

## SCIENTIFIC MISCELLANY.

A mastodon-like animal from the Eocene of the Libyan Desert is regarded by Dr. Andrews as the probable ancestor of the mammoth and elephant.

Ether, converted into vapor much more readily than water, is stated to have failed in engines from the lack of a suitable generator. M. Malapert claims a successful generator, and that one, weighing 265 pounds, can supply a 100 horse-power engine.

About one-fifth of the earth's land surface was known in 1800, states G. H. Grosvenor, and in 1900 only one-eleventh was unexplored. The "Dark Continent" of the twentieth century is the land buried under the oceans, an area thrice as great as the exposed land surface.

The advantage of a photographic flash-light that can be timed is claimed for a new cartridge made at Offenbach, Germany, which consists of a celluloid capsule filled with combustible powder and provided with a fuse. The flash varies with the size of the cartridge. Analysis shows that the powder, which burns quietly and with little smoke, contains 12 per cent of aluminum, 13.5 of magnesium,  $1\frac{1}{2}$  of red phosphorus, and 73 of strontium nitrate.

The areca-nut, or betel-nut, is the fruit of an East Indian palm. It is chewed in great quantities by the Asiatics, who regard it as an aid to digestion, and in pharmacy it is used as a vermicide. The present scarcity of the nuts seems to be due to a mysterious plague that has swept the plantations of Lower Bengal. Dense groves of thousands of trees have become vegetable cemeteries in a few months, and no parasites or other adequate cause can be discovered. The only explanation offered by Dr. George Watt, after investigation, is "degeneration of tissue," to be remedied by care in cultivation.

Nickel and aluminum have been difficult to alloy on account of the difference between their melting points, which are  $1450^{\circ}$  and  $600^{\circ}$  respectively. A Berlin manufacturer has overcome the difficulty by a special furnace, and in one case by adding copper, with an intermediate melting point. "Nickel-aluminum" contains nickel and copper, with aluminum in greatest proportion, the specific gravity being 2.86. It can be rolled into sheets, and has a tensile strength of  $16\frac{1}{2}$  tons per square inch. "Minckin" seems to contain more nickel than the 26 per cent of "new silver," and is gaining favor for its resistance to corrosion by weak acids, etc.

The idea that drowning persons take much water into the lungs has seemed

to be unquestioned. But it has been long opposed by Prof. W. K. Whitford, who in forty years has successfully treated many patients apparently dead from drowning, and who now asserts, as the result of many examinations, that practically no water enters the lungs. The mistaken view has caused the waste of much valuable time. He has found heat—energetically and persistently applied—to be the most important agent in resuscitation, and with this, aided by artificial respiration and stimulation, he has restored patients that have been submerged an hour.

Tea-seed, a by-product of an important industry, is awaiting profitable use. It was placed upon the market in London in 1885, under the name of "tanne," but nobody knew what to do with it, and there was no sale. An agent of the Indian Tea Association has now made a report upon the oil and cake. Tea-seed oil is clear, light and yellow, with a more or less acrid taste, and is unsafe as an edible oil on account of its saponin. Tea-seed oil-cake is by the same constituent made dangerous food for cattle, while as a manure it is much inferior to other oil-seed cakes. It is suggested that the oil might prove useful as lamp-oil, and that the cake might serve as an insecticide.

The nebula that seems to be spreading out from the new star in Perseus not only changes at a perceptible rate, but has bright spots on its outer edge that appear to have passed over a minute of arc in six weeks, implying the tremendous velocity of 2,000 miles per second, if the nebula is assumed to be at the distance of the nearest known star. It is suggested as more probable that the new star and its nebula are nearer, or that a flash of light may have been sent through the comparatively dark gas without actual motion of the gas itself. The greatest apparent motion of a star in space is  $8\frac{3}{4}$  seconds of arc in a year, which is that of a small star in the southern hemisphere. The famous Groombridge 1830, with a proper motion of 7 seconds a year, taking it across a space equal to the diameter of the moon in 250 years, has a parallax of about .14 of a second, and is calculated to travel at a speed of 200 miles a second. The projectile of a modern cannon has a maximum velocity of a little more than one-half mile per second.

The species of carnivorous plants now known, meaning those that entrap and absorb small animal forms, reach the surprising total of about 400, belonging to 16 or 18 genera. These make up the natural orders, *Sarraceniaceae*, *Nepenthaceae*, *Droseraceae*, *Cephalotaceae*, and *Lentibulariaceae*, and there are two species in other orders that are suspected of being insectivorous. Mr. A. H.

Ware, an English biologist, divides these plants into three groups. Plants of the first group have neither motile nor digestive organs, but have traps, with open orifices for the entrance of small animals, that close on any attempt at exit, and there are some pitcher plants with bright colors or honey to attract insects. The second group has digestive organs, but no motile entrapping apparatus. It includes the true pitcher plants of the genus *Nepenthes*, and what are sometimes called the "lime-twig" plants, which have sticky tentacles to which the insects adhere. The third group has both motile and digestive organs. The motile organ has slight irritability in some species, but in others it closes on the prey like a spring trap, forming a chamber in which digestion is carried on. Venus' fly-trap (*Dionaea muscipula*) is an example of the highest development. When its "trigger-hairs" are touched the two halves of the leaf close almost instantly, and it is a curious fact that a single touch of a passing insect has no effect, a repeated touch or momentary contact acting quickly.

## A FIGURE OF SPEECH.

The Shenandoah Sentinel inquires politely why Nebraska City girls should be likened to greyhounds; whether because they are long and lean, or because they are fast?

It sticks in our mind that the expression in question was a biblical quotation, though it would not be in place for Nebraska City to tell Shenandoah what is or is not in the Bible.

But the comparison of a young girl, a school girl, such as we were speaking of, to a greyhound, is not an unhappy simile, it seems to us. A humorist could easily point out that greyhounds are not only fast, but that their backbones stick out, their noses are long and their eyes mean, and that they have no sense. These are side issues. But greyhounds are certainly tall, and the writer likes very much to see children, girls especially, growing tall; taller than their parents. It promises well for the Nebraskans of the future. And there is a lithe and muscular leanness about these dogs which is the perfection of physical condition; a human being built on those lines is capable of great efforts and endurance. Of course this lean and long-legged age in girls is transitory and brief; but it is very nice while it lasts. A girl is never a pleasanter companion, for an older person, in her life, than when she is convinced she is too homely and awkward to live. This is just before she makes up her mind that she is the beauty of the world. That is often a permanent delusion, and we get used to it; but in the year or two that precede it, a girl is very pleasant to have around. Her soul is pretty just then if her body isn't.