

vastly increased its power and enabled man to gaze upon distant planets. The telescope extends his vision among the remote heavenly orbs, and he seems to hold converse with other worlds. Again the microscope makes us acquainted with myriads of animals, not discernable by the naked eye, and opens a new creation to one of our senses. By its aid thousands of fish-like animals are seen sport ing in each drop of our blood, and the fluttering pulsations of the mosquito's heart may be distinctly recognised. Nor are the phenomena of magnetism and electricity less surprising. Who can explain the causes of that attraction which points the needle to the north, and faithfully directs the mariner amidst storms, and darkness, to his "desired haven?" By the use of the compass, the remotest continents and Islands have been visited, civilization and christianity have been carried to the savage—the nations of the earth have entered into intercourse, and commerce has spread its influence even to the polar seas. Of the recent discoveries in electro-magnetism it is impossible to estimate the result. Already a power has been obtained similar to that produced by steam, and the day may yet arrive when instead of Steamboats, vessels propelled by electro-magnetic force may traverse the wide atlantic.

Chemistry is the science which makes us acquainted with the natural bodies that surround us. Its objects are inexhaustible, and essential to our wants, and the very existence of civilization. Without its aid mankind would be deprived of most of their comforts and luxuries, and the mineral, vegetable, and animal kingdoms would remain unexplored. To the mechanic some knowledge of the sciences is indispensable. The success of the arts of metallurgy, glass-making, dyeing, bleaching. The processes of brewing, baking, distilling, and almost every domestic operation, depend upon some acquaintance with its mysteries. In the medical science it is of the first importance, and now forms a part of the physician's and surgeon's education. In the true meaning of the word, mechanics signifies the art of making machines capable of being put in motion, by natural or artificial means, and as such machines must ever be in common use, and are adopted to a great variety of purposes, it is evident that to understand the laws governing the matter acted upon, is absolutely necessary.

The Professor of Natural Philosophy in the University of Glasgow, sent a broken model of a steam engine to the chief mechanic of the establishment to be repaired. The model was that produced by Newcomen, and was extremely imperfect.—In the course of repair it fell into the hands of James Watt, a

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