Solutions of the Problems and Riders Proposed in the Senate-House Examination for 1864 (Paperback)

By Sir William Walton

Rarebooksclub.com, United States, 2012. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****.This historic book may have numerous typos and missing text. Purchasers can download a free scanned copy of the original book (without typos) from the publisher. Not indexed. Not illustrated. 1864 Excerpt: .to the action of given forces. Find the least coefficient of friction consistent with equilibrium. A thin straight tube revolves with a given angular velocity about a vertical axis through its lower end, which is fixed, the inclination of the tube to that axis being invariable. Determine the condition of equilibrium of a particle placed at a given point within the tube, supposing it to be (1) smooth, (2) rough. Let a = the inclination of the tube to the vertical axis, a = the distance of the particle from the axis, co = the angular velocity. 12 The effect of the rotation is to produce an acceleration toa perpendicular to the axis, and from it, the resolved parts of which parallel and perpendicular to the tube are m2a sin a, toa cosa, respectively. Hence, if the tube be smooth, we have for equilibrium g cosa...

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