Friday, November 18, 1898.

Inertia as a Possible Manifestation of the Ether.

In the American Journal of Science for October I described certain experiments on the compression of coagulated jelly, to which I am inclined to attach some importance, since they establish a case of well defined persistent motion of material bodies in a highly viscous (solid) medium, as the sheer result of the breakdown of stress in the medium in question, and quite without the agency of any force 'acting at a distance.' I ask the reader's indulgence if I recall the main features of these experiments here, for the remarks which I propose to make in the present communication are to be based directly upon them and would lose their point in a mere reference.

Given a thread of firmly coagulated (10%-20%) gelatine solution b, Fig. 1, 10-20 cm. long, between terminal threads of mercury a and c in a fine bore (1/8 mm.) strong capillary tube (not shown in figure). The upper thread is fixed; the lower is movable and transmits the pressure of a strong force pump. As pressure increases, it will be found that the originally convex meniscus in Fig. 1 is gradually more and more sharpened conoidally upward, until the unstable figure 2 is reached, after which, as in 3, a small projectile, usually round and often less than 1/10 mm. in diameter, is shot upward 10-20 cm., against gravity and against