

Mapes, Charles Victor (1836-1916).

C. V. MAPES, who was born in New York City on July 4, 1836, was endowed with a versatile and brilliant mind and a bent toward applied science. Even while he was a student at Harvard College, he had fitted up a laboratory in his own room. As the state of his health prevented his studying medicine, as originally planned, he took up work in 1858 in a firm of whole grocers. In the next year, he established a factory near Newark for the manufacture of agricultural implements and fertilisers. He also took over the management of his father's paper *The Working Farmer*.

#### MAPES'S FERTILISERS.

Mapes was a pioneer in scientific agriculture. His special field was agricultural chemistry. In 1874, he produced the first special crop manure. This was for potatoes. He contributed several informing articles on chemical manures to the *Reports* of the New Jersey State Board of Agriculture and to several agricultural periodicals.

#### CONCLUSION.

In 1877 he became Vice-President and General Manager of the Mapes Formula and Peruvian Guano Company and later became its President. For a while, the Department of Agriculture of the Federal Government utilised his services in soil tests. He died on January 23, 1916.

Eastman, John Robie (1836-1913).

J. R. EASTMAN, the American astronomer, was born in Andover on July 29, 1836. He got his M.Sc. degree from the Dartmouth College in 1862. Shortly after this, he was appointed assistant astronomer at the Naval Observatory. In 1865, he became professor of mathematics and continued to be so till 1898.

#### CATALOGUE OF STARS.

He was an intimate associate of the astronomers, Newcomb and Hall. His contribu-

tions added not a little to the reputation of the Naval Observatory. From 1872 to 1882, Eastman was the editor of the publications of the Observatory. But the chief work of his life is the monumental volume entitled *Second Washington Catalogue of Stars*, which came out in 1898. It embodies the observations of several years with the meridian circle.

He was engaged in total solar eclipse expeditions in 1869, 1870, 1878 and 1882. He also took part in the determination of the longitudes of certain places in the United States.

#### CONCLUSION.

At various times, he was President of the Philosophical Society of Washington and of the Washington Academy of Sciences. He was also Vice-President of the American Association for the Advancement of Science. In addition to his astronomical contributions, he published in 1910, a book of considerable genealogical value, entitled *History of the Town of Andover*. He died on September 26, 1913. He contributed 21 articles to the scientific periodicals of the nineteenth century, his first paper entitled *On the Altitude of Kearsage Mountains in New Hampshire* having appeared in V. 48 of the *American Journal of Science*.

Pickel, Ignaz Balthasar (1736-1818).

IGNAZ PICKEL, the German Jesuit and mathematician, was born on July 30, 1736. He was professor of mathematics in the University of Dillingen, which was then the intellectual centre of Catholic Germany, though it was dissolved in 1804. His first book entitled *Elementa arithmetice algebrae ac geometriee, etc.*, 2 T, 1771-72, was a popular text-book in Germany and went through several editions. He wrote nine other books. The Royal Society's index lists two of his papers. He died on October 16, 1818.