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Miscellaneous Articles.

THE BOOK AND ITS SUBJECT.

(Concluded from page 197.)

The Railway Suspension Bridge at Niagara Falls is a wonderful triumph of engineering skill; the span from bank to bank exceeds, we believe, seven hundred feet; the great river rolls, more than two hundred feet below in surging, foaming, thundering, rapids, that sweep along at the rate of fifty or sixty miles an hour. Four immense wire cables stretch across huge square pillars, built of solid masonry, on either side, and are anchored at the ends, deep in the breast of the rock. From these cables numerous iron rods drop at different angles, that support the road-way for the rails; and the perpendicular iron bars bolted to this and interlaced with multitudes of cross stays sustain the carriage-way beneath. It is a marvellous achievement of mechanical genius; light, graceful, beautiful in appearance, and yet withal so firm and strong that a railway-train crossing causes in it scarcely any sensible vibration. As we stood some time ago on the centre of this bridge, on a glorious autumn day, and obtained from it our first view of the majestic cataract above, we experienced a thrill of emotion which we can never forget. We felt we were gazing on one of the grandest of the works of God, and witnessed here beside it one of the greatest triumphs of human skill the world has ever seen. While we looked on the noble structure, in the complexity of its parts, and its harmony as a whole, we could not help thinking with ourselves what evidences of mind are here, what proofs of design, what wonderful contrivance, what laborious calculations, what beautiful adjustments, what exquisite combinations, so that these great waterfalls, roaring beneath, are bridged over, and the people of two vast countries have a safe path-way for the interchange of their commerce and courtesies of life. It is a work this that bears the impress of the highest mechanical genius, and the names of the American engineers who designed and executed it will be known to history, for an achievement of skill over difficulties which even an age of invention had pronounced unsurmountable. Suppose now that through a period of fifty years previous to the erection of this bridge a series of tracts had issued from the press in America, assuring the nations it would certainly be constructed, giving first a general sketch of its plan, then furnishing minute details and drawings of it, till at length the work was actually commenced and completed, by its designer in person,—suppose that these tracts in order, had borne the names of a number of humble youths at school, as their penmen, but all had contributed to develop the idea of this w
contrivance—who could have doubted for a moment,