

**Paper Communicated.****The Ellipsograph of Hazama Gorobei Shigetomi.**By Baron Dairoku Kikuchi, *Rigakuhakushi*

(Read Nov. 12, 1912)

Hazama Gorobei Shigetomi<sup>1)</sup> (間五郎兵衛重富, 1756–1816) was a pawnbroker of Osaka, having succeeded to his father's trade. He was from his boyhood remarkable for his inclination to astronomical studies; he became a pupil of Asada Gôryû (麻田門工, 1734–1799), who had been a physician to the Daimyô of Kitsuki, but being fond of astronomy had left the service to devote himself to his favorite study, and had settled in Osaka. In 1795, the almanac having gone wrong in the incapable hands of those in charge, Asada was summoned to Yedo by the Shôgunate to take charge of its revision. Asada excused himself on the ground of old age but sent his two pupils, Takahashi Sakuzaemon Yoshitoki (高橋作左衛門至時, 1764–1804) and Hazama in his place. The revision of the almanac was accomplished under their direction, and Hazama returned to Osaka, while Takahashi was placed permanently on the staff of the Observatory. Being a man of some means, Hazama always had artisans working under him, and constructed various instruments. Among these were a thermometer and a barometer, with which he began to make meteorological observations, which were kept up till about 1865. The instruments used by Inô (伊能勘解由忠敬) in his survey of Japan were also made under his direction. There is in the Library of the Academy a manuscript<sup>2)</sup> entitled *Daen Kigen* (橢圓起元), giving a description by his son Jûshin (重新) of an ellipsograph devised by him. My assistant, Mr. Mikami Yoshio, has translated it into

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1) The names of men are all given in the usual Japanese way, i.e., with the family name first.

2) Copied under the direction of my assistant, Mr. Endô Toshisada, from one in possession of Mr. Kubota Seitarô.