

incipient structures. Where we see the need we see the structure to meet it already perfect. We see also the combination of homology with teleology." "The change must be, for the most part, comparatively sudden, and therefore due to an implanted, internal force acting in pre-determined directions. On the theory of external accidental forces, the preservation of homology is incomprehensible."

THERE is more in a heap of coal than most persons are aware of. Besides gas, a ton of gas coal will yield 1,500 lbs. of coke, 20 gallons of ammonia water, and 140 lbs. of coal tar. Destructive distillation of coal tar gives 69.6 lbs. of pitch, 17 lbs. creosote, 14 lbs. of heavy oils, 9.5 lbs. of naphtha yellow, 6.3 lbs. of naphthaline, 4.75 lbs. of naphthol, 2.25 lbs. of alizarin, 2.4 lbs. of solvent naphtha, 1.5 lb. of phenol, 1.2 lb. of aurine, 1.1 lb. of aniline, 0.77 lb. of toluidine, 0.46 lb. of anthracine, and 0.9 lb. of toluene. From the last named substance is obtained the new product known as saccharine, which is said to be 230 times as sweet as the best cane sugar.

LEFT-HANDEDNESS.—In the December number of the *Science* we find the following interesting facts concerning left-handedness. No purely left-handed race has ever been discovered, although there seems to be a difference in different tribes. Seventy per cent. of the inhabitants of the Pendjab use the left hand by preference, and the greater number of the Hottentots and Bushmen of South Africa do the same. Dr. Marro, as a result of his study of criminals, has found that from fourteen to twenty-two per cent. of those who have been convicted of crime were left-handed, while the highest ratio among people of all classes was only nine per cent.

A NEW SUGAR.—A new sweetening agent called saccharine, discovered about 1878, may before long considerably affect the sugar industry. It is made from coal-tar, the source of so many chemical wonders. One part of saccharine imparts a distinctly sweet taste to one thousand parts of water. It is