

III. LIST OF FOSSILS OF THE NIAGARA GROUP, OCCURRING IN THE WISCONSIN,
ILLINOIS AND IOWA LIMESTONES.

FORAMINIFERA.

- Receptaculites hemisphaericus, HALL. Geolog. Report of Wisconsin. 1861.
R. infundibulus, HALL. Id. pa. = *Ischadites tessellatus*, WINCH. & MAR.†

ZOÖPHYTA.

- Diplophyllum caespitosum, HALL. Pal. N. Y., II, p. 116, pl. 33, fig. 1.
Favosites favosa, GOLD. Pal. N. Y., II, p. 126, pl. 34 bis., fig. 5.
F. *gothlandica*? = F. niagarensis, HALL.
F. niagarensis, HALL. Pal. N. Y., II, p. 125, pl. 34 bis., fig. 4 a, b.
F. striata, SAY, in Amer. Jour. Sci., VII., p. 381 = ? F. favosa, GOLD.
F. venusta (HALL), WINCH. & MAR.
Halysites catenulatus, LINN.
H. macrostylis, HALL. Pal. N. Y., II, p. 135, pl. 362, fig. 2.
Heliolites pyriformis, GUETT. Pal. N. Y., II, p. 133, pl. 36 A, fig. 1.
*Petraia calicula (HALL) = *Streptelasma calicula*, HALL. Pal. N. Y., II, p. 111, pl. 32, fig. 1.
Stromatopora concentrica, GOLDF.
*Zaphrentis turbinatum (HALL) = *Polydilasma turbinatum*, HALL. Pal. N. Y., II, p. 112.

BRYOZOA.

- *Cladopora fibrosa, HALL. Pal. N. Y., II, p. 139.
*C. lichenoides, WINCH. & MAR.
C. reticulata, HALL. Pal. N. Y., II, p. 141, pl. 39, fig. 3.
*C. seriata, HALL. Pal. N. Y., II, p. 137.
*C. verticillata, WINCH. & MAR.
Fenestella elegans, HALL. Pal. N. Y., II, p. 164.
*Lichenalia concentrica, HALL. Identified by WINCH. & MAR.
Polypora incepta, HALL. Pal. N. Y., II, p. 167.
*Stictopora punctipora, HALL. Identified by WINCH. & MAR.

ECHINODERMATA.

- Actinocrinus (Saccocrinus) semiradiatus, HALL.
A. (Saccocrinus) whitfieldi, HALL, = *Actinocrinus christyi*, HALL.
Apicocystites imago, HALL.
Caryocrinis ornatus, SAY. (Pl. xi, fig. 17 of this Report.)
Crinocystites chrysalis, HALL.
Cyathocrinus cora, HALL.
C. pusillus, HALL, = *Lecanocrinus pusillus*, WINCH. & MAR.
C. waukoma, HALL.
Echinocystites nodosus, HALL.
Eucalyptocrinus caelatus, HALL. Pal. N. Y., II, p. 210, pl. 47, fig. 4.
*E. chicagoensis, WINCH. & MAR.
E. cornutus, HALL.
E. cornutus var. excavatus, HALL.
E. crassus, HALL.
Eucalyptocrinus obconicus, HALL.
E. ornatus, HALL.

*Species which have not come under the observation of the writer.

† In the *Memoirs of the Boston Society of Natural History*, vol. i, 1865; as also the subsequent citations of same authors.

- Glyptaster occidentalis, HALL.
 G. pentangularis, HALL.
 Glyptocrinus armosus (M'CHESNEY), = *G. siphonatus*, HALL.
 *G. carleyi, HALL. Trans. Alb. Ins., IV, p. 203. Identified by WINCH. & MAR.
 G. nobilis, HALL.
 Gomphocystites clavus, HALL.
 G. glans, HALL.
 G. tenax, HALL.
 Hemicosmites subglobosus, HALL.
 Holycystites abnormis, HALL.
 H. alternatus, HALL.
 H. cylindricus, HALL.
 H. ovatus, HALL.
 H. scutellatus, HALL.
 H. sphaericus, WINCH. & MAR.
 H. winchelli, HALL.
 Ichthyocrinus subangularis, HALL, = *I. corbis*, WINCH. & MAR.
 Lampteroocrinus inflatus, HALL.
 Macrostylocrinus striatus, HALL.
Megistocrinus marcouanus, WINCH. & MAR., = *Actinocrinus* (*Saccoocrinus*) *christyi*, HALL.
M. infelix, WINCH. & MAR., = *M. marcouanus*, WINCH. & MAR.
M. necis, WINCH. & MAR. = *Actinocrinus* (*Saccoocrinus*) *christyi*, HALL.
 Melocrinus verneuli (TROOST), HALL, = *Actinocrinus obpyramidalis*, WINCH. & MAR.
 Rhodocrinus? rectus, HALL, = *Crinocystites? rectus*, HALL.
 R. (Lyriocrinus) sculptilis, HALL.
Turbinocrinus verneuli, TROOST, = *Melocrinus verneuli* (TROOST), HALL.

