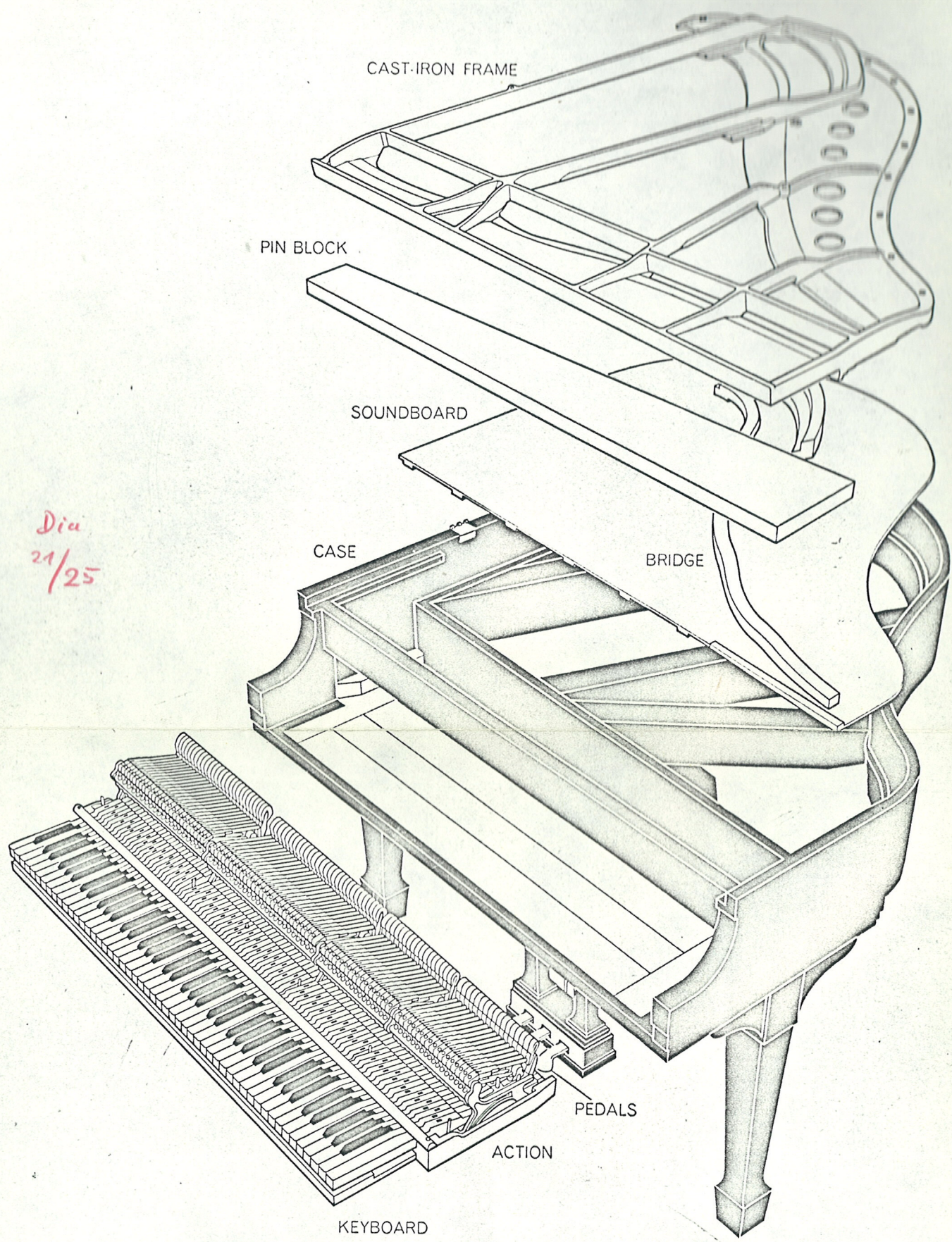


Vort
1965
Blackham



Dia
21/25

EXPLODED VIEW of the baby-grand piano depicted from above on the preceding page shows the relations of several main components. The keyboard (*bottom left*) has 88 keys divided into seven and a third octaves. Each octave has eight white keys for playing the diatonic scale (whole notes) and five raised black keys for playing the chromatic scale (whole notes plus sharps and flats). Connected to the keyboard is the action, which includes all the

