we can trust in Him,—that He is good before we can love Him. All these attributes, the study of His works had made known before He gave that more perfect knowledge of himself with which we are blessed. Among the Semitic tribes his names betoken exalted nature and resistless power; among the Hellenic races they denote his wisdom; but that which we inherit from our Northern ancestors denotes his goodness. All these the more perfect researches of modern science bring out in ever-increasing splendour; and I cannot conceive anything that more effectually brings home to the mind the absolute omnipresence of the Deity than high physical knowledge. I fear I have too long trespassed on your patience, yet let me point out to you a few examples. What can fill us with an overwhelming sense of His infinite wisdom like the telescope? As you sound with it the fathomless abyss of stars, till all measure of distances seems to fail and imagination alone guages the distance; yet even there as here is the same divine harmony of forces, the same perfect conservation of systems, which the being able to trace in the pages of Newton or Laplace makes us feel as if we were more than men. If it is such a triumph of intellect to *trace* this law of the universe, how transcendent must that Greatest over all be in which it, and many like it, have their existence! That instrument tells us that our globe and we are but a speck, the existence of which cannot be perceived beyond our system. Can we then hope that in this immensity of worlds we shall not be overlooked? The microscope will answer. If the telescope lead to one verge of infinity, *it* brings us to the other; and shows us that down in the very twilight of visibility the living points which it discloses are fashioned with the most finished perfection,—that the most marvellous contrivances minister to their preservation and their enjoyment,—that as nothing is too vast for the Creator's control, so nothing is too minute or trifling for His care. At every turn the philosopher meets facts which show that man's Creator is also his Father, —things which seem to contain a special provision for his use and his happiness:—but I will take only two, from their special relation to this very district. Is it possible to consider the properties which distinguish iron from other metals, without a conviction that those qualities were given to it that it might be useful to man, whatever other purposes might be answered by them? That it should be ductile and plastic while influenced by heat, capable of being welded, and yet by a slight chemical change capable of adamantine hardness,—and that the metal which alone possesses properties so precious should be the most abundant of all,—must seem, as it is, a miracle of bounty And not less marvellous is the prescient kindness which stored up in your coalfields the exuberant vegetation of the ancient world, under circumstances which preserved this precious magazine of wealth and power, not merely till He had placed on earth beings who would use it, but even to a late period of *their* existence, lest the element that was to develope to the utmost their civilization and energy might be wasted or abused. But I must conclude with this summary of all, which I would wish to impress on your minds —that, the more we know His works the nearer we are to Him. Such knowledge pleases Him; it is bright and holy, it is our purest happiness here, and will assuredly follow us into another life if rightly sought in this. May He guide us in its pursuit; and in particular, may this meeting which I have attempted to open in His name, be successful and prosperous,—so that in future years they who follow me in this high office may refer to it as one to be remembered with unmixed satisfaction!

IMPORTANCE OF SCIENTIFIC KNOWLEDGE TO PRACTICAL MEN, AND OF PRACTICAL KNOWLEDGE TO SCIENTIFIC MEN, BEING THE SUBSTANCE OF A LECTURE DELIVERED LAST WINTER BEFORE THE MECHANICS' INSTITUTE IN TORONTO, BY J. HURLBURT, M. A.

(*Concluded from page 273.*)

We are placed in a world where a vast multitude of objects—animate and inanimate—arrest our attention. Whether we walk abroad upon the surface of the earth amidst its mountains and valleys, its forests and plains, or penetrate into its bowels, or examine its oceans and rivers, or turn our eyes to the surrounding atmosphere and the vault of the starry heavens,—we are overwhelmed by the contemplation of the immensity of the works of the Almighty, differing not more in their number than in their variety, from the atom to ponderous worlds, from the insect sporting in a drop of water through all the gradations of animate life up to man and to angels. Science is a knowledge of the laws which govern the material and immaterial worlds. These laws can be ascertained only by the discovery of a vast number of facts; from observations, comparisons and deductions, by observers placed in various circumstances and positions. All science, indeed, may be reduced to facts, and, therefore, every man whose organs of sensation are in a sound state, is capable of observing the elements of science. That one man excels another in the discovery of truth, is chiefly owing to his mind being more particularly directed to the contemplation of certain objects and relations. Many important scientific facts require only a certain combination of circumstances. If at the time of the observance of a fact, the attention has been directed to subjects connected with that fact, it may lead to important discoveries. All facts occur in accordance with some established law of natare; such fact is, therefore, an illustration of that law, and may lead to its discovery. An accidental experiment of a boy led to the invention of the telescope. The observance of the fact that water could rise to only 32 feet in a vacuum—led to the discovery of the weight of the air, the construction of the barometer, and the true principles of the pump. The swinging of a chandelier attracting the attention of Galileo at a time when his thoughts were directed to similar subjects, resulted in the discovery of the principles of the pendulum. The falling of an apple at a favourable moment, directed Newton's thoughts to the laws of gravity, and the mo-