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## The Barp of 3,000 Strings.

EW, if any of us, in the course of our daily existence,

hearing the voices of friends, the songs of the birds, the deep rolling of the thunder or the sweet and measured strains of a musical instrument, ever spare a single thought to the marvellous mechanism that transfers these sounds from external nature to the human brain and makes them part of our conscious existence. And of those who do give the subject any consideration, the greater part look upon the phenomenon much in the same light as they regard a feat of legerdemain or jugglery. Now a piece of legerdemain appears marvellous because a result is achieved apparently without any cause, or when the cause seems inadequate to produce the result, or when there is a seeming irrelevancy between cause and result. In the phenomenon of sound and hearing none of these conditions exist; and, unlike the tricks of the juggler which lose their charm when the method of their accomplishment is known, the production and propagation of sound, the mechanism of the ear and the phenomenon of musical sound gain an added charm and cause increased wonderment and pleasure when thoroughly understood and appreciated.

To explain the production and propagation of sound, to explain fundamentally the physical theory of music, to describe the complex and marvellous construction of the human ear by which mere vibrations of matter are carried, with all distinctions of pitch, intensity and quality, to the brain, there to be translated