

**Botanical Notes.**

Prof. W. Whitman Bailey, of Brown University, has written a charming little book on Rhode Island Wild Flowers, in which he has given full sway to his poetic instincts and his deep love of nature.

Mr. J. Y. Bergen, jr., teacher of botany in the English high school, Boston, has in course of preparation (to be published by Ginn & Co. early in 1906) a High School Botany. The work will be looked forward to with interest, as it will embody features derived mainly from a long and successful teaching experience, and from practical study and observation in the class-room.

The local secretaries of the Botanical Club of Canada should endeavor to hand in their reports before the close of the year. Reports founded on their observations have to be arranged by the secretaries for the provinces, and sent to the general secretary, Dr. A. H. MacKay, Superintendent of Education, Halifax, who has the important and arduous duty of making up the Club's yearly report on botany, which is presented to the Royal Society. The reports of observers in Nova Scotia should be sent to E. J. Lay, Amherst; in New Brunswick, to G. U. Hay, St. John; in P. E. Island to ———.

**The Heavens in December.**

The first hours of a December night witness a visible brightening of the eastern heavens upon the entry of Orion and his splendid neighbors,—Taurus, Auriga, Gemini and Canis Major. One of the finest pageants that Nature affords to the contemplative observer is the vast procession of these starry magnificoes of the sky. Whenever they are visible there is nothing on the earth or in the dome that can take precedence before them.

The Pleiades in Taurus and the Hyades, forming the V-shaped figure in the same constellation, are superbly beautiful objects for the opera glass. Is Aldebaran, the chief star in the Hyades, and one of the most beautiful anywhere in the sky, rose red or orange red? That is a question about which observers differ, and every amateur not color blind is entitled to have an opinion of his own concerning the color of that great sun in Taurus, a sun far grander than our own. Look with a three-inch telescope at the bright white star Rigel in the foot of Orion and enjoy the sight of its little blue comrade. Try Zeta, the left hand star in the Belt of Orion, with a little larger telescope. It has a companion whose color is one of the curiosities of the sky, but just what that color is nobody, apparently, knows. And do not neglect the Orion nebula hanging below the belt, an object whose interest for astronomer, or wayfarer among the stars, never becomes less. Auriga, too, has many telescopic beauties which lack of space prevents my describing, but to which such a book as Webb's "Celestial Objects" gives a clue, and Gemini presents

to us the wonderful twin Castor, yielding its duplicate charm to the smallest telescope.

Jupiter is still the only planet conveniently situated for observation. It is in Cancer, a few degrees south-east of the cluster of stars called the Beehive, and, about midnight, will be found half way up the eastern slope of the Zodiac. Venus continues to adorn the morning sky, but having attained her greatest western elongation at the end of November, she is now approaching the sun again. She will be near Saturn in Libra on the 22nd and for a few mornings before and after that date, and the conjunction should be a sight worth getting up before sunrise to see. Mercury and Mars are too near the sun for satisfactory observation. Saturn and Uranus are in the constellation Libra, and Neptune is between the horns of Taurus.—*Condensed from Sc. American (Garrett P. Serviss).*

**PRIMARY DEPARTMENT.**

[This Department will in future be devoted to work in the primary grades. Teachers are invited to co-operate to make it instructive as possible.]

At six years of age children are tender enough, in all conscience, to begin to learn to read, and cipher. It would be better if this work were deferred until the seventh or eighth year.—*Intelligence.*

It has come to be accepted that primary teachers must have a peculiar "faculty for getting along with the children," must have pleasant "ways" to attract the little ones and make them "like her." *Amen* to all this, but is there any reason why "faculty" and adaptability should not go hand in hand with an ambition to keep abreast with newly discovered truth, and the possession of sufficient mental grasp to comprehend and assimilate it?

Our primary schools will surely degenerate into pretty school-room nurseries if the teachers who hold a thousand vital beginnings in their lax fingers are to be gauged alone by their ability to "get along with the children."—*Primary Education.*

Methods of teaching primary classes in reading have formed a sort of "storm center" in elementary teaching because each ardent exponent of some one special mode is sure that she has "found it"—the long-hidden secret of how children *should* learn to read. Very few people rise in conventions to-day and defend the alphabetical method, but the popular verdict of the elderly relatives of primary children would often be in its favor. The language that they use is something like this, "When I went to school, children learned to spell when they learned to read. I believe in children learning their letters." Few teachers of to-day would regard all that