

prehensive outline of human knowledge, showing the relations existing among its several branches, and giving the student a correct sense of the proportion between what he knows and what there is to know. Employing the scientific method, it teaches how to observe. College training in it is continued directly in subsequent experience with the world. The material is ever at hand. Dealing with the vital problems of all epochs, it inculcates breadth of mind and develops the reason. It induces consideration and awakens appreciation of other men and other races. It supplies an available touchstone of truth and error. Wherefore it is that a new and deeper meaning now abides in the words:

"Know, then, thyself; presume not God to scan;
The proper study of mankind is man."

FRANK RUSSELL.

AMERICAN MORPHOLOGICAL SOCIETY.

II.

Notes on Cyanea Arctica: CHAS. W. HARGITT.

The early cleavage phases are passed while the eggs are still within the gonads or in the complicated folds of the manubrium. A gastrula is formed, following total cleavage, by invagination, and an early closure of the blastopore ensues. The embryo becomes ciliated before its escape from the egg membrane, within which it may be seen slowly rotating. On emergence it is almost spherical but soon assumes the ovoid shape characteristic of the Cœlenterate planula. While details as to the formation of the entoderm are not yet complete they seem in the main to confirm the observations of Hyde, Smith and the recent work of Hein.

The encystment noted by Hyde and McMurrich has been common in the specimens under consideration, though I have been able to show that the process is rather in-

cidental than essential as claimed by McMurrich. It seems wholly conditioned upon the environment; where favorable and natural the process is rare or absent.

The scyphistoma stage of development was attained in variable periods depending again upon conditions. Under favorable conditions it may occur in from eight to ten days, while under other conditions it may not take place within as many weeks. Thus also with the changes involved in strobilization and the release of the ephyra. Under favorable circumstances they have taken place in the aquarium within a period of eighteen days from the escape of the planula to that of the ephyra.

Stolonization occurs as in *Aurelia*, but much less freely, as does also the origin of buds from the stolons. Budding from the side of the polyp was not observed in *Cyanea*, its small size probably rendering such process difficult.

The entire life history from the egg to the free ephyra was followed in detail with unusually good results in aquaria of varying size from a mere watch glass or petrie dish to jars holding a gallon or more.

Notes on the Cœlenterate Fauna of Woods Holl: CHARLES W. HARGITT.

Inheritance of Color Among Pointers: FRANK E. LUTZ and ELIZABETH B. MEEK.

Dr. Francis Galton ('89) proposed 'briefly and with hesitation' a statistical law of heredity applicable to bisexual descent. Briefly stated, it was that one half the offspring's characteristics are derived from the parents (an equal amount from each), one fourth from the grandparents, one eighth from the great-grandparents, one sixteenth from the great-great-grandparents, and so on. Galton himself ('97) tested this hypothesis by the consideration of a single color characteristic—the conditions of being tricolor or non-tricolor—in