

THE OLDEST PLANT.

At a recent meeting of the Academy of Natural Sciences of Philadelphia, Mr. Martindale exhibited some specimens of the sensitive fern (*Oenoclea sensibilis*) in the curious condition known as the variety *obtusiloba*. The matter is of great interest, from the fact that this fern is perhaps the oldest living floral organism on the globe. It is found in a fossil state, and some paleontologists believe it has been in existence for 500,000 years. On some of the prevailing theories of evolution it ought to have branched off, by "gradual modifications," into numerous descendants, and we ought to have allied species, if not allied genera. But not only are there no very closely allied genera, but only this one single species, and it shows no tendency to produce the slightest variation worth speaking about. If we could find a good substantial variation in this fern, it would be, therefore, a case of considerable interest. Dr. Asa Gray, in his "Manual of Botany," regards the so-called variety *obtusiloba* as no variety, but as a peculiar morphological condition of the same thing; and the specimen found by Mr. Martindale perfectly confirmed this view. The male frond of the *Oenoclea* is but the female frond, contracted and rolled up, as is the case in all ferns having the female fronds of a different character to the male. In the variety *obtusiloba* the sporangia are borne on a flat frond, like as in *Aspidium*, the lobes of the frond not rolling completely up, as in the perfect form. It is the same thing, with only the frond not as perfectly transformed. The sensitive fern ("sensitive" from its withering so soon after gathering) is also of interest from its being a "highly organized," notwithstanding its great age, as any fern of a much more modern origin, geologically speaking. There is, doubtless, much to sustain the theory of a gradual progress from a simple to a complex structure through the course of ages, but the *Oenoclea* is surely not among these facts.

NARROW-GAUGE PROGRESS.

The *Railway Age* has the following figures on the progress of narrow-gauge railroads, which is a matter of interest in many countries of this State: Narrow-gauge building on this continent may be said to have begun in 1871, only six years ago, and its progress may be noted as follows: 1871, miles of narrow-gauge built, 179; 1872, 450 miles; 1873, 553 miles; 1874, 819 miles; 1875, 885 miles; 1876, 509 miles. Total in operation in America, 3,157 miles. These figures are nearly correct, though, probably, not entirely complete. This shows an addition of 569 miles of narrow-gauge track in twenty-one States—more than one-fifth the total number of miles of railway constructed in the country during the year, according to most authorities. For a system practically of recent introduction and which is still considered by many of doubtful economy and efficiency, this certainly is a very surprising result. It is, however, and indicates that, in spite of the assertions of some that narrow-gauge roads will not and must not be built, they have been and will continue to be built. The thirty-three roads whose extensions are noted above have now a total length of nearly 1,000 miles, and this is less than one-third of the total narrow-gauge mileage now in operation in America. The number of narrow-gauge roads in operation in America is over 100, besides an indefinite number projected.

THE MORAL VALUE OF PHYSICAL STRENGTH.—The American scholar and thinker is by rule a dyspeptic. He is a rarer-faced, lantern-eyed, thin, nervous man. This is partly the effect of climate, and partly that of diet and regimen. In the old days of bran bread, and prayers before daylight in the colleges, and long morning walks before breakfast, and suicidal, consumptive habits, it required a pretty tough man to live through his studies at all. We are now doing this thing better, but we have not reached the highest outcome of the change, and shall not reach it, probably, for several generations. But we have come to the recognition of the fact that it does not toughen a man to reduce his diet, to cut short his sleep, to take long walks on an empty stomach, and to mingle cold baths when there is no well-sustained vitality to respond to them. We have come to the conviction that, for a useful public life, brains are of very little account if there are no muscles to do their bidding. In short, we have learned that without physical vitality the profoundest learning, the most charming talents, and the best accomplishments are of little use to a public man in whatever field of professional life he may be engaged. *Scribner's Monthly*.

THE RIGHT KIND OF A WIFE.—A farmer was once blessed with a good-natured, contented wife; but it not being in the nature of man to be satisfied, he one day said to a neighbor he really wished he could hear his wife scold once, for the novelty of the thing. Whereupon, his sympathetic neighbor advised him to go to the woods and get a load of crooked sticks, which would certainly make her as cross as he could desire. Accordingly, the farmer collected a load of the most ill-shaped, crooked, crochety materials that were ever known under the name of fuel. This he deposited in its place, taking care that his spouse should have access to no other wood. Day after day passed without a complaint. At length the pile was consumed. "Well, wife," said the farmer, "I am going after more wood; I'll get another load just such as I got last time." "Oh, yes, Jacob," she replied; "it will be so nice if you will, for such crooked, crochety wood as you brought before, does lie around the pot so nicely."

