tration effect supervenes; a larger particle will evaporate because the effect of surface tension supervenes.

4. In connection with this simple mechanism for producing stable nuclei of a startling degree of smallness by mere shaking, nuclei which may be without electrical charge, the question naturally arises whether the mechanism is not sufficient to account for nuclei in the presence of saturated vapor, in general.

Suppose therefore that such chemically powerful agencies as the X-rays, or Becquerel rays, or ultra-violet light, or the electric glow, etc., on being passed through a saturated vapor, produce in that vapor a new chemical synthesis in degree, however small (fancy the vapor pressure due to a few hundred nuclei per cubic centimeter!), soluble in the liquid from which the vapor arises. Then immediately around the new molecule there will be a region of vanishing vapor pressure. The new molecule (or ion) will therefore grow by condensing the vapor, until further growth is arrested by the decrement of vapor pressure due to diminishing convexity. In other words, the critical diameter is again reached.

C. Barus.

Brown University,
Providence, R. I.

QUOTATIONS.

THE APPLICATIONS OF ELECTRICITY IN GREAT BRITAIN.

The Institution of Electrical Engineers appointed, about a year ago, a committee to inquire into electric legislation and to recommend, if possible, such action as might assist the electrical industry. Some three weeks ago we gave the general conclusions of the committee, as embodied in a number of resolutions. Its report has now been issued, with a large amount of interesting evidence, extracts from which we publish to-day. There are practically no dissentients from the opinion that electrical enterprise is in a very backward condition in this country. The fact may be differently explained by different people, and no doubt, more than one cause may fairly be assigned. There are a few who rather glory in our backwardness, and try to persuade us that other nations have lost money by going ahead. But however the fact may be explained or regarded, it is universally admitted. In the use of electricity for traction, for lighting, and for the economical supply of power for manufacturing purposes, we are far behind other nations. So much is this the case that, when any demand arises for generating machinery and plant, it is found that there has been no previous demand of such a kind as to produce manufacturers with the requisite appliances and experience. An electric railway or tramway company has to import machinery from America or Germany, because it cannot be supplied at home, or, if supplied at all, is produced with extreme slowness. Things are, no doubt, improving in that respect, though it is not altogether agreeable to reflect that the improvement is largely due to American enterprise. The public are mostly concerned in noting the phenomena of traction and lighting. Yet it may be taken as certain that a far greater aggregate loss to the nation arises from the failure to take due advantage of the immense economy in the production and transmission of power that electricity offers when intelligently applied. The committee finds that the main cause of our backwardness is stupid and restrictive legislation, carried out by legislators having no knowledge of the subject they had to deal with, and allowing themselves to be guided by abstract political or economic theories. In other countries rulers called upon to deal with questions of this kind habitually consult men of science and frame their regulations with some regard to the special nature of the subject-matter. In other words, different forms of national intelligence are coordinated for the national good.—The London *Times*.

CURRENT NOTES ON METEOROLOGY.

MONTHLY WEATHER REVIEW.

The Monthly Weather Review for January (issued April 11), the first number of Vol. XXX., is somewhat changed in external appearance, and the name of Mr. H. H. Kimball as assistant editor is associated with that of Professor Abbe. There is a distinct