# TOPICAL SYNOPSIS OF THE ARTICLES AND NOTES.

## [NOTE.—The references are to the pages.]

## A.—UNITED STATES FISH COMMISSION—GENERAL.

Steamers of the Fish Commission, 145, 153, 367.

Circulars, questions, inquiry, 397.

Statistics, bibliographies, directories, 1, 400.

#### B THE FISHERIES.

Fisheries, general views, 89, 249, 410, 444, 457.

Open sea fisheries, 180, 181, 237, 348, 410, 417, 457,

Atlantic shore fisheries, 80, 123, 129, 184, 187, 189, 191, 263, 431, 457

Fisheries of the Gulf of Mexico, 77, 135, 144, 289.

Fisheries of the Great Lakes, 218, 223.

River and inland fisheries, 8, 10, 13, 51, 287, 335, 351, 448, 462.

Scotch fisheries, 60, 64, 371, 431.

Japanese fisheries, 352.

Canadian fisheries, 457.

Australian fisheries, 53, 365.

Whale and fish oil, 213, 360, 382, 404, 431.

Cod and haddock fisheries and culture, 57, 89, 92, 95, 96, 123, 175, 191, 253, 402, 469, 411, 444, 460.

Mackerel fisheries, 49, 89, 92, 96, 142, 248, 249, 253, 401, 407, 411, 427, 435, 444, 447,

Menhaden fisheries, 47, 91, 187, 189, 252, 312, 404, 410.

Halibut fisheries, 89, 93, 249, 315, 445, 463.

Haddock fisheries, 94, 408.

Herring and sardine fisheries, &c., 10, 13, 81, 93, 96, 193, 199, 221, 249, 312, 333, 392, 401, 409, 417, 461.

Sword-fish, 446.

Shad, whitefish, salmon, trout, bass, carp, &c. See also under D.—Culture of Marine Forms.

 $\mathbf{Shad}\ \mathbf{fisheries},\ 8, \mathbf{13}, \mathbf{61}, \mathbf{88}, \mathbf{140}, \mathbf{161}, \mathbf{165}, \mathbf{199}, \mathbf{221}, \mathbf{241}, \mathbf{242}, \mathbf{244}, \mathbf{310}, \mathbf{318}, \mathbf{337}, \mathbf{361}.$ 

Eels, 208, 255, 312.

Catfish, 292, 321.

Sturgeon, 346.

Mullet, 135.

Squid, 89, 404.

Lobsters, 421.

Crabs, 48.

Pearls, 365.

Apparatus of fishing, 58, 129, 143, 167, 223, 255, 282, 317, 322, 353, 359, 387, 406. Fish market reports, 1, 90, 92, 94, 96.

Fish, exports of, 125, 366, 392.

Legislation and petitions, 187, 189.

#### C.—NATURAL HISTORY OF MARINE LIFE.

Natural history of fishes, &c., 13, 15, 37, 49, 52, 55, 61, 76, 90, 111, 128, 152, 345.

Classification and nomenclature of fishes, 54.

Lists of specimens, 77.

Rare occurrences, 240, 251, 252, 403.

Invertebrates, 15, 256.

Enemies of fish, 37, 220, 239, 248, 257, 261, 294, 295, 296, 297, 308, 315, 375, 443, 456, 470.

Concerning water good for or injurious to fish, 305, 426, 433, 465.

Mortality of fish, 263, 299, 361, 439,

Food of marine animals, 449, 453.

Deep sea research and tools, 367, 415.

Temperatures of water, &c., 366, 367, 369.

# D.—CULTURE OF AQUATIC FORMS.

Fish culture, 65, 69, 88, 115, 193, 261, 377.

Shad culture and distribution, 65, 161, 165, 198, 206, 310, 319,

Whitefish culture and fisheries, 112, 113, 121, 190, 315, 316.

Codfish culture. See under B.-The Fisheries.

Salmon culture and fishing, 76, 88, 116, 134, 185, 201, 304, 314, 322, 362, 363, 366.

California salmon, 88, 134, 138, 144, 174, 178, 201, 290, 313, 364.

Penobscot salmon, 169, 170.

Schoodie salmon, 87, 114, 288, 341, 383.

Trout fishing and culture, 64, 76, 112, 119, 164, 217, 286, 293, 311, 360, 364, 393, 469.

Eel fishing and culture, 122, 389.

Bass fishing and culture, 218, 219, 365, 470.

Carp and pond culture, 14, 16, 33, 75, 85, 112, 122, 123, 124, 139, 159, 176, 179, 183, 205, 221, 230, 266, 305, 329, 345, 366, 380, 426, 449.

Water plants, 257, 261, 443, 456.

Striped bass, 225, 320.

Goldfish, 381.

Oyster and mussel culture, &c., 17, 43, 87, 97, 138, 166, 175, 219, 233, 302, 332, 354, 356, 373, 418.468.

Lobster fisheries and culture, 16, 462.

Hatching apparatus, 316, 416.

Transportation of fish, 168, 212, 312.

Exporting fish eggs and young fish, 31, 52, 60, 76, 166, 190, 219, 308, 309, 361.

Importing fish eggs and young fish, 141, 361.

Fish culture abroad, 124, 138, 185, 273, 312, 384, 419.

Fish ways and obstructions to fish, 209, 232.

#### E.-MISCELLANEOUS.

Economic interests relating to fish, 74, 80, 139, 151, 203, 238, 268, 305, 307, 310, 317, 356, 391, 395, 412.

Fishery exhibits, 177, 291, 385.

Translations, 97, 115, 185, 209, 273, 282, 299, 322, 329, 333, 348, 356, 371, 375, 384, 387, 389, 391, 392, 393, 395, 419, 433, 449, 453, 465.