

The Cincinnati Suspension Bridge.

This immense structure is now rapidly approaching completion. The bridge was designed and is being built by John A. Roebling, Esq..... The total length of this bridge, including the approaches from Front Street, Cincinnati, and Second street, Covington, will be 2,252 feet; length of main span from center to center of the towers, 1,057 feet; length of each land suspension, 281 feet; width of bridge in the clear, 36 feet; its height above low water, 100 feet; height of towers from foundation, without turrets, 200 feet; height of turrets, 30 feet; number of cables, 2; diameter of cables, 12½ inches; strands in each cable, 7; wires in each strand, 740; wires in both cables, 10,360; weight of wire, 500 tons; deflection of cables, 88 feet; strength of structure, 16,800 tons; masonry in each tower, 32,000 perches; masonry in each anchorage, 13,000 perches; total amount of masonry, 90,000 perches; size of towers at base, 86 by 52 feet; at top, 74 by 40 feet..... There will be 500,000 feet of lumber in the bridge-way, all of which will be thoroughly soaked in tar in tanks on the Covington side, where the planing mill is located. The wrought-iron floor beams (the length of two of which makes the width of the bridge) are each 19 feet long by 5 inches wide; and there will be two joined in every five feet of the bridge—one to each suspender. The weight is 20 pounds per foot. Two iron trusses 10 feet high will separate the foot roadways, one on each side, from the carriage-ways; and flat-iron tracks, of accommodating width, will be laid for wheels to run upon. The wrought-iron girders, 30 feet long and 12 inches wide, will run the entire length, under the middle of the bridge. Ornamental iron railings will protect the foot-passages on either side. The estimated total cost of this bridge will be \$1,750,000..... Mr. Roebling may well feel some professional pride in the boldness and sagacity which he has shown in designing such structures as the Niagara and Cincinnati bridges. They are both an honor to American engineering.—*American Railway Times*.

Secretion in Ague.

During the prevalence of ague in the malarial districts of Ohio and Mississippi, Dr. Sailsbury undertook a series of experiments and succeeded in discovering large quantities of algæ, fungi, etc., in the mucous secretions of his patients.

Rinderpest Meat.

At the Royal Veterinary College at Camden Town, a number of healthy dogs have been fed upon portions of cattle that had died from rinderpest. The result of the experiment has been that the dogs are fatter and healthier than ever—the doctors are nonplussed.

Quick Travelling.

A feat of almost unrivalled travelling was recently accomplished on the Great Northern Railway. On the occasion of the late fire at Newcastle, when the safety of the high-level bridge was endangered, a telegram was sent to London requiring the attendance of Mr. Harrison, the engineer of the North Eastern Railway Company, and that gentle-

man was conveyed by an engine belonging to the Great Northern Company from King's Cross to York, a distance of 191 miles, in 3 hours, 43 minutes, including a stoppage of 8 minutes at Newark for water and lubricating the engine.—*Mechanics' Magazine*.

How Gutta Percha is Obtained.

This gum is obtained from the trees when they are about thirty years old. The natives of the Malayan peninsula and of Borneo, obtain it by the destruction of the trees. Attempts have been made to induce them to procure the sap by tapping, but the coagulation of the gum at the apertures, by exposure to the atmosphere, makes it difficult to obtain it in paying quantities. The natives boil the mass in water to soften it, cut it into strips, and then knead it with their feet while plastic, forming it into cakes.—*American Artizan*.

The Art of Dining.

The following sensible advice in the art of dining is from the pen of Prof. Blot, whose work on the art of cookery we have so often had occasion to refer to in these columns:—

"The mind has its diseases as well as the body, and I think vegetarianism is one of them. It is by a practical experience that we learn what food is proper for us, and not by chemical analysis. Every thing we eat, with the exception of salt, can be turned into charcoal, yet who can live on charcoal? An experiment has been made by the great chemist, Magendie. He fed geese on gum only and they died on the 16th day; he fed some upon starch only, and they died the 24th day; he fed others on boiled white of eggs, and they died on the 46th day, he fed others on the three kinds mixed together and they fattened instead of dying. So we must vary our food as much as possible in order to supply the waste of every part of our system. In cooking vegetables, green vegetables, such as cabbage, spinach, etc., should be put into water at its first boiling, with salt. Dry vegetables, like beans, peas, etc., should be put over the fire in cold, soft water, after having been soaked in luke-warm water—beans for twenty four hours. Potatoes should be steamed but never boiled. Steam with the skin on. Bear in mind that a potato must never be peeled: the part immediately under the skin contains the most nutriment. Cut out the eyes or germs if any; if young and tender, the skin can be taken off with a scrubbing brush; if old, scrape the skin off and then roast them. In selecting the potato, remember the smaller the eye the better the potato. By cutting a piece from the thickest end, you can tell whether they are sound. They must be either white or pink, according to the kind. Always select beans without spots. Milk and eggs partake of the nature of animal as well as vegetable food. Fish is less nutritious than meat, containing only 20 per cent of nutritious matter, but ought to be partook of at least twice a week. It contains more phosphorous matter than other food and is very good to supply the waste of our system, especially of the brain. The brain of an idiot contains about one per cent of phosphoric matter, while that of persons of sound intellect contains from two to two and a half per cent. The brain of a maniac contains three