

ABSTRACT OF THE DISCLOSURE

A musical tone synthesizing apparatus synthesizes musical tones by simulating the tone generation construction of a plucked-string or struck-string instrument. The apparatus has a loop circuit which simulates a vibrating element of the instrument, an excitation circuit creates an excitation signal corresponding to the excitation given to the vibrating element in response to the operation of operators such as a pick or a hammer or the state of the generation body and a memory which stores a non-linear relation between the operator and the vibration element. The excitation signal circulates around the loop circuit and is delayed by means of a delay circuit with a previously determined delay interval, and is fed back into the excitation circuit as the state of the vibrating element. To realize a variety of sounds depending upon characteristics of the operator, such as the shape and hardness of the pick or the hardness of the hammer, a readout value of the memory, which is read out according to such characteristics, is supplied to the loop circuit.

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