A CORRESPONDENT OF THE English Mechanic, in answer to a question as to the best means of keeping the feet dry in winter, says: "A simple plan would be, on having a pair of shoes made, to order the maker to put between the soles a piece of gutta serena as thick as a sixpence. No wet or damp will ever get through. I have adopted this plan for some years. Formerly I had both wet and cold feet continually, which was worsted stockings failed to keep warm; now I wear cotton all the winter, and never have cold feet."

POISONOUS INDIA-RUBBER TOYS.

A. F. Taylor, Ph. D., of Andover, Mass., sends the following note to the *Journal of Chemistry*: Prof. B. Tollens, in the *Journal of the Berlin Chemical Society*, of November 13th, 1876, calls attention to the injuriousness of many of the articles manufactured from caoutchouc, which, among other impurities, contain a very large per cent. of zinc oxide. In the rubber nipples of milk bottles for children, this has often been found to be the case, and so much attention has been called to this fact that the manufacture of these nipples containing zinc oxide has to a great extent ceased. But more recently suspicions have been aroused concerning the quality of children's toys, dolls, animals, etc., made from rubber. One case, in which a child, having one of these dolls, had had it for some time in its mouth, grew sick, and the doll, laid in vinegar, became covered with an incrustation (without doubt zinc acetate), led to direct investigation. In 0.7325 gramme of such a doll, 0.4445 gramme zinc oxide was found, or 60.58%. Another portion gave, after being subjected to a red heat, 62.94 gramme of ash, yellow white hot, white on cooling. In the ash besides the zinc were traces of lime, iron and phosphoric acid. From another doll which had been warranted "harmless," 57.68% of ash were obtained, consisting almost wholly of zinc oxide. It is not at all improbable that the sickness of the child, particularly the severe vomiting, was

SLEEPLESSNESS.

It is a familiar fact to medical men, says the *Journal of Chemistry*, that thousands suffer from wakefulness who are otherwise in good health. With some of them this becomes a habit, and too often a growing one. Not a few resort to soporific drugs, and the taste for opium is thus often initiated. Others find alcoholic liquors occasionally effectual, and there can be no doubt that in this way the foundation of intemperate indulgence in these liquors has been laid. Many people, however, have found a way of going to sleep without resort to such dangerous measures. For instance, looking at a fixed point steadily will often succeed in inducing sleep; or, if it is too dark to do this, closing the eyes and in imagination watching attentively the stream of air entering and leaving the nostrils. Another plan has recently been proposed by Dr. Cooke, who tells us that in many cases of sleeplessness it is only necessary to breathe very slowly and quietly for a few minutes to secure refreshing sleep. He thinks that most cases depend on hyperemia of the brain, and that in this slow breathing the blood supply is lessened sufficiently to make an impression. Certainly, when the mind is uncontrollably active, and so prevents sleep, persons whose observation was worth trusting have testified that the breathing was quick and short, and they have found they became more disposed to sleep by breathing slowly. This supports Dr. Cooke's practice, but at other times his plan quite failed. It is

COOKING FISH.

The following hints on this subject are taken from an article by the culinary correspondent of the *London Agricultural Gazette*: Fish should be washed as little as possible, and white fish, after being cleaned and wiped with a damp cloth, should have the stomach stuffed with salt for an hour or two before cooking. Fish should be put on in cold water, so that the inner part may be sufficiently done, and also it is less liable to break. This rule holds good, except for very small fish, or for salmon boiled in slices, when boiling water should be used. The time will depend on the kind and size of the fish, but it may be easily known when it is ready by drawing up the fish-plate and trying if it will separate from the bone. Here, as in other things, practice is better than all the directions that can be given, as so much depends on the strength of the fire and the size of the fish. A little salt and vinegar should always be put into the water, and some prefer the fish boiled in what is called a court bouillon, and this is how it is done: Lay the fish in the fish-kettle with enough cold water to cover it, add a glass of wine or vinegar, some sliced carrot and onions, pepper, salt and a laurel leaf, a bunch of parsley, a fagot of sweet herbs, or some of the same powdered and tied up in a muslin bag. These seasonings impart a fine flavor to most boiled fish, excepting salmon, and for fresh-water fish it is considered very useful for getting rid of the muddy taste they often have.

