

For Reports on American coal plants with figures, see *Indiana Geol. Rep.* for 1883, by Lesquereux; *Illinois Geol. Rep.*, vols. ii. and iv., by Lesquereux; *Ohio Pal.*, vols. i. and ii., by Newberry; *Pennsylvania Geol. Rep.*, No. P, by Lesquereux, 1st vol. text, 2d vol. plates, 3d vol. text and plates, 1880-84.

On the Permian flora, see Fontaine and White, *Pa. Geol. Rep.*, No. PP, 1880.

ANIMALS. — 1. **Rhizopods.** — Fig. 1069, *Fusulina cylindrica* of Fisher, is a Russian species, to which the American specimens in part are referred. *F. elongata* Shumard, *F. robusta*, *F. ventricosa*, and *F. gracilis* of Meek, are supposed to be probably varieties of it. *Loftusia Columbiana* G. M. Dawson, *Q. J. G. S.*, xxxv., 74. *Dentalina priscilla* Dn., from Nova Scotia, consists of a single series of cells.

2. **Actinozoans.** — *Syringopora multattenuata* McCh., *Campophyllum torquium* Ow., etc.

3. **Echinoderms.** — *Crinoids*, of the genera *Poteriocrinus*, *Actinocrinus*, *Cyathocrinus*, *Zeacrinus*, *Delocrinus*, *Scaphiocrinus*, *Eupachyocrinus*, *Agassizocrinus*, *Acrocrinus*, etc.

4. **Molluscoids.** — Fig. 1072, *Spirifer cameratus* Mort., Lower and Upper Coal-measures, in Ohio, Ky., Ind., Ill., Mo., Utah, etc.; 1070, *Productus Nebrascensis* Ow., Ill., Kan., N. Mex.; 1071, *Chonetes mesolobus* N. & P., a common species; 1073, *Seminula subtilita* Hall, common in the Coal-measures; *Spiriferina Kentuckensis* Upper Coal-measures, Ill., Ky., Mo., and near Pecos village, N. Mex.; *Spirifer lineatus* Phill., *Meekella striatocostata* Cox, Ill., Mo., Iowa; *Orthis Pecos* Marcou; *Dielasma (Terrebratula) bovidens* Mort.; *Derbya (Streptorhynchus) crassa* M. & H.; *Waldheimia ? (Cryptacanthia) compacta* W. & St. John. The following first appeared in the Subcarboniferous, and are continued into the Carboniferous: *Productus punctatus* (Fig. 1013, page 642), *P. cora*, *P. muricatus*, *P. semireticulatus* (Fig. 423, page 427), *Spirifer lineatus*.

5. **Mollusks.** — *Lamellibranchs.* — Fig. 1074, *Macrodon carbonarius* M., Upper Coal-measures, Ky.; 1075, *Allorisma subcuneata* M. & H., Kan.; *Aviculopecten rectilaterarius* Cox, Upper and Lower, *Avicula (Gervillia) longa* M., *Nuculana bellistriata* M., *Cardiomorpha Missouriensis* Shum., *Solenomya radiata* M. & W., *Myalina perattenuata* M. & H., *M. recurvirostris* M. & W., *Schizodus amplus* M. & W., all from Ill. *Entolium avicula* Swallow, Kan.; *Pinna peracuta* Shum., Mo., Kan.; *Lima retifera* Shum., Kan.; *Mytilus [Modiola (?)] Shawneensis* Shum., Kan.; *Monodon*, species of *Monopteria*, *Pseudomonotis*, *Placunopsis*, etc.; *Modiola Wyomingensis* Lea, Wyoming, Pa.; *Anthracomya (Naiadites) carbonaria* Dn., N. Scotia; *A. elongata* Dn., N. Scotia; *A. lewis* Dn., N. Scotia.

6. **Gastropods.** — Fig. 1077, *Bellerophon carbonarius* Cox (often referred to *B. Uriei* Fleming), Upper Coal, Ky.; 1076, *Pleurotomaria tabulata* Con.; 1078, *P. sphaerulata* Con.; *P. carbonaria* N. & P., *P. Grayvillensis* N. & P.; 1079, *Macrocheilus (?) fusiformis* H., *M. Newberryi* Stevens, *M. ventricosus* H., Iowa, *Murchisonia minima* Swallow, Mo.; 1080, *Dentalium sublæve* H., *D. Meekianum* Gein., Neb. and Ill.; *Straparollus pernodosus* M. & W., Ill.; *Chiton carbonarius* Stevens, *Straparollus subrugosus* M. & W., Ill., *Loxonema semicostatum* M., *Aclis robusta* Stevens, *Streptaxis Whitfieldi* M., all from Illinois; *Naticopsis*. Also the *Land-snails* (*Helix* family), Fig. 1081, *Pupa vetusta* Dn., half an inch long, Coal-measures, Joggins, N. Scotia; 1082, *Pupa Vermilionensis* Bradley, Vermilion County, Ill., in a concretionary limestone; 1083, *Dawsonella Meeki* Bradley, same locality.

For Cephalopods of the Carboniferous, see papers by Shumard, McChesney, Swallow, Hall, Hall and Whitfield, and the Geological Reports of Illinois (Meek and Worthen), Missouri (Swallow), Texas (Hyatt).

Some of the Nautiloids of the Carboniferous, part of them new species, as named and figured by Hyatt in the second Annual Texas Geological Report are: *Temnochilus conchiferum*, Tex.; *T. Forbesanum*, Tex. (*Nautilus F.* of McChesney); *T. latum*, Meek and Worthen, Kan.; *T. depressum*, Kan.; *T. crassum*, Kan.; *Metacoceras cavatiforme*, Kansas