

ART. XXXII.—*Discovery of a New Planet*; by C. H. F. PETERS.
(From a letter to one of the Editors.)

IN the night of February 3-4, in revising one of my Zodi-
acal Charts, I found a star that I could not have omitted, as
being of the tenth magnitude. Some measures therefore were
immediately taken, which showed that the object is a planet
hitherto unknown. Its position was,

Feb. 3, 13^h 46^m 47^s m. t. $\alpha=10^h 1^m 38^s.08$. $\delta=+11^\circ 23' 34''.1$,
from ten comparisons with Dm. $+11^\circ.2173$,—the place of this
star being determined by differentiation from LL. 19882, of
which there are several modern determinations, viz: W. 10^h.91,
R. 3090, Arg. $+11^\circ.2190$, Berlin Mer. Cir. in A. N., No. 1383.

Last night it clouded up, before the planet could be re-ob-
served. But from the measurements of the preceding night fol-
lows the hourly motion $-1^s.75$ and $+27''.0$, or the daily motion
 -42^s and $+11'$, so that there will be no difficulty in finding
the planet again, it having now already entered upon Chacor-
nac's chart.

There has been some confusion of late in the numbering of
planetoids, arisen from neglect of prompt communication. But
it seems this new member will have to carry the number 180.
If the priority of discovery remains to me, I propose the name
Eunike, in commemoration of the glorious victories won by the
Russian armies in their strife for humanity.

Litchfield Observatory of Hamilton College, Clinton, N. Y., Feb. 5, 1878.

SCIENTIFIC INTELLIGENCE.

I. CHEMISTRY AND PHYSICS.

1. *New mode of Determining Vapor Densities*.—NAUMANN
has proposed an entirely new mode of determining vapor den-
sities, founded upon the well established principle that when sub-
stances not miscible with a given liquid are distilled with this
liquid, the quantity of the two bodies in the distillate, is, at a
constant temperature of ebullition, in a constant ratio. Since, on
the mechanical theory of gases, the vapor-tension, other things
being equal, depends on the number of molecules which the vapor
contains, the author sought a relation between the constituents of
the distillate, expressed in molecular weights, and the vapor ten-
sions of these constituents in the vapor mixture. The results
confirm completely the hypothesis and establish the following
law: The ratio of the quantities of the substances in the distil-
late, expressed in molecular weights, is equal to the ratio of the
vapor-tensions of these constituents in the vapor-mixture, meas-