BRACHIOPODA.

- Atrypa nodostriata*, HALL. Pal. N. Y., II, p. 272.
 A. reticularis, LINN.
Meristina nitida (HALL), = *Atrypa nitida*, HALL. Pal. N. Y., II, p. 268.
Obolus conradi, HALL.
Orthis elegantula, DALMAN.
 O. flabellites, HALL.
 O. hybrida, SOWERBY.
Pentamerus arcuosus, † M'CHESNEY, = ? *P. ventricosus*, HALL.
 **P. crassoradius*, † M'CHESNEY. New Pal. Fossils, p. 87. 1861.
 P. multicosatus, HALL.
 P. oblongus, SOWERBY, Silurian System, = *P. bisinuatus*, M'CHESNEY.
 P. occidentalis, HALL. Pal. N. Y., II, p. 341.
 P. *trisinuatus*, M'CHESNEY. New Pal. Fossils, = *Athyris?* p. 86.
 P. (*Pentamerella*) *ventricosus*, HALL, = ? *P. chicagoensis*, WINCH. & MAR.
Rhynchonella cuneata, DALMAN.
 R. neglecta, HALL. Pal. N. Y., II, pp. 70, 274.
 **Spirifera crispa*, SOWERBY.
 S. eudora, HALL.
 S. gibbosa, HALL.
 S. meta, HALL.
 S. niagarensis, CONRAD; in Jour. Acad. Nat. Sci. Phil., VIII, p. 261.
 S. nobilis, BARRANDE, = *S. inconstans*, HALL; *S. rucinensis*, M'CHESNEY.
 S. plicatella var. radiata, SOWERBY.
 S. similior, WINCH. & MAR., = *Pentamerus*.
Strophomena rhomboidalis, WAHL.
Strophodonta profunda, HALL. Pal. N. Y., II, p. 61, = *Strophomena niagarensis*, W. & M.
 S. semifasciata, HALL; in Trans. Alb. Ins., IV, p. 210, = *Strophomena macra*, W. & M.
Trematospira matthewsoni, M'CHESNEY; New Pal. Fossils, p. 71. 1860.

† In a revision of his paper, Mr. M'CHESNEY has omitted these two species of *Pentamerus* as well as others of his previously described forms, without giving an y explanation for so doing.

LAMELLIBRANCHIATA.

- Ambonychia acutirostra, HALL, = *A. mytiloides*, HALL.
 A. aphea, HALL.
 Amphicœlia leidyi, HALL = ? *Ambonychia neglecta*, M'CHESNEY.
 Avicula emacerata, CONRAD. Pal. N. Y., II, p. 282.
 A. undata, HALL. Pal. N. Y., II, p. 283.
 Conocardium niagarensis, WINCH. & MAR.
 C. ornatum, WINCH. & MAR.
 Cypricardinia arata, HALL.
 Cypricardites ? quadrilatera, HALL.
 Edmondia nilesi, WINCH. & MAR., = ? *Modiolopsis nilesi*.
 Modiolopsis dictæus, HALL.
 M. rectus, HALL, = *Cleidophorus macchesneyanus*, WINCH. & MAR.
 M. subulatus, HALL.
 Palæocardia cordiiformis, HALL.
 Pterinea brisa, HALL.
 *P. cyrtodontoides, WINCH. & MAR.
 *P. revoluta, WINCH & MAR., = ? *P. striæcosta*, M'CHESNEY.
 P. volans, WINCH. & MAR.

GASTEROPODA.

