

# SCIENCE

EDITORIAL COMMITTEE: S. NEWCOMB, Mathematics; R. S. WOODWARD, Mechanics; E. C. PICKERING, Astronomy; T. C. MENDENHALL, Physics; R. H. THURSTON, Engineering; IRA REMSEN, Chemistry; J. LE CONTE, Geology; W. M. DAVIS, Physiography; O. C. MARSH, Paleontology; W. K. BROOKS, C. HART MERRIAM, Zoology; S. H. SCUDDER, Entomology; C. E. BESSEY, N. L. BRITTON, Botany; HENRY F. OSBORN, General Biology; C. S. MINOT, Embryology, Histology; H. P. BOWDITCH, Physiology; J. S. BILLINGS, Hygiene; J. McKEEN CATTELL, Psychology; DANIEL G. BRINTON, J. W. POWELL, Anthropology.

FRIDAY, NOVEMBER 18, 1898.

INERTIA AS A POSSIBLE MANIFESTATION OF  
THE ETHER.

## CONTENTS:

<i>Inertia as a Possible Manifestation of the Ether:</i>	
PROFESSOR CARL BARUS.....	681
<i>The Fauna and Flora about Coldspring Harbor, L. I.:</i>	
PROFESSOR CHAS. B. DAVENPORT.....	685
<i>The Nernst Lamp:</i>	
H. MONMOUTH SMITH.....	689
<i>Botany at the Anniversary Meeting of the American Association (II.):</i>	
DR. ERWIN F. SMITH.....	690
<i>Surveys of the Gateways to Alaska.....</i>	700
<i>Notes on Inorganic Chemistry:</i>	
J. L. H.....	701
<i>Botanical Notes:—</i>	
<i>The Flora of the Upper Susquehanna; Bombay Grasses:</i>	
PROFESSOR CHARLES E. BESSEY.....	702
<i>Scientific Notes and News.....</i>	703
<i>University and Educational News.....</i>	706
<i>Discussion and Correspondence:—</i>	
<i>The 'Bipolarity' Hypothesis:</i>	
PROFESSOR W. A. HERDMAN. <i>Peridinium and the 'Red Water' in Narragansett Bay:</i>	
DR. A. D. MEAD. <i>The Proposed Catalogue of Zoological Bibliography:</i>	
DR. W. H. DALL. <i>The Nernst Light:</i>	
H. C. COOPER. <i>The Day of the Week:</i>	
PROFESSOR GEO. C. COMSTOCK. <i>Northern Rocky Mountain Glaciers:</i>	
GEO. BIRD GRINNELL.....	707
<i>Scientific Literature:—</i>	
<i>Shaler's Outlines of the Earth's History:</i>	
PROFESSOR ISRAEL C. RUSSELL. <i>Lassar-Cohn's Die Chemie in täglichen Leben:</i>	
DR. FERDINAND G. WIECHMANN. <i>Wade's Introduction to the Study of Organic Chemistry:</i>	
J. E. G.....	712
<i>Scientific Journals.....</i>	716
<i>Societies and Academies:—</i>	
<i>The American Mathematical Society:</i>	
PROFESSOR F. N. COLE. <i>Biological Society of Washington:</i>	
F. A. LUCAS. <i>Entomological Society of Washington:</i>	
DR. L. O. HOWARD. <i>Torrey Botanical Club:</i>	
E. S. BURGESS. <i>Botanical Seminar of the University of Nebraska. Academy of Science of St. Louis:</i>	
PROFESSOR WILLIAM TRELEASE. <i>Alabama Industrial and Scientific Society:</i>	
PROFESSOR EUGENE A. SMITH.....	717
<i>New Books.....</i>	720

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 ( $\frac{1}{8}$  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  $\frac{1}{10}$  mm. in diameter, is shot upward 10-20 cm., against gravity and against

MSS. intended for publication and books, etc. intended for review should be sent to the publishers, Editor, Professor J. McKeen Cattell, Garrison Building, N. Y.