substance. It can be easily obtained... The wonderful colour of its vapour suffices to distinguish it from all other substances known upto the present time."

Soon after its discovery, Courtois gave specimens of it to Deormes and Clement for chemical examination. They presented a memoir on it at a meeting of the Imperial Institute of France in November 1813. A few days later, Gay Lussac received a specimen of this substance and after a careful study designated it *iode*. He also prepared and named *hydriodic acid*. Humphrey Davy who was then at Paris received a complementary specimen from Ampere and he confirmed the conclusions of Gay Lussac in a communication sent to the *Philosophical transactions* of the Royal Scciety in 1814–1815. Mellor records that "H. Davy played a not too glorious part" in the affair.

Courtois died September 27, 1838.

ASTRONOMICAL NOTES.

Planets during October 1938.—Venus will continue to be a very bright object in the western sky soon after sunset, and will attain greatest brilliancy on October 16, the corresponding stellar magnitude being —4·3. On October 30, the planet will be at one of the stationary points of its orbit. Mars will be visible as a morning star, rising about two hours before sunrise, but will still not be well placed for observation. The close conjunction of the planet with Neptune on October 12 is worth observing, the angular distance between the two being only five minutes of arc. A small telescope will however be required for observing the phenomenon.

The two major planets Jupiter and Saturn will be conspicuous objects that can be conveniently seen in the early part of the night. The former is nearly stationary among the stars during the month and will be on the meridian at about 8 P.M. Saturn will be rising at about sunset; and on October 8, the planet will be in opposition to the Sun. The major and minor axes of the ring ellipse are 45″ and 7″ respectively. An occultation of Uranus by the moon will take place at about 10 P.M. on October 11, the reappearance being at the dark limb can be observed even with a binocular. Another lunar occultation of interest that can be seen in these latitudes is that of B. Capricorni, a third magnitude star which will occur at about 9 P.M. on October 3.

A General Catalogue of Stars.—The Department of Astrometry, Carnegie Institution of Washington, has recently published in five volumes, an extensive catalogue, providing standard positions and accurate proper motions of a large number of stars well distributed over the whole sky. The catalogue includes all stars brighter than visual magnitude 7·0 and contains, besides, a number of fainter stars with fairly well determined proper motions. An elaborate investigation on the solar motion, the constants of precession and galactic rotation, has been made by R. E. Wilson and H. Raymond (*Astro. Journal*, 1084) based on the large amount of material contained in the New General Catalogue. Their discussion indicates small corrections to Newcomb's tables of precession. Referred to stars brighter than 7·0 magnitude, they find for the position of the apex of solar motion R.A. 270°·4, Declination 33°·2 N. As is well known, there are marked changes in the position of the apex depending on the magnitude and spectral types of stars whose motions are used in the investigation.

T. P. B.

OUR scientific method has been giving us better and better maps of our universe, mapping it from the points of view of physical science, of biological science, later of sociology, and finally of education. From the philosophical point of view we can not be at all certain that we have made any progress toward an understanding of the absolute nature of things, but we have made a practical progress in these useful guides for our race. The mapping that has been done in the first two fields named has been far more complete than in the others, and therefore is subject to much less criticism.

DINSMORE ALTER.