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#### NOTE AND COMMENT.



SINCE the completion of KNIGHT'S AMERICAN MECHANICAL DICTIONARY, in 1877, the progress made in the development of the mechanic arts is unprecedented in the history of the world. Not only in such striking and wonderful achievements as relate to the telephone, phonograph, and electric light, toward which popular attention is naturally drawn, but in every department of applied mechanics, there has been developed a fertility of resource in the adaptation of means to ends quite as

marvelous and equally important in practical results. Achievement has outrun the most sanguine expectation, and with such rapidity that even the most recent records are found to be very deficient in supplying the special information most desired.

The hearty approval which KNIGHT'S AMERICAN MECHANICAL DICTIONARY has received in all parts of the world has encouraged the Publishers to issue an entirely new volume, thus continuing the record from the date at which the former work went to press, but carefully avoiding repetition, and aiming to furnish not only a satisfactory supplement to the original work, but a book which shall have an individual and separate value as a complete record of half a decade in the history of invention. From this fact it is evident that this volume forms an indispensable supplement to all works of reference upon mechanics now extant, as none of them cover the period mentioned.

The same method has been adopted in dealing with the subject matter in both works. First, each article appears in its proper alphabetical place, thus fulfilling the function of a Dictionary, in affording direct response to inquiry. Second, the items of information thus distributed throughout the work are classified in Special Indexes of the Art, Profession, or Manufacture to which they pertain. The book thus fulfills the function of a Cyclopædia, which is a collection of treatises.

The value of a work of reference depends largely upon its Index. When one has a question to ask of an ordinary Cyclopædia it is frequently very difficult to determine under which title or heading to look.

The author has invented a system of what he terms "Specific Indexes" by the use of which the inquirer is guided straight to the information he is in quest of, even though he is entirely ignorant of the name of a thing, and have but the most vague and general notion of its use. This is accomplished by grouping under the general title of each Science, Art, Trade, or Profession a list or "Special Index" of every article in the book bearing any relation to the subject in question. The titles of these Indexes are in turn grouped at the beginning of the book, so that by a glance one may determine which clew to follow.

Besides the use above mentioned, these Specific Indexes afford the reader an excellent opportunity for investigating thoroughly all that pertains directly or indirectly to any special subject, by using the Index under the title of that subject as a sort of head-center, and following out its various branches through all their ramifications.

Special attention is called to a new and valuable feature in the work, by means of which exhaustive information on any subject is placed within easy reach. The author has made a complete Index to technical literature, covering a period of five years, and embracing all English and American technical journals published from 1876 to 1880 inclusive. Under title of each subject may be found a complete list of every article which has appeared, during this period, in the columns of these periodicals and as every subject of importance has been thoroughly discussed therein, it is evident that the whole range of recent investigation is thus placed at easy command. This Index cannot fail to meet with the heartiest appreciation among those who have experienced the labor and difficulty attending an exhaustive search upon any line of inquiry.

"Index-learning turns no student pale,  
Yet holds the eel of science by the tail,"

The work treats of many thousand subjects and is illustrated with over 2,500 carefully prepared engravings and numerous full-page plates, and for general typographical excellence, quality of paper, and printing it is unsurpassed. HOUGHTON, MIFFLIN & Co., Boston, Mass.