

and fixed purpose; that it was specially adapted to its original design; and, finally, fixed where its adaptation had fullest scope. This view was strongly opposed by arguments based upon parasitism, showing that there had been a gradual variation in design as different circumstances arose, and fresh materials came to hand.

NEW SPECIES OF MOLLUSCA AND ECHINODERMS.

Professor A. E. Verrill describes in detail, in the last number of the *American Journal of Science*, many new species of Marine Fauna, discovered on the southern coast of New England, during the present season by the large party, under the auspices of the U. S. Fish Commission, of which Professor Spencer F. Baird is a Commissioner.

The following is a list of the new species, described by Professor A. E. Verrill and Mr. Sanderson Smith, with the exception of *Luidia elegans*, described by Perrier.

MOLLUSCA.

Heteroteuthis tenera, sp. nov.—*Calliteuthis*, gen. nov. *Calliteuthis reversa*, sp. nov.—*Alloposus*, gen. nov. *Alloposus mollis*, sp. nov.—*Cymbulia calceola*, sp. nov.—*Pleurotoma Agassizii*, sp. nov.—*Pleurotoma Carpenteri*, sp. nov. *Scalaria Pourtalesii*, sp. nov.—*Scalaria Dalliana*, sp. nov.—*Lamellaria pellucida*, sp. nov. *Lepetella*, gen. nov. *Lepetella tubicola*, sp. nov.—*Lovenella Whiteavesii*, sp. nov.—*Calliostoma Bairdii*, sp. nov. *Margarita regalis*, sp. nov. *Margarita lamellosa*, sp. nov. *Turbonilla Rathbuni*, sp. nov. *Turbonilla formosa*, sp. nov.—*Pleurobranchaea tarda*, sp. nov. *Philine amabilis*, sp. nov. *Diaphana (Utriculus) gemma*, sp. nov. *Doris complanata*, sp. nov. *Cadulus Pandionis*, sp. nov. *Loripes lens*, sp. nov. *Modiola polita*, sp. nov. *Pecten fenestratus* (?)

ECHINODERMS.

Asterias Tanneri, sp. nov. *Odonaster*, gen. nov. *Odonaster hispidus*, sp. nov. *Archaster Americanus*, sp. nov. *Archaster Agassizii*, sp. nov. *Luidia elegans*.

A POISONOUS PRODUCT OF FERMENTED INDIAN CORN.

If the grains of Maize, or Indian Corn, be subjected to fermentation, they become dark in color without changing form, and are found to contain, in considerable amount, a body which may be extracted by alcohol. After the removal of the alcohol by distillation, there is obtained a residue, from which, after long standing, an oil separates. This oil is brown in color, has a sharp, bitter taste, and a sp. gr. of 0.925. It forms soaps with alkalies, is soluble in alcohol and ether, and becomes resinous when exposed to the air. It acts as a poison on the animal system, and in certain other properties is very similar to strychnia.—Coeytaux, *Chemiker-Zeitung*.

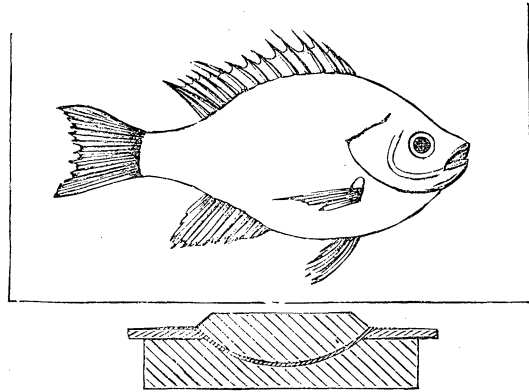
A PHYLLOXERA CONGRESS was held last month in Spain, at Saragossa, for the consideration of all topics connected with the grape Phylloxera. *The American Entomologist*, basing its opinion on the recovery of vines in Solano County, Cal., asserts its belief that the ravages of Phylloxera will have its day, and that from causes, not far to seek, the vine will again grow on the very lands which have been lately ravaged. For fear of the Phylloxera the Turkish Government have forbidden the introduction of any plants whatever in the territories of the Sultan.

IT is said that the Cochineal insect, which is a native of Mexico and Central America, thrives well in Florida.

CRYSTALS OF HÆMINE.—F. Högyes has examined crystals from the blood of men, oxen, swine, sheep, dogs, cats, rabbits, guinea-pigs, mice, pole cats, poultry, pigeons, geese, ducks, *Rana esculenta* and *temporaria*. All have one crystalline form only. They belong either to the monoclinar or triclinar system, probably the former.

TAXIDERMY.

Mr. Herman E. Davidson suggests an improvement in the art or method of mounting skins of fishes, which consists in forming a rigid mold of plastic material on the surface of the skin to be mounted before it is detached from the body of the fish, and thereafter removing the soft portion from the skin and stuffing or filling before it is removed from the mold, whereby the natural form and convexity of the fish are preserved.



This improvement may be understood by the annexed drawing. It will be seen that Mr. Davidson takes a mold-board having a portion removed corresponding with the outline of the body of the fish, exclusive of median fins, and inserts the body of the fish in the opening, the median fins resting against the face of the board, and forming a mold of plastic material upon the body of the fish projecting beyond the other face previous to removing the soft parts and stuffing the skin. The soft parts are then removed from the skin resting in the mold, and plastic material, adapted to solidify, is then poured in.

BOOKS RECEIVED.

THE JOURNAL OF NERVOUS AND MENTAL DISEASES, for October, 1880. Office No. 70 Monroe street, Chicago, and G. P. Putnam's Sons, New York.

The opening article is by Dr. S. V. Clavenger, consisting of his paper read before the American Association for the Advancement of Science, entitled "Plan of the Cerebro-spinal Nervous System." An abstract of this paper was furnished to "SCIENCE," by Dr. Clavenger, and appeared in this journal of the 11th of September last. Specialists should not fail to read the paper now presented in detail, as it forms an important addition to the literature of this subject. Dr. Edward C. Spitzka contributes two papers, the first a continuation of his "Contributions to Nervous and Mental Pathology," and "Contributions to Encephalic Anatomy." In the latter article Dr. Spitzka takes up the subject and methods of a study of the Ichthyopsidian brain. As we shall probably reproduce this article for the benefit of the readers of "SCIENCE," further reference to it at present is unnecessary. We cannot, however, refrain from expressing our satisfaction at finding that Dr. Spitzka continues to devote his attention to original research in this direction; our knowledge of human anatomy has been greatly extended by the investigation, of naturalists, into the lower forms of life, and if higher results are attained, it will be by such indefatigable and intelligent work as is manifested in this paper of Dr. Spitzka. The other articles in this number are, "Contributions to Psychiatry by James G. Kiernan, M. D. A case of Diffuse Myelitis, by Dr. J. C. Shaw, and Dr. John S. Woodside. A case of Acute Myelitis, by S. G. Webber, M. D., and a case of Meningo-encephalitis, by H. M. Bannister, M. D.