

compromising professional standards. They show, for example, little respect for the scientific aptitude of the venerable Aristotle; his biological works, they write, are a "rather tiresome farrago of hearsay, imperfect observation, wishful thinking, and credulity. . . ." Ranging from barnacles to sociobiology, they also clear up a few old controversies, including the famous chicken-egg debate: To believe that the egg came first, they explain, is to be a "Mendelist" and "in the Western Hemisphere a trustworthy and regular guy (some compensation, perhaps, for the odium of being classified in the Soviet Union as a 'genetic elitist . . .')." The authors conclude with a good-humored cheer for zoos.

**THE MONTGOLFIER BROTHERS AND THE INVENTION OF AVIATION, 1783-1784**

by Charles Coulston  
Gillispie  
Princeton, 1983  
210 pp. \$35



On June 4, 1783, in a small town in southern France, two sons of the wealthy paper-manufacturing Montgolfier family successfully launched the first hot-air balloon. Rising some 3,000 feet above the astonished citizenry of Annonay, the brazier-heated sackcloth globe drifted a mile and a half before gently returning to earth. Gillispie, a Princeton historian, has commemorated the aeronautic bicentennial with a charmingly vivid account of the inaugural liftoff and its early sequels. Among the latter: the first livestock-carrying flight, the maiden voyage of a hydrogen balloon (called "charlières" after inventor J.-A.-C. Charles), the first manned flight, and the first fatal crash. The two brothers Montgolfier—Joseph, an absent-minded inventor, and Etienne, a mathematician and practical man of affairs—occupy center stage, but a host of colorful characters fill out the drama. Benjamin Franklin, on hand for the first manned flight in November 1783, was asked what use the contraption could serve. "What use," he replied, "is a newborn baby?" Gillispie easily conveys his intimate knowledge of the era—of its learned societies and academies, of court life and rural politics. A wealth of firsthand commentary complements the period drawings and engravings of the first magnificent flying machines.