is no figure, probably, except that of a sphere, but that may be so cut that the centres of gravity of the two segments shall be farther asunder than if the body were cut by a different plane. When a body is so cut as to give the greatest possible distance between centres of gravity of the two segments, the straight line passing through those centres, may be called the major axis of the body. Then, if the body be made to rotate upon an axis passing through its centre of gravity and cutting the major axis obliquely, the centres of gravity of the two segments must revolve in parallel planes on opposite sides of their common centre of gravity, and their orbits will have the same tendency to approach one another and find their equilibrium in the same plane, as in the case illustrated with regard to the bodies \( w \) and \( a \), in a preceding paragraph; that is, if the body be free to do so, it will assume a condition in which its major axis may be at right angles with the axis of rotation.

But, in this case, the bodies, or the two segments, not being free to rotate on their respective centres of gravity, their positions should probably be referred to the centres of oscillation, or of moment, instead of centres of gravity, which, however, in bodies or masses of regular figure, being found in the same axis with the centres of gravity, the deduction here made still holds good. Moreover, the same reasons operating with respect to any other axis, being greater as compared with a smaller one, it may be assumed, without further effort at demonstration, that a rotating body, free to choose its axis of rotation, tends to rotate about its shortest axis; and although a body of regular figure, rotating in exact equilibrium upon a major axis, may continue so to rotate without internal tendency to change, its condition is one of unstable equilibrium, which, if ever so slightly disturbed by an external force, cannot be regained without external aid, and the change