Frying fish may be fairly well done by first putting sufficient fat in the pan to prevent it sticking, and cooking it till of a fine brown color; but the artistic mode of frying fish is what is called the wet process, which may be simply described as boiling it in fat. There are different opinions as to what kind of fat answers best, but all agree that butter should never be used, as the expense is great, and the color never so good. Lard is considered by many to be the best frying medium; but Caramé, the great French cook, gives the preference to beef fat—but, however, the dripping from the roast, but lard made by melting beef suet, instead of the fat of the pig. What we recommend to families as best and most economical is clarified dripping, that is, the fat from the joints while roasting, poured into boiling water, and removed in a cake when cold. But whatever the medium, the great point is to have the fat at a proper temperature before the article to be fried is put in. The skillful cook can see the blue smoke rising just at the boiling point, and then she knows it is time to put in her fish; but for those who are only acquiring experience, it is safer to throw in a minute or so, than it takes a fine color in a minute or so, then the fat is hot enough, and the fish may be put in. This is the cardinal point of successful frying. As Brillat-Savarin says: "It all depends on the surprise," that is, on the fat being hot enough, or otherwise the fish will be flabby and greasy instead of crisp and appetizing. Another point to be attended to is that the fat be deep enough in the pan to cover the fish, which should be put into a wire basket that will easily fit into the pan of fat, and then no turning is required. The same fat will do again and again for 20 times, if necessary; all that is needed is to strain it into boiling water; when cold take it off in a cake, wipe off the water on the under side, and put it by for use, of course only to fry fish again.

Mummies CONVERTED INTO PAINT.—Few persons are aware that veritable Egyptian mummies are ground up into paints. But in this country and in Europe mummies are used for this purpose—the asphaltum with which they are impregnated being of a quality superior to that which can elsewhere be attained, and producing a peculiar brownish tint when made into paint, which is prized by distinguished artists both of this and other countries. The ancient Egyptians, when they put away their dead, wrapped in clothes saturated with asphaltum, bathed, as it were, better than they knew, and could never have realized the fact that ages after they had been laid in the tombs and pyramids along the Nile, their dust would be used in painting pictures in a world then undiscovered, and by artists whose languages were to them unknown. That a portion of one of the Pharaohs, or a Ptolemy, or even of the historic Mrs. Ptolemy, may even now be on the canvass of a Veruet, a Millais, or a Church, who may question!—*Washington Gazette*.

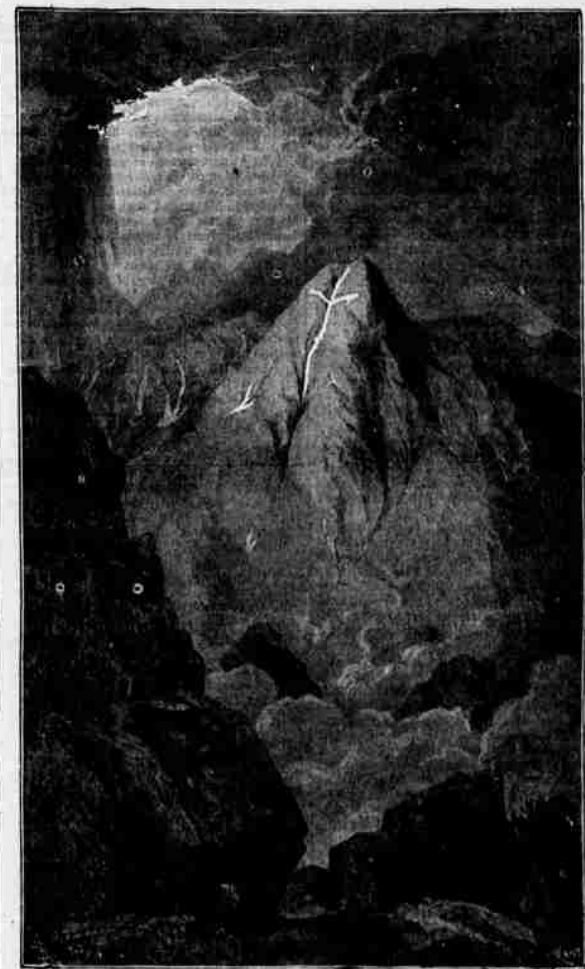
PICKLED FIGS.—"Pickled figs!" If I think I hear some reader exclaim, with a sneer of incredulity, "Who ever saw pickled figs? I never heard of such a thing!" Perhaps not, my dear sir or madam; but pickled figs are among our choicest and rarest Southern table luxuries, and if some Underwood from Boston, or other purveyor of toothsome delicacies, were to come here and put those delicious sweet pickles up in the tasteful style of Northern manufacturers, and ship them to the North and East and West, it would in a few years require hundreds of acres of fig trees to supply the demand for the rare fruit.—*Florida Semi-Tropic*.

