

THE NICARAGUA CANAL CONVENTION.

At the recent New Orleans convention, which was attended by prominent business men from many sections of the country, the main effort was to bring to bear upon Congress sufficient influence to secure government aid in building the Nicaragua Canal,* such aid to be extended in such way as to give the government almost sovereign power over the work. Senator Morgan, of the Committee on Foreign Affairs of the United States Senate, made the principal speech, in which he insisted that the bill now before the Senate, providing for the indorsement of \$100,000,000 canal bonds, ought to be passed, and receive the hearty approval of all intelligent citizens. He said the canal company was willing to give to the government \$70,000,000 of the bonds, in order to lodge the control of the canal in Washington, and thought that the concession of a neutral strip of land along the canal by Nicaragua would prove to be really the cession of so much territory to the United States. A strong committee was appointed to urge upon Congress "to take such steps and give such financial aid as will insure the speedy completion of the canal at the minimum cost thereof, taking proper security for any credit pledged or money advanced for this purpose, and retaining such control and supervision of the same as will insure the peaceful use of this great enterprise to the commerce of the world at the lowest possible rates."

To Darken Oak.

Oak for decorative wood work is produced by fuming the material with ammoniacal vapor, which effectively produces the dark coloring so much desired. In accomplishing this, the method consists in placing the material to be darkened in an approximately airtight room in which no light enters; or for small work a packing box will suffice, the joints or cracks to be well pasted over with paper. In this room or receptacle for depositing the furniture or other articles is placed a flat porcelain or earthen vessel filled with ammonia, the vessel containing the liquid being, of course, set on the ground or floor, that the fumes or vapor may strike to advantage the articles to be darkened; if the apartment is large, two or more vessels containing ammonia may be employed and allowed to remain until the desired effect is secured. The ammonia does not touch the oak, but the gas that proceeds from it acts in a peculiar manner upon the tannic acid contained in oak, browning it so deeply that a shaving or two may actually be taken off without removing the color. The depth of shade depends upon the quantity of ammonia used and the duration of exposure.

A Demonstration of the Cholera Bacillus.

At a recent meeting of the Section in General Medicine of the New York Academy of Medicine, Dr. E. K. Dunham gave a most interesting demonstration of the comma bacillus of Asiatic cholera. Tube cultures and plate colonies of the organism were projected upon the screen, and their morphological and biological characters pointed out. The bacilli themselves were shown under the microscope, both alive in a drop of the culture fluid and also stained by the ordinary methods. Photomicrographs of the latter were also shown by means of the dark lantern. The cultures had been made in the usual way from the dejecta obtained from the nine cases of cholera recently observed in New York. In two of the cases cover glasses, prepared directly from the intestinal contents, showed the characteristic germ. In the seven other cases cultures had been required before the bacillus was found. Cultures from some of these cases had been sent to Dr. Petri, director of the bacteriological department of the Imperial Board of Health at Berlin, and a letter in reply had been received from Dr. Petri stating that he could detect no difference between Dr. Dunham's cultures and those made from the cases in Hamburg.—*N. Y. Med. Jour.*

Oil of Sweet Almonds.

The United States consul in Liverpool recently received orders from government to inquire into the manufacture of oil of sweet almonds in England. He reports that two London firms, whom he names, seem to be the principal, if not the only, firms in England engaged in this business. The kernels are crushed by hydraulic pressure, and from the cake thus formed the oil is distilled. The same process is carried on in Havre; but it is said that there the kernel of the peach is used instead of the almond, and that, consequently, the oil is cheaper in price and not so good.

THE use of rubber tires on private carriages has become quite common in this city. For invalids and nervous persons our physicians recommend their use. But the rubber tire is not only expensive, but lasts only a little while, owing to our rough pavements and street railway tracks. Why will not some one invent a cheaper substance than rubber, which will be more enduring, cost less, and be sufficiently elastic to meet the requirements?

*Illustrations and full details of the canal and its cost may be found in SCIENTIFIC AMERICAN SUPPLEMENTS 683 and 687.

Menthol.

