

of the Ptolemean system disquieted our sagacious prince, and under the influence of this feeling he permitted himself, one day, to exclaim, "If God had called me to his councils when he created the world, I could have given him some good advice to construct it in a simpler fashion." This sally, meant not irreverently, but as a satire on the scientific maze of the Alexandrian astronomer, cost the sagacious monarch dear—he lost his crown, in no small degree through his imprudent speech.

The theory put forward by Ptolemæus did not deal with an evident difficulty; why Mercury and Venus always preserved their proximity to the Sun. The desire of explaining this particular fact led to a certain modification of the original doctrine, and a movement of revolution round the Sun was attributed to these planets. Thus, to two minor spheres was granted what was denied to the Earth. The system which thus represents the beginning of a concession to the new spirit is known as the Egyptian cosmography. It is shown in Figure 11.

But not one of these magnificent schemes, as the reader perceives, found any place for the comets. Their authors would have been grievously embarrassed with such erratic stars flashing among their spheres of crystal. The comets—the Bohemians, as Lord Wrottesley called them, of the solar system—would assuredly have dashed open not a few windows in each fragile edifice!

To a German monk who lived in the sixteenth century, to NICHOLAS COPERNICUS, was reserved the unfading glory of overthrowing all this glittering but insubstantial structure of dreams, gues-

ses, and errors; to cut, like Alexander, with the bright sword of his genius, the Gordian knot of the Ptolemean epicycles, and to lay the foundation of a system which has become the breviary of astronomers.

Born in 1473, at Thorn in Prussia, Copernicus did not publish



FIG. 11.—COPERNICUS.