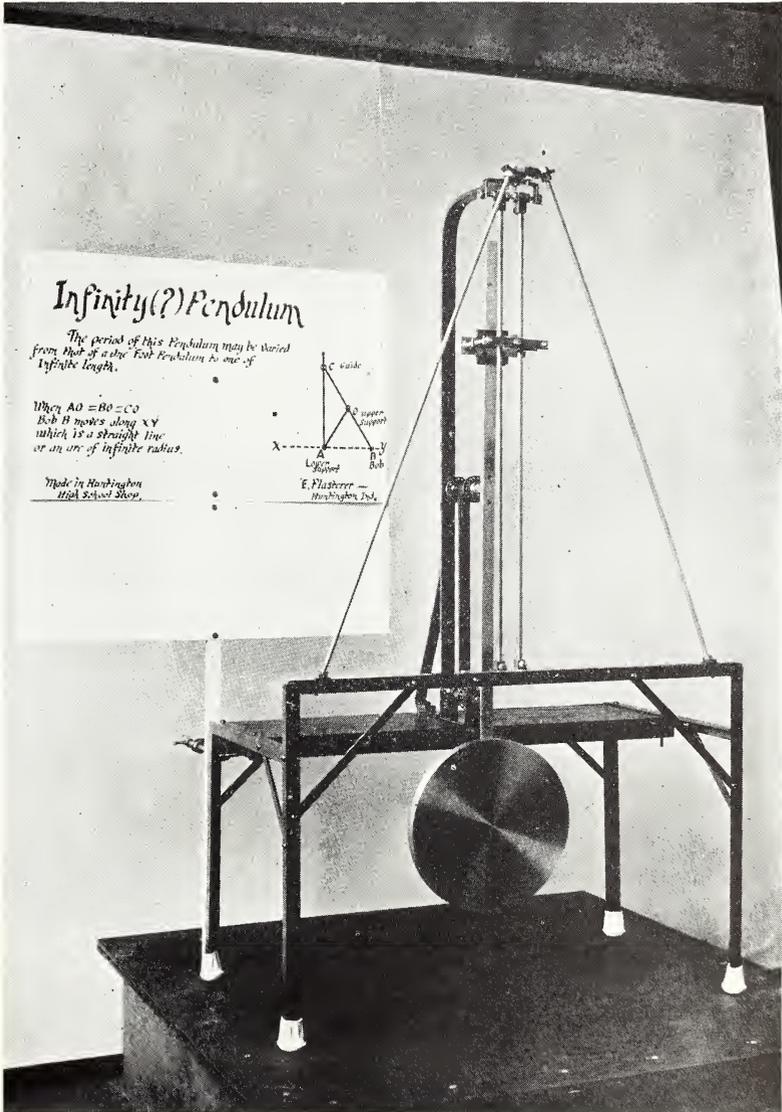


AN INFINITY PENDULUM

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The period of vibration of the ordinary physical pendulum is varied by changing the length of the pendulum. The range of length (as gen-



erally demonstrated) varies from about zero to ten feet or more depending on the convenience of locating the center of suspension. While the period of the ordinary pendulum is thus limited by physical limitations of length the infinity pendulum has no such limitations. There are no limitations because the center of suspension is theoretical and not material.

The hypothetical length can be changed by a slide adjustment from that of a few inches to one of infinite length.

The "Infinity Pendulum" (if I may name it thus) is a device by which a weight or bob is caused by gravity to vibrate through arcs having radii of any length. The bob vibrates below a vibrating support of the same period, however the degree of the vibration of the support is determined by the position of a wheel and clamp on the pendulum bar. The wheel and clamp is free to vibrate only in a vertical sense.

The accompanying photograph shows the details of the apparatus and also a diagram of the one case in which the pendulum has an infinite length. By the plane geometry indicated it can be seen that the bob can vibrate only in a straight horizontal sense, or through an arc of infinite radius. For this reason the device is called the "Infinity Pendulum." Of course when thus adjusted there is no motion and the bob rests at any amplitude as gravity has no chance to produce motion.

By placing the clamp at the very top of the bar the arc of vibration of the bob becomes inverted, that is the center of the arc is below instead of above the bob, and the bob due to its own weight moves out from the point of zero amplitude.

The arcs or curves of the bob (a few are faintly discernible in the picture) are not claimed to be perfectly circular but are practically so when the amplitude is small.

The apparatus can be improvised and improved. Friction should be reduced to the minimum.

As to the possibility of application of the mechanical principles of this device to means of producing curves, or governing speeds, or merely as a demonstration piece, others may judge.