

The following is a short excerpt taken from a lengthy article written by Kästner in 1747 for a German periodical, the Hamburgische Magazine (Hamburg Magazine), published in Hamburg and Leipzig. The article appeared in the first issue, for which it was the centerpiece. Kästner was a professor in Leipzig at the time, among whose students were Gotthold Ephraim Lessing and Christlob Mylius.

Praise of Astronomy

by A. G. Kästner

The grandeur of the Creator will be more clearly recognized by the grandeur of the universe; and the foundations of natural philosophy themselves are furthered by astronomy. Most forces, which affect bodies on our Earth and cause us to be uncertain as to what generates each of them, vanish in the distant stars- to this we must pay heed if we wish to discover the powers which are in all common bodies and exert influence upon all forces of nature. It has thus been found, that the very force which drives a stone to the earth is also that which holds the planets in their orbits. The most ancient Greek philosophers had already conceived of this, Kepler had conjectured it- it was left to Newton, however, to define and prove. This spirit (for England doubts whether he may even be called a man) made the truths of the ancients and the art of perception of the moderns his own; his penetrating glance discerned the seven-fold light of a sunbeam. The boundaries of our knowledge are too narrow for him: he treads with sure steps into the infinite, the evanescent magnitudes do not evade his sight, and those things which had no measure he created, brought forth from his intellect. He shows us what carries the Earth around the Sun, what raises the sea to the Moon, and causes the Earth to swell about its middle; he weighs the planets, and gauges their force upon one another, and makes manifest the law which God has prescribed for all bodies. His proofs are incontestable; his surmises are certainly against other proofs; observations are employed to refute him, and by these means corroborate his findings. One must be a Bernoulli or Euler, if one would take note of his errors, and he so nearly renders honor before the Truth, that, as [King] Hieron imparted to Archimedes¹, we are commanded to hold nothing he says as untrue.

To some German readers, praise of this Englishman will perhaps seem reprehensible here. Yet by it, I do not consider myself to be a scorner of my

¹As the story is recounted by Plutarch in his *Life of Marcellus*, as well as Pappus, the King of Sicily and Archimedes' patron, King Hieron II, had built a giant ship as a gift for King Ptolemy, but was unable to launch it, despite the efforts of his entire forces. Here is the origin of Archimedes' famous statement, "Give me a place to stand upon, and I can move the Earth," where he devised a device which allowed for the King to launch the ship single-handedly. After this, the King is reported to have said, "from this day forth, Archimedes is to be believed in everything he says."

Fatherland; I must thus remind, that the Germans are the teachers of astronomy to the foreigners. This is not the place to carry out a treatise, as no one will doubt this fact if I do not. Moreover, if I name both of the revivers of the edifice of the world, Cardinal of Cusa and Copernicus; if I name only a few from innumerable names- Regiomontanus, Peurbach, Clavius, Scheiner, Marius, Hevel, Kirch, Wurzelbau; and if I mentioned that Newton himself had recognized the great Kepler as his instructor, the proof will occur to all. Alas! That I must name Kepler's name, to our disgrace. Germany, the fruitful but negligent mother of great souls, permitted Kepler to struggle with poverty and misery when he was occupied with assigning laws to the heavenly bodies, and died on a journey which he made to collect his promised and long owed pay. Ungrateful Fatherland! have you been worthy of a Newton? Passion leads me too far. Yes, Germany, you have not been unworthy of Newton, for you had produced Leibniz. Though you have been somewhat careless with Astronomers, you have therefore not scorned astronomy entirely. Are not Berlin and Nuernberg, because of their observatories, known not only in your distant borders, but by foreigners as well? And through the industry and skill of a Marioni, Vienna, the ancient seat of the greatest astronomers, would undertake a new character, to the envy of Paris -so far as the greatness of other astronomers were susceptible to this very character -as she is a Monarchy. May your passion for astronomy, oh Germany, be readily strengthened!

translated by Tarrajna Dorsey