oxygen, having given off its $+E$ and now charged with $-E$, will combine with the kation $+H$. At the anode diffused hydrogen, after having received a positive charge from the metal, will combine with the anion $-O$. So the results of the electrolytic decomposition of water are annihilated continually. Oxygen, charged negatively, migrates as anion from the cathode to the anode, then, neutralised, it is carried back to the cathode. Hydrogen, charged and discharged, goes in the opposite direction. The work done by the electromotive force of the battery is not chemical decomposition, but it is this migration of the constituents of the fluids by which heat ought to be evolved. That heat, which is evolved by the migration of the ions, falls under the heat evolved by galvanic resistance, but the heat evolved by diffusion ought to be proportional to the intensity of the current. But before this stationary state of the current can be produced, electrolytic decomposition must go on till the required amount of gases is dissolved in the fluid, if there is not already from the beginning a sufficient quantity of one of the gases, viz., oxygen, of the atmosphere in solution. Here the thermodynamic inferences come into play, which I have developed lately from the law of *Carnot*. They show that a limited quantity of the gases can be produced electrolytically even by very feeble electromotive forces, till a certain value of density of the dissolved gases corresponding to the value of the decomposing force has been reached.

Out of these thermodynamic laws one can develop a complete mathematical theory of galvanic polarisation and its effects. As far as the accuracy of my measurements reaches, the facts appear to be in sufficient harmony with such a theory.

2. On Cosmic Dust. By l'Abbé Renard.

3. Esempio del metodo di dedurre una superficie da una figura piana. By Professor Cremona.

Scopo della presente piccolo comunicazione di mostrare con un asempio notevole, ed in connessione colla teoria conosciuta delle