- Bucania angustata, HALL.
 B. chicagoensis, M'CHESNEY, New Pal. Fossils, p. 69. 1860.
 B. crassolare, M'CHESNEY, New Pal. Fossils, p. 91. 1861.
 B. pervoluta, M'CHESNEY, New Pal. Fossils, p. 91. 1861.
 Cyclonema ? elevata, HALL.
 Eunema ? trilineata, HALL.
 *Holopea chicagoensis, WINCH. & MAR.
 H. guelphensis, BILLINGS.
 H. harmonia ? BILLINGS.
 *H. niagarensis, WINCH. & MAR.
 Loxonema leda, HALL.
 Murchisonia conradi, HALL.
 M. hercyna ? BILLINGS.
 M. laphami, HALL.
 **Platyceras campanulatum*, WINCH. & MAR., = *Platystoma niagarensis*, HALL.
 *P. niagarensis, HALL, = *Acroculia niagarensis*, HALL. Pal. N. Y., II, p. 288.
Platystoma niagarensis, HALL. Pal. N. Y., II, p. 287.
 Pleurotomaria axion, HALL.
 P. gonopleura, WINCH. & MAR.
 P. halei, HALL.
 P. halei, WINCH. & MAR., = *Trochonema (Cyclonema ?) pauper*, HALL.
 P. (Trochonema) hoyi, HALL.
 P. idia, HALL.
 *P. sigaretoides, WINCH. & MAR.
Porcellia senex, WINCH. & MAR., = *Platyceras*.
 Straparollus mopsus, HALL.
 Subulites ventricosus, HALL, = *S. brevis*, WINCH. & MAR.
 Tremanotus alpheus, HALL, = *Bellerophon (Bucania) perforatus*, WINCH. & MAR.
 Trochonema (Eunema) fatua, HALL.
 T. (Cyclonema ?) pauper, HALL.

CEPHALOPODA.

- Cyrtoceras brevicorne, HALL.
 C. dardanus, HALL.
 C. fosteri, HALL.
 C. hercules (WINCH. & MAR.) = *Lituites hercules*, WINCH. & MAR.

- Cyrtoceras laterale, HALL.
 C. lucillum, HALL.
 C. pusillum, HALL.
 C. rigidum, HALL.
 Gomphoceras scrinium, HALL, = *G. marcyæ*, WINCH. & MAR.
 G. septoris, HALL.
 Lituites marshii, HALL.
 Nautilus capax, HALL, = *Lituites capax*, HALL.
 N. occidentalis, HALL.
 Oncoceras orcas, HALL.
 Orthoceras abnorme, HALL.
 O. alienum, HALL.
 O. angulatum, HALL.
 O. annulatum, SOWERBY.
 *O. cameolare, M'CHESNEY. New Pal. Fossils. 1861.
 O. columnare, HALL, = *O. scammoni*, M'CHESNEY. New Pal. Fossils. 1861
 O. crebescens, HALL.
 *O. hoyi, M'CHESNEY. New Pal. Fossils. 1861.
 *O. laphami, M'CHESNEY. New Pal. Fossils. 1861.
 *O. lineolatum, M'CHESNEY. New Pal. Fossils. 1861.
 O. loxias, HALL.
 O. medullare, HALL.
 O. niagarensis, HALL.
 *O. woodworthii, M'CHESNEY, = *O. irregulare*, M'CHESNEY.
 Phragmoceras nestor, HALL.
 Trochoceras (*Gyroceras*) bannisteri, WINCH. & MAR.
 T. costatum, HALL.
 T. desplainense, M'CHESNEY. New Pal. Fossils. 1860.
 T. notum, HALL.

CRUSTACEA.

- Acidaspis danai, HALL.
 Bronteus acamas, HALL, = *Bronteus occasus*, WINCH. & MAR.
 Calymene blumenbachii var. niagarensis, HALL.
 Ceraurus niagarensis, HALL.
 Dalmania vigilans, HALL.
 Enerinurus nereus, HALL.
 Illænus armatus, HALL.
 I. cuniculus, HALL.
 I. imperator, HALL.
 I. insignis, HALL, = ? *I. worthenanus*, WINCH. & MAR.
 I. (*Bumastus*) ioxus, HALL.
 Lichas breviceps? HALL.
 *L. decipiens, WINCH. & MAR.
 L. obvius, HALL.
 L. pugnax, WINCH. & MAR.
 Sphærexochus romingeri, HALL.
 Leperditia fonticola, HALL.