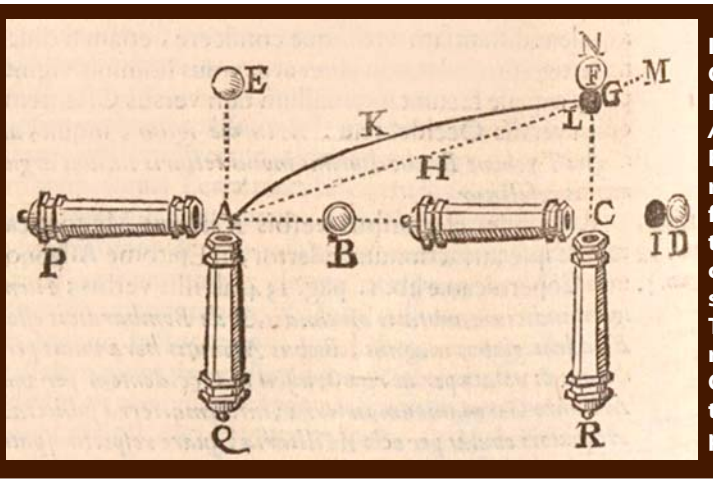

Illustration from Giovanni Battista Riccioli's 1651 *Almagestum Novum*. Because of Earth's rotation, a projectile fired north to hit a target at E/N follows curved path AKF, and strikes east of N at G. This effect is today referred to as the Coriolis effect, after the early 19th-century physicist.

north to south should have been detected. That it had not been they interpreted as evidence that Earth is immobile (page 427).[1] Riccioli and Grimaldi were geocentrists who supported the Tychonic theory—in which the Sun, Moon, and stars circled Earth while the planets circled the Sun—rather than the Copernican theory.

Christina Graney and I discovered this historic work accidentally, while researching how early astronomers interpreted telescope measurements of star diameters (which they did not understand to be spurious).[2] Riccioli discusses such measurements,[3] and thus we have been translating portions of his book.

Coriolis discussed motion in a rotating frame of reference in 1835. Siméon-Denis Poisson dealt with the deflection of projectiles in 1838. Earlier, in 1735, George Hadley noted the possible effect of Earth's diurnal rotation on winds.[4] Historian of science Edward Grant discussed Riccioli and Grimaldi's use of cannon balls fired in different directions to argue against Earth's motion, but did not mention that it describes the Coriolis effect.[5]

References

1. G. B. Riccioli, *Almagestum Novum*, vol. 2, Bologna, Italy (1651), p. 425. Text is available at http://www.e-rara.ch/zut/content/pageview/141030. Eng. trans., C. Graney, C. Graney.
2. C. M. Graney, T. P. Grayson, http://arxiv.org/abs/1003.4918v2.
3. C. M. Graney, *J. Hist. Astron.* **41**, 453 (2010).
4. For a discussion of the work of Hadley, Coriolis, and Poisson, see A. O. Persson, *Hist. Meteorol.* **2**, 1 (2005) and references therein.
5. E. Grant, *Trans. Am. Philos. Soc., New Ser.* **74**, 1 (1984); see p. 48.

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Student lab safety emphasized

The 14 April 2011 issue of my local newspaper contained a short note about a physics major at Yale University who was killed when her long hair became entangled in the machine lathe she was using. That was a tragic accident, but completely preventable. Industry tends to be careful about safety issues, partly because of liability problems and partly because a higher accident rate increases the cost of workers' compensation insurance. In my experience, academic institutions tend to be more casual about safety, and there seems to be the assumption that each researcher will deal with safety issues in his or her lab.

The accident at Yale reminded me of something that happened sometime between 1961 and 1966, when I was head of the physics department at Montana State University in Bozeman. The *Physics Teacher* published a picture of a young woman with long hair operating a drill press. That picture produced a strong reaction in me, and I had two pictures posed with one of our physics majors. One showed her leaning over the lathe with her long hair dragging on the chuck, and the other showed her in the same position with her hair in a kerchief. The *Physics Teacher* published both pictures, one labeled "This" and the other "Not This." Unfortunately, such basic safety measures get forgotten.

I urge PHYSICS TODAY and its readers to give attention to matters of laboratory safety. We should never have another accident like the one at Yale.

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