

### CORAL FORMATIONS.

## ATOLL OR CORAL ISLAND

corals, calcinodendrata shells, reticularia and other living creatures," says a writer on this subject, "deposit not only the salts of lime extracted from the ocean, but their own dead bodies, to form the hard substance of the corals."

The coral insect assumes curious and elegant forms, and the coral it produces is a limy or calcareous deposit which is fixed upon a rocky base. As years go on these accretions become greater and greater, and at length rise above the water.

The "atolls," or circular coral reefs with an opening at one side, have been described by Professor Darwin. "Who," asks the great naturalist, "could not be struck with wonder and admiration on catching sight for the first time of this vast ring of coral rock, often many miles in diameter? Sometimes a low green island is seen beyond it, with a shore of dazzling whiteness. Outside is the foaming surf of the ocean, and within it a broad expanse of tranquil water of pale green color and exquisite purity."

These "atolls" mark the situation of sunken islands, and the extension of them and the barrier reefs would seem to indicate a slow but decided sinking of the bottom of the Indian and other oceans, but the "reefs" tell us that the land to which they are attached is not becoming depressed and may have become elevated. We must therefore conclude that a continual rising and depression of the land is taking place in various oceans.

**Effect of Air and Ventilation on Coal.**

The effect of air and ventilation on coal has been investigated by an English chemist who reports the following results:

First—"The danger of spontaneous firing of coal in large lumps is very slight, but it is much greater with smaller coal and greater still with dust, the increase of danger being due to the larger extent of surface exposed to the air in proportion to the mass of the coal."

Second—"Air dried coal which contains more than 3 per cent of moisture is dangerous, but if it contains less the danger diminishes, the moisture contained being a measure of the absorbent power of the coal for water, and the more absorbent the coal the more dangerous."

Third—"The danger is somewhat increased by the presence of pyrites in large quantity."

Fourth—"Newly won coals should be shielded from the air as much as possible, to prevent the chance of rapid heating, and for the same reason it is best not to stack it in large piles, but in small ones."

Fifth—"All external sources of heat, such as steam pipes, boilers and hot flues in the neighborhood of the coal, and very greatly to the risk, spontaneous heating becoming vastly more rapid when it is assisted from without. Of course these conclusions have special relation to coal that is stored or shipped in cargoes."

**Winter Bricklaying.**

Now the question comes up as to laying brick in winter. It always does about this time of year. People who are building houses, stores, factories, and what not, bring up the question as to what effect freezing may have on bricklaying. The *Industrial World* says this question has been definitely settled, experimentally, practically, scientifically and otherwise, and there can be no doubt but that brickwork, substantial in character and solid, can be done in cold winter weather.

The principal thing necessary is to keep the brick dry, and to see that the mortar does not freeze before the brick is placed on top of it. Various devices are in use for keeping the mortar in proper condition (the mortar boards—namely, by using sheet iron boards with lumps under them, and other similarly ingeniously devised arrangements. Arrangements of this kind are only necessary under the most adverse conditions, when the weather is exceedingly cold. Ordinarily the mortar, when laid from the bed to the mortar boards, placed on the walls, the bricks on the top of the mortar, without any injury.

**The Race Horse of the Desert.**

Incredible as the statement seems, it is said upon good authority that the dromedary, which is to the Arabian camel as the horse is to the elephant, can gallop over its paws, can, after proper training, trot at the rate of nine miles an hour, and that this pace can be maintained for 24 hours a stretch without a sign of flagging or single stop for a mouthful of food or water. Then, if given a ball of paste made of barley meal and dates and a drink of camel's milk, it can gallop at the same rate for another day again set forth and keep on for another hours with unslackened speed. A sabote which is said to be the swiftest breed the dromedaries, "is good for 630 miles travel in five days." Thus it will be seen that the dromedary has the speed of a spotted horse, with far greater capacity for endurance. Writes a *Popular Science* Correspondent:

**Do Ants Talk?**

This is a question which is agitating the mind of a writer in *The Natural History Magazine*. The antediluvian creature, the little black ants moving apparently new quarters. Every time two met they put their heads together as though they were chatting. To investigate the matter he killed one, and the eyewitnesses of the murder hastened away and laid the heads together with every ant they met, and the latter immediately turned back a head.

**The Extirmination of the Alligator.**

The alligator of Florida is disappearing. He grows slowly, but he grows as long as he lives, and a 12-foot one is said to be 75 years of age. Over 2,500,000, according to an estimate from Florida, have been killed in the last dozen years.

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