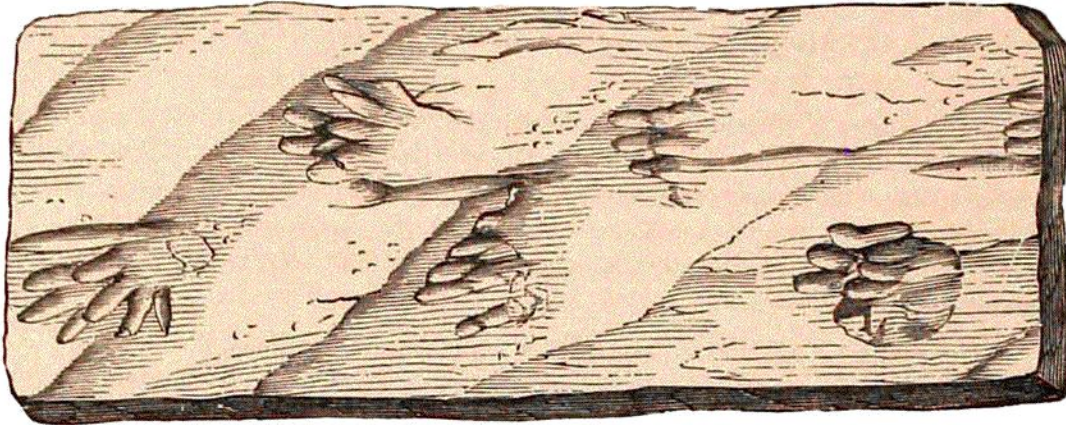


eight inches. There is also a distinct impression of a tail, an inch or more wide. The slab is crossed by a few distinct ripple-marks (eight or nine inches apart), which are partially obliterated by the tread. The whole surface, including the footprints, is covered throughout with rain-drop impressions.

1023.



Tracks of *Sauropus primævus* ($\times \frac{1}{2}$). I. Lea.

We thus learn that in the region about Pottsville a mud-flat was left by the retreating waters, perhaps those of an ebbing tide, covered with ripple-marks; that the ripples were still fresh when a large Amphibian crossed the flat; that a brief shower of rain followed, dotting with its drops the half-dried mud; that the waters again flowed over the flat, making new deposits of detritus, and so buried the records. The records were opened and deciphered in 1849 by Dr. Lea.

Characteristic Species.

PLANTS. — In the Subcarboniferous of Pennsylvania occur, according to Lesquereux, *Archæopteris obtusa* Lx., and *A. minor* Lx. (both found in the Chemung of the Devonian), *A. Bockschiana* Göpp.; remains of *Lepidodendron*, as *L. corrugatum* Dn., and *Stigmaria minuta* Lx.; in Illinois, in the Chester group, the Ferns *Megaphyton protuberans* Lx., *Caulopteris Wortheni* Lx., *Alethopteris Helenæ* Lx., *Neuropteris capitata* Lx., *Pseudoplectopteris anceps* Lx., *Rhacophyllum flabellatum* St., *Sphenopteris cristata* St., *Megalopteris fasciculata* Lx.; also *Lepidodendron costatum* Lx., *L. turbinatum* Lx., *L. obscurum* Lx., *L. Veltheimanum* St., *L. Wortheni* Lx., *Stigmaria anabathra* Corda, *S. minor* Göpp., *S. umbonata* Lx., *Knorria imbricata* St., *Calamites Suckovi* Bngt., *Asterophyllites equisetiformis* Schl., and others.

In the Chester group of Indiana, according to Collett, occur *Stigmaria*, *Lepidodendron aculeatum* St., *L. diplostegioides* Lx., *L. forulatum* Lx., *Lepidostrobus*, *Knorria*, *Neuropteris biformis*, *Alethopteris*, etc. One specimen of *Lepidodendron* had portions of the leaves attached to the stem, which were 12 to 14 inches long, though only from one eighth to one fourth of an inch in width.

In the Subcarboniferous of Nova Scotia and New Brunswick, Dawson has made out the following species: **FERNS** — *Cyclopteris Acadica* Dn., *Cardiopteris*, *Hymenophyllites*; **LYCOPODS** — *Ptilophyton plumula* Dn., the last of the genus, *Lepidodendron corrugatum* Dn. (near *L. Veltheimanum* of Europe), *L. tetragonum* St., *L. obovatum* St., *L. dichoto-*