

applies to pianofortes of to-day, the main difference being that our instrument possesses keys controlling the hammers, whereas the dulcimer players keep the hammer-sticks in their hands, and do not depend upon mechanism to strike the strings. The principle of tone production is identical in both cases. The dulcimer under various names is still popular, and is to be found in every civilized country.

It is certain that a keyboard was known to the Greeks and Romans, for their so-called Water Organs were furnished with keys for the fingers. In all probability this simple device of a balanced lever passed out of mind in consequence of the troubles and darkness which ensued on the invasion of Italy by the Goths and Vandals in the early Christian era. Art and learning died; they did not revive from their long sleep until hundreds of years after the sacking of Imperial Rome. The lever key, one end for the finger and the other for the hammer, had to be re-invented. In the case of the clavier instruments strung with catgut or wire, two distinct types of mechanism were employed. One, derived from the action of plucking the string of the harp by the finger, gave us the virginal, spinet, and harpsichord; the other, following the practice of the dulcimer players, took the form of a metal 'tangent' by way of hammer, which struck a blow, and so caused the string to sound. But the vibration did not last long, the string was not free—it was held tight so long as the finger held the key down; thus the tone was feeble and evanescent. A different effect was obtained from those instruments where the string was plucked; here a simple mechanical contrivance termed a 'jack,' furnished with a piece of leather or quill attached to its