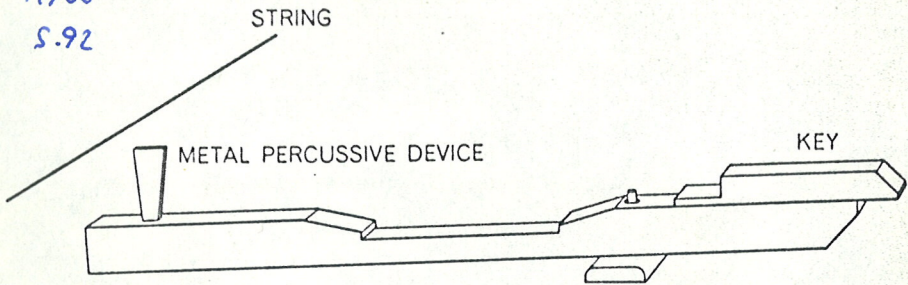
moving parts involved in the actual striking of the string. Three pedals (*bottom center*) serve to control the dampers in the action. When a key is struck, the hammer sets the strings in vibration and, after a very short interval known as the attack time, sound is translated by means of a wooden bridge to the soundboard, from which it is radiated into the air. During the attack time sound is also radiated to a lesser degree from both the strings and the bridge.

Viol

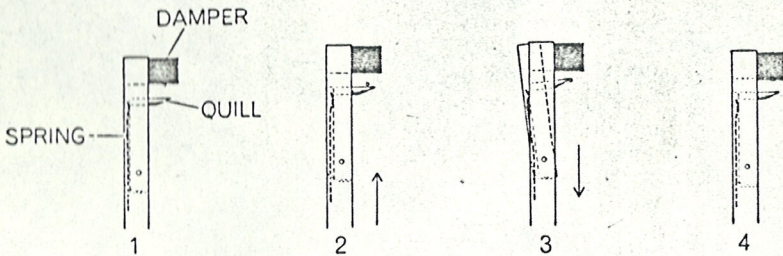
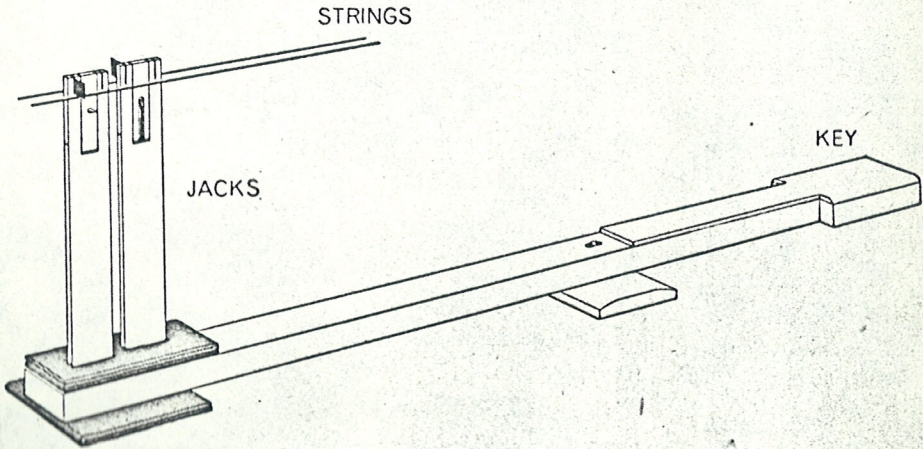
Blackham

1965

S.92



CLAVICHORD ACTION included one essential feature found in all modern pianos: a percussive device for setting the strings in vibration. A piece of metal mounted vertically at the end of the key acted both as a bridge for determining the pitch of the string and as a percussive device for producing the tone. Since one string could be used to produce more than one tone, there were usually more keys than strings. A strip of cloth was interlaced among the strings at one end to damp the tone from the shorter part of the string.



HARPSICHORD ACTION was capable of producing a louder tone than that of the clavichord, but, unlike the clavichord, it did not allow for the execution of dynamics, that is, for playing either loudly or softly. The strings were set in motion by the plucking action of a quill mounted at right angles on a "jack" at the end of the key. When the key was depressed, the jack moved upward and the quill plucked the string. When the jack dropped back, a piece of cloth attached to it damped the vibration of the string. The stratagem of using more than one string per note was adopted in the harpsichord in the 17th century.

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