

quires one. Moreover, schools of Pharmacy, Veterinary Science, Agriculture and Forestry, Mining and Engineering, and several other branches of knowledge have obtained a place within the shadow of the University. It is just announced that a Chair of Commerce has been established in the University of Edinburgh. It seems evident, too, that some of these will be advanced to the higher position of faculties, ere long, and others added, such as the Fine Arts, which have a faculty in the University of St. Louis; Mining and Engineering, Commerce and Manufactures, Agriculture, Naval and Military Science, Normal Instruction, and some other departments. A hopeful method of meeting the new exigencies, and one for which the old Mediæval Universities furnishes a precedent, would seem to be, for all these new faculties to be arranged around the central faculty of Philosophy or Arts, to which they should also be required to do homage, as the sheaves of Joseph's brethren did to Joseph's sheaf.

Another mode of meeting the new requirements, more especially of Physical Science, or *Practical* or *Applied* Science, as it is frequently called, is by the erection and organization of separate Schools, Colleges and Universities for this purpose. Already in Switzerland, in some of the smaller Kingdoms of Germany, such as Wurtemberg, with a population about as large as Ontario, and more especially in Prussia, have many of these Schools, Colleges and Universities been established. There are hundreds of Technical Colleges, and six or seven Technical Universities, in the countries I have named, and their equipment is on the most magnificent scale. The Real Schools of Prussia are just deemed as essential as the Grammar Schools, Gymnasiums and Universities. It is only lately that England, to her amazement, discovered her need of such institutions. She saw her sons utterly vanquished at International Exhibitions by the superior scientific skill of other nations, and had occasion to recall the wise words of Prince Albert: "No human pursuits make any material progress until science is brought to bear upon them." In Mr. Scott Russell's plea for the "Systematic Technical Education of the English people," he addresses the Queen in these touching words:

"The object of this dedication is to entreat your Majesty to consider the case of the uneducated English folk, who are now suffering great misfortunes in their trades, commerce and manufactures, as well as in their social, moral and intellectual condition, through having been neglected and allowed to fall behind other nations, better cared for by the men whose duty it was to lead as well as to govern the people."