not perfect fish. Yet they have the characteristics of the albino parents.

Of the fry from the second cross 42 per cent. hatched; but none were alive at the end of one month. Some of them were imperfect in form, and were colored more like the natural male parent, but not entirely so.

From the third cross all the eggs were fertile except eight—a loss of but two per cent.—and all are living at the end of thirty days. There are practically no cripples, and the coloring is typical of the natural female parent.

The silver gray albinos did not spawn. They have the appearance of barren fish.

These fish were exhibited by this department at the New York state fair last fall and attracted much attention.

C. R. Pettis.

Forest, Fish and Game Commission,
Albany, N. Y.,
April 15, 1904.

BOTANICAL NOTES.

WEEDS USED IN MEDICINE.

Under this title the United States Department of Agriculture issues an interesting bulletin (Farmers' Bulletin, No. 188) prepared by Alice Henkel, assistant in drug and medicinal plant investigations. The author calls attention to the fact that many of the common weeds of the farm and garden possess medical properties, and in some cases might be collected and made a source of revenue. Thus in his fight with the plant pests in his fields the farmer may actually turn them to some account, by collecting and preparing them for the market as crude drugs. Directions are given for collecting and curing, and suggestions are made as to their disposal when ready for the market. They are first considered under roots, barks, leaves and herbs, flowers and seeds. Following this are descriptions of some of the more common weeds which have medicinal importance, illustrated by a number of good figures. No less than twenty-four species are taken up in this part of the bulletin. It should prove very useful to many farmers and gardeners.

THE DATE PALM IN AMERICA.

In a recent bulletin (No. 53) of the Bureau of Plant Industry of the United States Department of Agriculture, Walter T. Swingle makes a report of his investigations of the date palm as grown in Algeria, and of the attempts to introduce it into California and Arizona. The purpose of the bulletin, as stated by the author, "is to call attention to the peculiar suitability of the date palm for cultivation in the hottest and most arid regions in the southwestern states, and to its remarkable ability to withstand large amounts of alkali in the soil. The most intense heat, the most excessive dryness of the air, the absence of all rainfall for months at a time during the growing season, and even the hot, dry winds that blow in desert regions, are not drawbacks, as in almost all other cultures, but positive advantages to the date palm, enabling it to mature fruit of the highest excellence." The author shows that the Salton Basin in California 'is not only the most promising region in the United States, or in North America, for the culture of the best sort of dates, but that it is actually better adapted for this profitable culture than those parts of the Sahara Desert where the best exported dates are produced.' It is shown to be probable that this single region is capable of producing dates enough to supply the demand for the whole country. Other regions in California, Nevada, Arizona, New Mexico and Texas are discussed, the conclusion being that in all of these states date palms of certain varieties may be grown with profit.

From the bulletin it appears that there are three principal types of dates cultivated by the Arabs, viz: 'soft dates,' which are very sugary and include the sorts with which we are familiar; 'sour dates,' which contain a much lower percentage of sugar, not enough, in fact, to preserve them; 'dry dates,' which are not at all soft or sticky when ripe, and which may be stored and kept indefinitely. None of the last are to be found in the American markets, and scarcely any of the second type. Of the 'soft dates,' the variety which bears the name of 'Deglet Noor' is the most famous. It is very late in maturing,

but yields a fruit of great excellence. We are assured that this variety can be grown in the Salton Basin, California.

WOODY PLANTS IN WINTER.

K. M. WIEGAND and F. W. Foxworthy, of Cornell University, have published a handy pamphlet which should be very useful to foresters, horticulturists, schoolteachers and others who do not have such an intimate personal acquaintance with trees and shrubs as will enable them to recognize them in their winter condition. By means of carefully made keys the genus of any woody plant, native or planted in the state of New York, may be determined with a good deal of certainty. The authors hope to bring out later a similar set of keys to the species.

DOCTOR AUGUSTIN GATTINGER, BOTANIST.

BORN in Munich, Germany, in 1825, educated in the Gymnasium and University of Munich, emigrated to Tennessee when twenty-four years of age, practised medicine and studied the flora of Tennessee for many years, published 'Trees and Shrubbery Adapted to the Soil and Climate of Nashville' (1878), 'Tennessee Marbles' (1883), 'Botanical Fragments' (1884), 'The Tennessee Flora' (1887), 'The Medicinal Plants of Tennessee' (1894), 'The Flora of Tennessee' (1901), died in his home in Nashville, July 18, 1903. Such is the brief summary of the life of a pleasant, genial, industrious man who loved plants, and studied them because he loved them.

In the *American Historical Magazine* for April, 1904, there appeared a sympathetic biographical sketch (28 pp.) of the life of Dr. Gattinger, by Robert A. Halley, accompanied with a fine portrait. This has been printed separately for distribution among botanical and other friends. CHARLES E. BESSEY.

SCIENTIFIC NOTES AND NEWS.

THE University of Toronto conferred, on May 27, the honorary degree of LL.D. upon President Harper, of the University of Chicago; Professor Minot, of Harvard University; Professor Saunders, of the Dominion Experimental Farm, Ottawa; Mr. W. S. King, Dominion astronomer, and his assistant, Mr. Otto Klotz; and Captain Deville, surveyor-general, Ottawa.

CAMBRIDGE UNIVERSITY conferred, on May 28, the following doctorates of science: Hendricus Gerardus van de Sande Bakhuysen, president of the Royal Academy of Sciences, Amsterdam, professor of astronomy in the University of Leiden; Andrej Sergejevich Famintsyn, member of the Imperial Academy of Sciences of St. Petersburg; Edmund Mojsisovics, Edler von Mojsvár, member of the Imperial Academy of Sciences, Vienna; Gustav Retzius, member of the Royal Swedish Academy of Sciences, emeritus professor of anatomy in the University of Stockholm; Eduard Riecke, member of the Royal Academy of Sciences, Göttingen, professor of physics in the University of Göttingen; Wilhelm Waldeyer, secretary of the Royal Prussian Academy of Sciences, Berlin, professor of anatomy in the University of Berlin.

THE senate of the Royal University of Ireland has resolved to confer, *honoris causa,* the degree of doctor of science on Sir William Crookes, F.R.S., and on Professor James Dewar, F.R.S.

A COMPLIMENTARY dinner was given on May 16 in London to Major-General E. R. Festing, C.B., F.R.S., upon his retirement from the post of director of the science division of the Victoria and Albert Museum.

PROFESSOR R. S. WOODWARD, dean of the faculty of pure science, will be the delegate from Columbia University at the celebration of the fiftieth anniversary of the founding of the University of Wisconsin, on June 5 to 9.

DR. L. O. HOWARD, chief entomologist of the Department of Agriculture and permanent secretary of the American Association, has returned to Washington after investigations in the southern states and Mexico.

PROFESSOR R. W. WOOD, professor of experimental physics at the Johns Hopkins University, has gone to Europe, where he will carry on investigations during the summer.