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FRIDAY, JUNE 26, 1903.

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MODERN VIEWS ON MATTER: THE REAL-IZATION OF A DREAM.*

For nearly a century men who devote themselves to science have been dreaming of atoms, molecules, ultramundane particles, and speculating as to the origin of matter; and now to-day they have got so far as to admit the possibility of resolving the chemical elements into simpler forms of matter, or even of refining them altogether away into ethereal vibrations or electrical energy.

This dream has been essentially a British dream, and we have become speculative and imaginative to an audacious extent, almost belying our character of a purely The notion of impenepractical nation. trable mysteries has been dismissed. A mystery is a thing to be solved—'and man alone can master the impossible.' There has been a vivid new start. Our physicists have remodeled their views as to the constitution of matter and as to the complexity if not the actual decomposability of the chemical elements. To show how far we have been propelled on the strange new road, how dazzling are the wonders that waylay the researcher, we have but to recall-matter in a fourth state, the genesis of the elements, the dissociation of

* An address delivered before the Congress of Applied Chemistry at Berlin, June 5, 1903, from proof under correction.

MSS. intended for publication and books, etc., intended for review should be sent to the responsible editor, Professor J. McKeen Cattell, Garrison-on-Hudson, N. Y.