The medicinal use of menthol in China and Japan goes back into the dateless ages. Isolated references to its application in the East are met with here and there in the records of western travelers in those parts, but, says the *Chemist and Druggist*, we shall probably never know the name of its discoverer or the early history of its introduction. We do not even know with absolute certainty when, and by whom, menthol crystals were first brought to the notice of European pharmacologists. It is said that they have been used pharmaceutically on the Continent as long ago as the end of the last century, but if that statement is capable of proof, the drug must have fallen into oblivion shortly after its introduction, for it was certainly utterly unknown, even by repute, to most persons in the drug trade twenty-five years ago. Somewhere about 1864 a consignment of the drug was received in London under the name of Chinese peppermint oil, and passingly commented upon for its curious property of solidifying with a fall in the temperature. To the late Mr. John Mackay, of Edinburgh, belongs the distinction of first having called the attention of British pharmacists to the valuable properties of menthol. Mr. Mackay is believed to have brought "Po-Ho oil" with him from Paris, where it was then sold, in the small red-labeled Chinese bottles familiar to eastern travelers, as a kind of proprietary article. Had menthol been an utterly valueless quack medicine, it would, perhaps, have taken Europe by storm then, and reigned for a season, just long enough to gather a fortune for its first exploiter. But as the drug happened to have a solid therapeutic value, it had to wrestle through the familiar stages of contumely, ridicule, animosity, and unreasoning popularity, just like any new creed or reformer. The commercial history of menthol practically dates from 1878, when an English firm in Yokohama made a small shipment of it to London, determined not to rest until they had succeeded in securing for the remedy a footing upon the market. After many months their shipment went back, with a note from the agents, announcing that "the stuff" could not be sold here, as no one knew what to do with it. But the Yokohama firm persevered, and they reaped their reward. Four years later menthol crystals were the rage of the season, selling at 60s. per lb. wholesale, and carried about in cone shape by all persons with any pretense to the possession of a civilized nervous system.

Lysol.

Attention having been drawn by the recent cholera "scare" to the popularity of carbolic acid as a disinfectant, notice is being taken in medical circles of the even superior advantages for many purposes of the cresols as disinfectants. It was discovered that crude carbolic acid made soluble by the action of sulphuric acid surpassed in germicidal power an equally strong solution of pure phenol, besides which creolin, although free from carbolic acid, was proved to be of unmistakably superior disinfecting activity to the latter. Being insoluble in water, however, these cresols were neglected until the idea was hit upon of combining them with resin soap. Although very efficacious, these preparations were only emulsions; and it remained for the cresols to be made soluble, as now in the form of lysol, in order that what can be called the ideal soluble disinfectant should be made generally available. Lysol is produced by dissolving in fat, and subsequently saponifying, with the addition of alcohol, the fraction of tar oil which boils between 190° and 200° Cent. It is a brown, oily-looking, clear liquid, with a feebly aromatic creosote-like odor. It contains 50 per cent of cresols; and it is miscible with water to a clear, saponaceous, frothing fluid. It shows turbidity when mixed with hard water; but its disinfectant quality is not impaired thereby. It acts, to all intents and purposes, as a soap; and it is admirably adapted for use in surgical operations. According to German testimony, lysol is one of the most precious products of coal tar which chemistry has given to the service of mankind.

Waterproof and Fireproof Cement.

Herr Alwin Nieske, of Altherzberg, suggests a method for the preparation of an absolutely waterproof cement, consisting in the addition to ordinary cement of acetate or palmitate of alumina. By further adding chromate of magnesia to this mixture, the cement is made refractory as well as moisture-repelling. The idea is that cement of this character would be advantageous for use in very damp situations, or for tanks, etc., underground. The proportion of palmitate of alumina to be employed will vary according to circumstances, the nature of the mortar or cement, and the character of the work to be done; but 10 per cent of the palmitate would be a good proportion for any kind of hydraulic mortar. If the cement is needed to resist humidity, and be at the same time refractory to fire, a mixture is made in about equal parts of the cement mortar with the palmitate and a chromic magnesia prepared with oxide of chromium, 32 to 42 parts; alumina, 18 to 22 parts; magnesia, 18 to 20 parts. The mixture of these earths, wetted with water, is formed

into briquettes, which are calcined, pulverized, and kept ready for use.

Method of Capturing Mosquitoes.