ANILENE COLORS.—According to Mr. Joseph Seidelbach, are being extensively employed for tinting photographs, and likewise in paintings and water color drawings. He calls attention to the well known instability of these beautiful tints, and warns artists who desire the permanency of their work to avoid employing them.

CREAM AND POTATO PASTRY.—Six good sized potatoes, boiled and mashed neatly and white, one tea-cup of sweet cream, half teaspoonful of salt, and flour enough to make it stay together, and roll out. Work and handle as little as possible, and roll thicker than for common pastry.

EGG TEA.—It is a common but injurious practice for women to take a cup of hot tea on an empty stomach, when tired and exhausted. An egg broken into a weak cup of tea, well beaten and mixed with a glass of cold sweet milk, is much less injurious, and really nourishing.

DELICIOUS CORN GERM CAKE.—One quart of cream; two quarts of sweet milk; two heaped teaspoonfuls of cream-tartar; two eggs. Bake in a quick oven.



THE MOUNTAIN OF THE HOLY CROSS.

caused by the zinc oxide, and it is to be wished that the manufacture and sale of such articles containing zinc oxide could be prohibited.

SCENERY IN COLORADO.

Very few people were aware before the publication of the report on the Geographical and Geological Survey of Colorado, by Hayden, of the beauty of the natural scenery in so many places in Colorado. These reports are so well written, and the localities all described with so much detail, and with such excellent engravings, that it is almost as good as a trip to the country, to read the reports.

The characteristic feature of the Mount of the Holy Cross, as shown in the engraving, is the vertical face, nearly 2,000 feet on the side, with a cross of snow, which may be seen at a distance of 50 or 80 miles, from other mountain peaks. This is formed by a vertical fissure about 1,500 feet high, with a set of horizontal steps, produced by the breaking down of the side of the mountain, on which the snow is lodged and remains more or less all the year. Late in the summer the cross is very much diminished in size, by the melting of the snow which has accumulated in the fissures.

JOY AND SORROW OF CHILDREN.—Children sweeten labor, but they make misadventures more bitter; they increase the joys of life, but they mitigate the remembrance of death.—*Lord Byron*.

certainly worth any one's while who is occasionally sleepless to give it a trial. In doing so they should breathe very quietly, rather deeply, and at long intervals, but not long enough to cause the least feeling of consciousness. In fine, they should imitate a person sleeping, and do it steadily for several minutes.

In no case should opiates or other drugs be resorted to for sleeplessness except under the direction of a physician. The other methods mentioned above may be safely tried by anybody; but if they fail, and the case becomes at all serious, medical advice should be promptly taken.

BLUE GLASS FOR WEAK EYES.—Noted oculists in Europe recommend either blue, bluish-gray or smoke-colored glasses as a protection for weak eyes, against the unpleasant effects of red, orange and yellow light. On the same principle the trying reddish-yellow light of candles, lamps and gas on normal eyes as well as weak ones, can be pleasantly modified by the use of blue chimneys or globes, or at least of shades for the reflection of the light, colored a light ultramarine blue. A near approach to day-light is said to be produced by a petroleum lamp with a round wick and a light blue chimney of twice the usual length, the latter causing so great a draft that the petroleum burns with barely a pure white flame.

BEING DISTINCTLY BEFORE YOUR OWN MIND the well-known fact that children delight as much in exercising their minds as their limbs, provided only that which is presented to them be suited to their capacities and adapted to their strength.—*Dewey's Principles of Teaching*.