the other will start from Mombasa. Both will meet up the Sabaki and explore both banks. From Machakos the party will separate into three parties. The return will be via the Kampéplain, so that eight months will probably be occupied in the work. It is hoped that the result of the survey will be the construction of a railway to the shores of the lake, as by this means it will be possible to open up a very large tract of virgin country for trading purposes. But we do not know that the opinion will be equally unanimous as to the railway being made by the government. The British East Africa Company will profit most largely, and surely they should bear the financial risk, if there be any. In any case the survey must have valuable results, as it will afford definite information of that part of Africa, regarding which so little is known and in which so much interest is taken. —*Science.*

Minard's Liniment Lumberman's Friend.

THE process of colour photography, by which all the colours of the rainbow are reproduced by the camera, has been for years engaging the attention of the inventor, Frederick E. Ives, and has finally been brought by him to a most successful pass. As yet, however, Mr. Ives has confined himself to that branch of the art which applies to the projection of colour-photographs on lantern slides, and here he has been unusually successful. The process consists in first making three photographs to represent the effect of the object photographed upon the three fundamental colour sensations in accordance with the theory of colour vision now accepted by scientists. The three negatives are made from the same point of view and by simultaneous and equal exposure on a single sensitive plate, an operation both simple and inexpensive. The lantern positives are then projected upon a screen either by superposition or in transparent gelatine prints by means of a triple magic lantern. In one of the three photographs the green of the landscape is brought out lighter than in the others, in another the blue is made lighter, and in the last the red colour. A strong green light is then thrown upon the first mentioned photograph, a violet blue light on the second, and red on the third, and the whole is thrown upon the screen in a single picture, in exact imitation of the original. Mr. Ives has been working on his process for many years, and hopes in the near future to bring his invention to such perfection as to reproduce in their original colours any subject in nature, and to produce colour-photographs similar to the colourless ones now on the market. He has experienced considerable difficulty, however, in the perfection of this branch thus far, because of several fundamental principles almost insurmountable. The process would also require too much time and money, as far as he can see at present, to make it of any marketable value. He has, however, succeeded in making several window transparencies in colour, with which he is much pleased. Dr. F. Stolze, of Berlin, and Henry Sturme, editor of *Photography*, of London, are very well impressed with Mr. Ives' invention, and a number of gentlemen of London, who recently visited Mr. Ives, and to whom he displayed the result of his labours, expressed themselves as highly delighted. On December 18 Mr. Ives will lecture before the Franklin Institute and make practical and interesting remarks on the subject, illustrating them with samples of his work on lantern slides. —*Philadelphia Record.*

### DR. T. A. SLOCUM'S

OXYGENIZED EMULSION OF PURE COD LIVER OIL. If you have a Cough—Use it. For sale by all druggists. 35 cents per bottle.

If you suffer from catarrh why don't you take Hood's Sarsaparilla, the common sense remedy? It has cured many people.

THE hot-water boxes are to be taken out of the French railway carriages and warmth is to come from boxes filled with acetate of soda. The boxes are filled with soda in a solid state, which is liquefied by being plunged into hot water. As it solidifies, which takes five or six hours, it steadily gives out heat.

### CATARRH

In the head  
Is a constitutional  
Disease, and requires  
A constitutional remedy  
Like Hood's Sarsaparilla,  
Which purifies the blood,  
Makes the weak strong,  
Restores health.  
Try it now.

C. C. RICHARDS & Co.

Gents.—We consider MINARD'S LINIMENT the best in the market and cheerfully recommend its use.

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Univ. of Penn.

AMONG the many electric novelties that are being constantly introduced for the benefit of the dentist and surgeon, one of the most recent and useful is the laryngoscope. The lamp is so placed as to illuminate all parts of the throat and thus enable the operator to determine with ease and accuracy the state of the diseased parts.

## Catarrh

Is a constitutional and not a local disease, and therefore cannot be cured by local applications. It requires a constitutional remedy like Hood's Sarsaparilla, which, working through the blood effects a permanent cure of catarrh by eradicating the impurity which causes and promotes the disease. Thousands of people testify to the success of Hood's Sarsaparilla as a remedy for catarrh when other preparations had failed. Hood's Sarsaparilla also builds up the whole system, and makes you feel renewed in health and strength. All who suffer from catarrh or debility should certainly try Hood's Sarsaparilla.

### A Perfect Cure

"I have been taking Hood's Sarsaparilla for the past four years at intervals. I was troubled with catarrh, and the medicine effected a perfect cure. I take it now whenever I feel debilitated, and it always gives me immediate strength, regulates the bowels and gives an excellent appetite."—LEVI CAMPBELL, Parkersburg, W. Va.

N. B.—Be sure to get

## Hood's Sarsaparilla

Sold by all druggists. \$1; six for \$5. Prepared only by C. I. HOOD & Co., Lowell, Mass.

100 Doses One Dollar.



## CHRISTMAS AND NEW YEAR'S

WILL ISSUE TO

### STUDENTS and TEACHERS

Round Trip Tickets at FARE AND A THIRD, good going December 9th to 31st, 1891, and to return up to January 31st, 1892.

### GENERAL PUBLIC

Round Trip Tickets at FARE AND A THIRD on December 24th and 25th, and December 31st and January 1st, 1892, inclusive, good to return until January 4th, 1892, and at

### SINGLE FARE

On December 24th and 25th, good to return up to December 26th, and on December 31st, and January 1st, good to return until January 2nd, 1892.

MAKE A

### Christmas Present! "Brown's Perfection Shoe Rest."

Hold's Brush, Dauber, Blacking and Ladies' Dressing. A perfect rest for the foot while polishing the shoe. "Always ready and out of the way."

For Homes, Offices, Stores, Banks, etc.

Description.—This Shoe-Rest is made of solid cast-iron, weighs 12 lbs., and is beautifully finished. It screws to any wall or door-case and swings entirely out of way when not in use. No dirt, and unnecessary to touch blacking while using it.

LADIES, GENTLEMEN AND CHILDREN USE IT.

Warren St. Savings Bank, Peabody, Mass.

Gents.—The Shoe-Rest purchased of you recently just fills the bill. It is neat and tasty, takes up but little room and answers its purpose admirably. It is the most complete blacking arrangement I have ever seen. Yours truly, A. J. MERRILL, Treasurer.



Price by Express, \$2.50, Customs paid. Sent, neatly packed, on receipt of price, a dress—

NATIONAL SHOE REST CO., DETROIT, MICH.

Dealers write for circulars and prices. Salesmen Wanted.

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