An ingenious method of capturing adult mosquitoes in the house is in extensive use in some localities in New Jersey. We have not seen it described in print, and mention it here in the hope that it may be new to some of our readers. It consists in nailing to the end, or rather the top, of a stick the lid of a small tin box, such as a yeast powder box. The stick must be long enough to enable the operator to reach the ceiling, and the tin cover of the box is nailed to it in an inverted position. Into this receptacle is then poured a tablespoonful of kerosene, and the mosquitoes at rest upon the ceiling are easily trapped by simply placing this kerosene cup under them and close up to the ceiling. In their endeavor to escape they fall at once into the kerosene and are killed. On the morning of September 25 the writer captured in this way seventy-five mosquitoes on the ceiling of the room which he had occupied during the night. Most of the seventy-five were filled with blood, which, we think, is a sufficient argument in favor of performing the operation before going to bed rather than after arising!—*Insect Life.*

Gigantic Steel Works.

The Carnegie Steel Company, limited, was organized last July with a capital of \$25,000,000. Record has recently been filed at Pittsburg. The *Bulletin* has the following list of stockholders in the new company: Andrew Carnegie heads the list with \$13,833,333, or \$1,333,000 more than the controlling interest. The other large stockholders are: Henry Phipps, Jr., who holds \$2,750,000; H. C. Frick, \$2,750,000; G. Lauder, \$1,000,000; W. H. Singer, \$500,000; H. M. Curry, \$500,000; H. W. Borntraenger, \$500,000; J. G. A. Leishman, \$500,000; Wm. L. Abbott, \$250,000; Otis H. Childs, \$250,000; and J. W. Vandervort, \$200,000. There are twenty-three stockholders in all. The works included in the reorganization are the Edgar Thomson, Homestead, Duquesne, Upper and Lower Union Mills, the Lucy Furnaces, Keystone Bridge Works, Beaver Falls Mills, the Scotia Ore Mines, the Larimer Coke Works, and the Youghiogeny Coke Works.

Drake's Columbus Drinking Fountain.

At a cost of fifteen thousand dollars, John B. Drake, proprietor of the Grand Pacific Hotel, and one of Chicago's leading citizens, is just completing in that city a public drinking fountain, which is regarded as one of the most ornamental creations of its kind in the world. The design is Gothic in style, and the material is a fine warm-tinted coral granite from Italy. The structure occupies a space on the north side of Washington Street, between the city and county buildings, and is 32 feet in height. Below the platform is a chamber which will hold three tons of ice, effectually cooling the water, which flows through coils of pipe below and around the ice.

Mr. Drake has long felt that public drinking fountains in the populous parts of great cities would promote the cause of temperance in the best possible way. Let Mr. Drake's good example be followed by citizens of other cities and towns.

Where Canary Birds Come From.

When the North German Lloyd steamer Herrmann unloaded at New York lately, twenty large bundles shrouded in white cloth were carefully lifted from the hold and placed on the dock. From each bundle came a chorus of angry twitterings and chirpings and much fluttering of wings. Each bundle contained 252 little wooden bird cages, each with a canary bird in it. Immediately every one of the 5,040 birds stretched its little yellow throat in an effort to outsing his neighbor. They carolled and trilled as merrily as if they were looking out on green heath and a blue sky.

The canaries are of three grades; the \$2.50 birds, the \$5 birds, and the \$10 birds. The ordinary birds are worth \$2.50. A large, fine bird, or one of particularly handsome coloring, brings twice that price, while a distinguished vocalist will bring \$10. All the birds are males and singers. They come from Germany, where they are bred in large numbers. It is probable that all of the 5,040 birds will be sold within a few weeks. This is the busy time in the canary market, and within the past week more than 10,000 of these birds have arrived, classed as live stock.

A Large Hydraulic Ram.

Rife's Hydraulic Engine Manufacturing Company, Roanoke, Va., has recently built a hydraulic ram which yields remarkable results. It is attached to an 18 inch drive pipe with a 4 inch discharge pipe, and weighs a ton. This ram, under a head of 7 feet, elevated a gallon of water per second to a height of 34 feet. It is said that during the experiment the ram took in the requisite quantity of air and worked very steadily and satisfactorily. It has thus been demonstrated that it is quite within the range of possibilities to make larger hydraulic rams than have heretofore been thought of.