

is divided. One-half is sour, like a Greening, and the other half is sweet, like the Tallman. This is one of the most peculiar freaks which has ever been observed in vegetation. Its oddity, as well as its fine bearing qualities, and the excellent quality of the fruit, both the sweet and sour portion, will make it immensely popular."

I also send for your examination a *Dahlia* stem bearing two flowers of different colors.

E. LEWIS STURTEVANT.

SOUTH FRAMINGHAM, MASS., October 6, 1896.

[The one *Dahlia* is light pink, becoming darker towards the center, the other dark maroon with a few pink petals near the center. Ed.]

#### THE LIMITS OF SCIENCE.

PRESIDENT MEES, in his address before Section B (Physics) of the American Association for the Advancement of Science (printed in the last number of this JOURNAL) states that the progress of science "may be expressed by a curve approaching truth asymptotically, probably never in human experience approaching to its *complete* knowlege. So long as investigators find that they are working upon the steep part of the curve where it approaches truth rapidly, there is no lack of interest; this, however, seems to die out quickly when much labor and great patience are required to extend experimentally the curve now more slowly approaching complete knowledge, or straighten out some of its irregularities."

I should myself regard the progress of science from a very different point of view. Knowledge does not seem to me to approach final truth as an asymptote, but rather to be an irregular sphere in endless space. The more we enlarge our little sphere the greater is the surface at which our knowledge touches our ignorance. The more we learn the greater is the area immediately awaiting exploration.

It is true, as President Mees states, that a man or group of men of unusual insight carry forward our knowledge, and the details must be filled in until the average has arrived at the point reached by the positive variations. Then new positive variations carrying our knowledge further are more likely. But there has never before been a time when it was pos-

sible for a man of genius to make such great advances and in so many directions.

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#### RUTGERS COLLEGE MUSEUM.

TO THE EDITOR OF SCIENCE: The Geo. H. Cook Museum of Geology occupies the two upper stories of Geological Hall, which was built in 1871. The museum proper is 84 feet long, 40 feet wide and about 23 feet high, with a gallery 6 feet wide on all sides. The upper and lower class rooms open directly into the museum by double doors.

The Cook collection of minerals occupies six cases on the east side of the room, and numbers over 4000 specimens. The fossils, and specimens illustrating geology, are arranged in six cases on the west side, which, with two large cases on the floor, of rocks, iron and zinc ores, clays, sands and marls (including fossil bones and shells found in the marls) of New Jersey, number 5250 specimens.

The Lewis C. Beck collection of minerals fills two large cases on the floor, and contains 3000 specimens, mostly collected over fifty years ago. Many of them are the original specimens used in some of the old State reports and text-books, and it is really a historic collection of great value to the mineralogist. The pseudomorphs are specially valuable to the lithologist and mineralogist. The center of the floor is occupied by a case of Ellenville quartz crystals, showing also crystals of Chalcopyrite, Sphalerite and Galenite. This collection is a gem!

On the floor near the entrance is a mass of Jura-Trias sandstone 8x18 feet, from Morris Co., N. J., showing fifteen species of dinosaurian footprints. This is said to be the largest and best specimen of saurichnites in this country.

The Mannington (N. J.) mastodon, which was set up last June, covers a space 8x20 feet at the north end of the room.

A diamond-drill core in the gallery shows a section of the rock at the Franklin zinc mines, 1378 feet in depth.

Cases are being built for the large collection of paleolithic implements numbering about 1500 specimens, which include many fine pipes and ceremonial and ornamental objects.