

contribute to give to the soil a temperature higher than that of the air above it; were some limit not indeed placed to the operation of this cause, the moisture of the soil might everywhere be transferred to the atmosphere. That limit is found in the fact, that, although black be the colour most favourable to the *absorption* of heat, it is also that most favourable to its radiation; and since, during the whole day, whilst the earth is in the act of receiving heat from the sun, it is also in the act of radiating it, in some degree unknown to us, into space, and since this process of radiation is going on also all night, it follows that the radiating properties of a body may have a greater influence to keep down its temperature than its absorbing properties have to raise it; and thus we may understand why vegetable mould, which is commonly the darkest, is at the same time the most humid; and why the gardener white-washes the wall against which his fruit-trees are nailed; not that reflecting the heat, it may be cooled, but that, radiating it ill, it may remain hot,—why regions of sand are parched with heat, and why the Almighty, in his wisdom and goodness, has given to the animals of cold regions a white covering, and one of a darker colour to those within the tropics; man himself being, in this respect, a memorable example.

Thus, too, that is obviously no visionary analogy which the covering of animals presents in arctic regions, to the covering of the earth's surface; in winter a white mantle of snow is thrown down upon it, and bodies of animals are enveloped in thick white furs. When summer comes, under the form of a single day, of from five to six months' duration, and the clothing of animals is made thinner and lighter, its colour also is changed, and the covering of snow is withdrawn from the earth.

"For are we not all Iliis, without whose care  
Vouchsafed, no sparrow falleth to the ground,  
Who gives his Angels wings to speed through air,  
And rolls the planets through the blue profound."  
Wordsworth.

—Moseley's *Astro-Theology*.

**THE DISCOVERY OF HERCULEANEUM.**—In noticing the wells of ancient Italy, we may refer to a circumstance, which although trivial in itself, led to the most surprising discovery that has ever taken place on this globe, and one which in the interest it has excited is unexampled. In the early part of the eighteenth century, 1711, an Italian peasant while digging a well near his cottage, found some fragments of colored marble. These attracting attention, led to further excavation, when a statue of Hercules was disinterred, and shortly afterwards a mutilated one of Cleopatra.—These specimens of ancient art were found at a considerable depth below the surface, and in a place which subsequently proved to be a temple situated in the centre of the ancient City of Herculeaneum! This city was overwhelmed with ashes and lava, during an eruption of Vesuvius, A. D. 79, being the same in which the elder Pliny perished, who was suffocated with sulphurous vapors, like Lot's wife in a similar calamity. Herculeaneum therefore had been buried 1630 years! and while every memorial of it was lost, and even the site unknown, it was thus suddenly, by a resurrection, then unparalleled in the annals of the world, brought again to light; and streets, temples, houses, statues, paintings, jewelry, professional implements, kitchen utensils, and other articles connected with ancient domestic life, were to be seen arranged, as when their

owners were actively moving among them. Even the skeletons of some of the inhabitants were found; one, near the threshold of his door, with a bag of money in his hand, and apparently in the act of escaping.

The light which this important discovery reflected upon numerous subjects connected with the ancients, has greatly eclipsed all previous sources of information; and as regards some of the arts of the Romans, the information thus obtained may be considered almost as full and satisfactory as if one of their mechanics had risen from the dead and described them.

Among the early discoveries made in this City of Hercules, (it having been founded by, or in honor of him, 1250, B. C.) not the least interesting is one of its public wells; which, having been covered by an arch, and surrounded by a curb, the ashes were excluded. This well was found in a high state of preservation—it still contains excellent water, and is in the same condition as when the last females retired from it, bearing vases of its water to their dwellings, and probably on the evening that preceded the calamity which drove them from it for ever.—*Ewbank's Hydraulics*.

**OUR WONDROUS ATMOSPHERE.**—The atmosphere rises above us with its cathedral dome, arching towards the heavens, of which it is the most familiar synonyme and symbol. It floats around us like that grand object which the apostle John saw in his vision, "a sea of glass like unto crystal." So massive is it, that when it begins to stir it tosses about great ships like playthings, and sweeps cities and forests like snowflakes to destruction before it. And yet it is so mobile, that we have lived years in it before we can be persuaded that it exists at all, and the great bulk of mankind never realize the truth that they are bathed in an ocean of air. Its weight is so enormous, that iron shivers before it like glass; yet a soap-bell sails through it with impunity, and the tiniest insect waves it aside with its wing. It ministers lavishly to all the senses. We touch it not but it touches us. Its warm south winds bring back colour to the pale face of the invalid; its cool west winds refresh the feverish brow, and make the blood mantle in our cheeks; even its north blasts brace into new vigor the hardiest children of our rugged clime. The eye is indebted to it for all the magnificence of sunrise, the full brightness of mid-day, the chastened radiance of the gloaming, and the clouds that cradle near the setting sun. But for it, the rainbow would want its "triumphal arch," and the winds would not send their fleecy messengers on errands round the heavens. The cold ether would not shed its snow-feathers on the earth, nor would drops of dew gather on the flowers. The kindly rain would never fall, nor hail-storm nor fog diversify the face of the sky. Our naked globe would turn its tanned and unshaded forehead to the sun, and one dreary, monotonous blaze of light and heat dazzle and burn up all things. Were there no atmosphere, the evening sun would be in a moment set, and, without warning, plunge the earth in darkness. But the air keeps in her hand a sheaf of his rays, and lets them slide but slowly through her fingers; so that the shadows of evening gather by degrees, and the flowers have time to bow their heads, and each creature space to find a place of repose.—*Quarterly Review*.

**VENTILATION.**—In airing a room, both the upper and the lower parts of the window should be opened, as the bad and heated air, from its lightness, will pass out at the top, and the fresh, cool air come in at the bottom.

Prosperity is no just scale; adversity is the only true balance to weigh friends.