by obstructing the spiracles. M. Jousset submitted to the Society of Biology some moths which had been for six hours in contact with certain inert powders of dried leaves, wood, &c., and observed that they presented no morbid phenomena. For comparison he exhibited others which had been for one hour only in powder of pyrethrum: these were already almost dead, and presented well-marked convulsive phenomena. If the powder be previously treated with alcohol, the insecticide properties are lost at the same time that the alcohol becomes endowed with toxic properties. M. Jousset opposes the opinion which credits the poisonous effects of this powder to the essential oil which it contains. After having isolated the oil, he has determined by experiments that it was without effect on insects. Further, he has isolated an alkaloid by appropriate means, and finds it to be a crystalline substance possessing the toxic properties of the plant in a high degree. The composition and properties of this alkaloid still require elucidation.

A DANGEROUS MATERIAL.—Within three years, says the *Commercial Bulletin*, there have been three shops destroyed in Massachusetts through lampback. A hand damp with perspiration, a drop of water, a bit of grease, or a sprinkle of oil, will create combustion, which will start the lampblack aglow like charcoal, and so ignite the package, and hence the blaze. In lampblack factories, while great precaution is taken to prevent fires, a rainy or sharp frosty day will start a dampness upon the inside of a windowpane, and the flying particles of dust lighting upon this, create a spark which, communicating with the pile, may send a glow of fire with wonderful rapidity through the galleries of the shop.

A PETROLEUM THEORY.—The formation of petroleum has been explained by Mr. H. Byasson, upon experimental grounds, as follows:—If a mixture of vapor of water, carbonic acid, and sulphuretted hydrogen be made to act upon iron heated to a white heat in an iron tube, a certain quantity of liquid carburets will be formed. This mixture of carburets is comparable to petroleum. The formation of petroleum can thus be naturally explained by the action of chemical forces. The water of the sea, penetrating into the cavities of the terrestrial crust, carries with it numerous materials, and especially marine limestone. If the subterranean cavity permits these new products to penetrate to a depth where the temperature is sufficiently high, in contact with metallic substances, such as iron or its sulphurets, we have a formation of carburets. These bodies will form part of the gases whose expansive force causes earthquakes, volcanic eruptions, etc. Petroleum is always found in the neighborhood of volcanic regions or along mountain chains. In general it will be modified in its properties by causes acting after its formations, such as partial distillation, etc. Petroleum deposits will always be accompanied by salt water or rock salt. Often, and especially where the deposit is among hard and compact rocks, it will be accompanied by gas, such as hydrogen, sulphuretted hydrogen, carbonic acid, etc.

WATERPROOF PAPER.—Sheets of stout manilla passed through a hot bath of aqueous solution of zinc chloride (at 75° B.), pressed strongly together and then soaked in dilute aqueous soda solution containing a small amount of glycerine, cohere to form a strong, stiff, water-proof board admirably adapted to the construction of small boats. Single sheets of paper passed quickly through the zinc chloride bath, pressed and washed and dried, are waterproof, and may be otherwise joined to form waterproof boards by any suitable cement.—*Scientific American.*

OLD CORKS MADE NEW.—Mohr recommends that the corks be collected and soaked in hot water. The following day they are washed repeatedly with pure water and soaked in a mixture of 15 parts of hot water and 1 part of hydrochloric acid. After a few hours they are taken out of this bath, washed well and dried; they then exhibit the appearance of new cork.—*Dingl. Polyt. J.*

PEPSINE FROM THE OSTRICH'S STOMACH.—According to the *Revue des Deux Mondes*, the ostrich hunters of South America, bearing in mind the almost incredible digestive powers of that bird, extract the pepsine from its stomach, and sell it for its weight in gold to dyspeptics.

TO KEEP RATS FROM HARNESS.—It is said that if a teaspoonful of Cayenne pepper be mixed in a quart of oil, and the harness be rubbed with it, the rats will let it alone. An addition of aloes to the oil, in the proportion of an ounce to a gallon, will answer the same purpose.—*Boston Journal of Chemistry.*

GELSEMINUM SEMPERVIRENS IN NEURALGIA.—The action of this drug in affections of a neuralgic character, says the *Medical Examiner*, has recently been studied by Dr. Emery-Heroguelle, who made it the subject of his inaugural thesis. A summary of his observations appeared in a recent number of the *Paris Médical*. Taken in a large dose gelseminum produces frontal headache, stunning, visual troubles, diplopia, contraction of the pupil, and dropping of the upper eye-lid. There is also weakness of the legs. The author reports six cases of intoxication from the drug, taken in mistake. Gelseminum is administered in powder or in pills, in the dose of three-fourths of a grain to three grains of the powder of the roots. It may also be given in the form of tincture, made with 100 parts of alcohol at 60° to 5 parts of the powdered roots. The dose is from 40 to 80 drops. A syrup may be also made by adding 50 parts of the tincture to 1000 of the simple syrup. M. Dujardin-Beaumetz has also had prepared an aqueous extract and an alcoholic extract. M. Emery-Heroguelle reports thirty-one observations collected in the service of M. Dujardin-Beaumetz, and from foreign journals, all of which refer to the action of the drug on neuralgia. From an analysis of the results, it appears that gelseminum may be especially looked upon as an anti-neuralgic; that it acts favorably in cases of dental neuralgia of the