Robert Hooke

The year just ended marked the 300th anniversary of the publication of Robert Hooke's *Micrographia*. It is unfortunate that Hooke has been so neglected by scientific historians that this anniversary was given little attention. Consisting primarily of a series of observations made with one of the first compound microscopes, this classic of science made its most reverberating contribution as the first description of cells. But it aptly reflects its author's versatility, brilliance, and esthetic sensitivity, for several times in the discourse Hooke digressed upon widely varied fields of science. By the preface alone he is established as a philosopher, a founder of scientific meteorology, an originator of the metric system, and the first to formulate a practical theory of combustion. There is hardly a realm of science to which Hooke did not at some time in his life make a significant contribution.

Through the years, the scant amount of information available has portrayed him as an irritable recluse, thinking of nothing but himself and his work. We are indebted to Margaret 'Espinasse (*Robert Hooke*, Univ. of California Press, Berkeley, 1956) for a sensitive interpretation of a variety of sources, showing him to be a warm and witty sort, spending much of his time in coffee-houses with his many friends. . . .

Hooke strongly upheld the exciting and increasingly popular brand of experimental science which was beginning to flourish in his day. And even though he knew the importance of "observations on material . . . things," he found time to rest his elbows on the table and reflect with awe on the possibilities inherent in the methods of science. . . . It is time that the name of Robert Hooke took its place among the great names of scientific history—Newton, Harvey, Pasteur, and the other much-publicized workers of former times.

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Gaits of Horses: Marey's Studies

To Hildebrand's almost comprehensive article "Symmetrical gaits of horses" (5 Nov., p. 701) should be added a note concerning the ingenious studies carried out a century ago by E. J. Marey, physiologist, physician, and a pioneer in the study of the gait of all animals and the flight of birds and insects. Marey studied the gait of the horse by attaching to the hoofs pressure pads which communicated to a kymograph carried by a rider (Fig. 1). In this way the pressure-time relations of the four hoofs were recorded continuously. The figure is taken from his book *Du mouvement dans les fonctions de la vie* (Baillière, Paris, 1868).

Marey's many books on experimental methods in biology and medicine are recommended reading for those desirous of a knowledge of the characteristics of laboratory instruments during the latter part of the 19th century.

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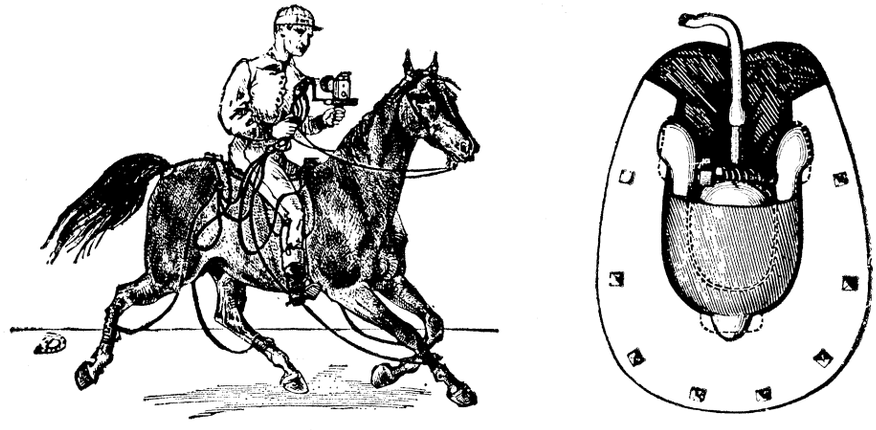

Fig. 1. Pressure on pads (right) attached to all four hoofs was recorded by the kymograph held by the rider.