

fifteen degrees below that of the circumambient air; and while these are drenched with dew, pieces of polished metal, smooth stones, and other imperfect radiators, are barely moistened, and are nearly as warm as the air above them.' Indeed," says another popular writer, every shrub and herb, every leaf and blade of grass, possesses, according to its kind, a different power of radiation, so that each condenses as much dew as is necessary for its own individual and peculiar exigencies; thus, not even a single dewdrop seems to have been formed by the rude hand of chance; but it is adjusted by the balance of Infinite wisdom to accomplish a definite and benevolent end."

So much for dew: a word upon the old and popular rule of gathering it. We are not prepared to say at what time the application of May-dew as a cosmetic for improving the complexion of the fair sex took its rise. It was, however, somewhere within the limit of 'hoary antiquity.' A writer in the 'Spectator,' 150 years ago, says, 'there is not a maiden gentlewoman of any good family in South Britain, who has not heard of the virtues of May dew;' and, if we recollect aright, Shakspeare, or some of the older poets, has a similar allusion. Many people go about to ridicule all such notions as the fruits of ignorance and superstitious delusion. We are of a different opinion; and believe that there are none of our popular 'fruits,' however senseless they may appear externally, but what carry something useful and instructive under them. Thus, in the instance before us, to render May-dew effectual to the beautifying of the female countenance, certain conditions were necessary to be attended to—it had to be gathered by the individual who wished to profit by it; it had to be gathered, too, in open rural situations, for there only was it to be found; and it had to be gathered by the sunrise, for therein consisted its principal virtue. If we put these conditions together, what do they make up? Why, the sum total of early rising, pure air, exercise, and recreation; things which we can assure our fair readers are better adapted to improve both the health and the complexion than all the kalydors and cold creams which quackery can produce. And this is the true moral and meaning which is hidden under the allegory of May-dew.—*Gardener's Journal*.

**THE NATURAL WARFARE OF ANIMALS.**—This universal war of species is an established law of Nature, and, however startling it may appear at first sight, is advantageous on the whole. Violent deaths are as necessary to the proper regulation of Nature as natural deaths. The latter preserve the perpetual bloom of youth over the face of the earth; the former assist in maintaining the correct balance among the numbers of different species, and in restraining their exuberance within the proper limits. In these wars of the animals, Nature has provided that each creature should meet its death in the easiest possible manner. There is a certain spot in the spinal marrow where the two ascending main nerves that form the great brain cross one another, and if this spot be injured, death is the immediate consequence. This fact is well known to huntsmen and butchers. The latter plunges his knife into the neck of the ox at the exact spot, the animal immediately drops, and ceases to live after a few convulsions. On the same principle, the huntsman cuts through the neck of his game. The carnivorous animals always seize their prey by the neck, and bite through this part. In the same manner the hound kills the hare, and the bird of prey its quarry. The polecat also destroys its prey at a single spring. Dr. Gall locked up a pole-cat for some time, during which he fed it on bones till its teeth were blunted. While in this state, it was unable to kill the rabbits placed in its

kennel with the same despatch as formerly; but when they had again grown sharp, Gall observed that, on the very first leap it made on the rabbit, it cut the little animal's neck on that very spot with a sharp fang, and instantaneous death ensued. He observed the same thing at a hawkling party. As soon as the hawk had reached the hare, it would immediately cut through that part of her neck with its bill. It is the organization of the carnivora—the procession of teeth, of claws, of short and narrow intestines; that imposes the office of Nature's executioners upon these animals by an imperative necessity. The sharp teeth of the leopard or panther might attempt in vain to grind plants; and even when we compel these animals to swallow bread and other purely vegetable substances, the gastric juice of their stomach is unable to dissolve them. On the contrary, the lamb and the light gazelle would refuse animal food with disgust. Their teeth are not formed for tearing, and their entire economy is adapted to a vegetable diet. It is thus that we find, in the organization of the animal, the reasons for all its actions.

**GUTTA PERCHA** is the sap of the *percha* (pertsha; tree, which grows in abundance in Borneo, and other of the islands of the Eastern Archipelago; and is obtained in the same manner as caoutchouc, or India rubber, by incisions made in the bark, from which the sap runs freely, and afterwards hardens. It is rapidly and extensively coming into use for articles of domestic and manufacturing utility, as well as in fine arts and for scientific purposes. But the principal use of gutta percha to our readers, at present, will be its usefulness as soles for boots and shoes, for which purpose it forms a valuable material, being entirely impervious to damp. In durability and cheapness gutta percha surpasses leather soles, while it has this very important advantage which that material does not fully possess, namely, that of preserving the feet entirely free from damp, and in a great degree from cold also; no matter how wet the weather may be. If the boots be protected by a gutta percha sole, no moisture can penetrate, while through a leather sole, however thick, some dampness will find its way. By the complete exclusion of damp, one cause of colds and coughs is prevented, and the concomitant expense of a doctor or medicine sometimes avoided. For wear and tear through all seasons, gutta percha is capital. We have known boots soled with it in constant every-day wear during winter and summer, with every probability of continuing in good condition for a much longer period; indeed, there appears to be no reason why boots and shoes should not henceforth be made to last for an unlimited time, for as the welts are preserved from the action of moisture by the gutta percha, they do not so readily decay, and as long as the upper leather remains good, they may be repeatedly repaired with gutta percha on the soles.

#### SCIENCE.

**ARTIFICIAL COLD.**—A very intense degree of cold may be produced by mixing together equal parts of muriate of ammonia and saltpetre, both finely powdered, in about six parts of water, even in the hottest day; this is the method generally preferred to cool wine, and may be economically employed in many chemical experiments to produce artificial cold; the theory of this process is, that a solid, in assuming a liquid state, abstracts a large portion of the caloric from the fluid in which it is immersed.

**INDUSTRY.**—"There is more pleasure in eating an hour than in yawning a century."