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Giovanni Poleni's "pinwheel" calculator: a project destined to disappear

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In 1709, the Marquis Giovanni Poleni (1683-1761) described his "pinwheel" calculator project in the essay "Miscellanea" of 1709. Poleni was an attentive reader of European scientific news of his time, despite the communication difficulties of the period. News of the inventions of calculating machines by Pascal and Leibniz did not escape him. He built the "pinwheel" to perform addition and subtraction like the Pascalina and multiplication and division like the Leibniz machine, on numbers of up to three digits. Instead of using the crank to operate his machine, Poleni introduced a solution similar to the mechanism of mechanical watches, based on a counterweight.

Inexplicably, the Marquis destroyed his car after hearing of a similar but more efficient model built by the Austrian Anton Braun.

Poleni's construction choices can be examined in relation to the experience of building other physics instruments and to the idea of putting science within the reach of the general public, including women, which permeated the period.

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