Description of the Emanuel Moor Double Keyboard Pianoforte

*The Emanuel Moór piano differs from the usual single-keyboard instrument in the following ways:

- (1) It has two keyboards one immediately behind and above the other. The upper keyboard is about one key thickness above the lower. Both are matched note by note throughout their whole compass, apart from the twelve highest keys of the lower keyboard. The upper keyboard is pitched an octave higher than the lower. (Patent No. 151549).
- (2) A third or middle pedal provides octave coupling facilities. When this is used the lower keyboard sounds in octaves. The upper keyboard is not affected in any way.
- (3) †By means of small ivory-covered steps, the back of each white key of the lower keyboard is built up to the same surface level as that of the adjacent black keys. These steps are about half an inch long and were called 'hummocks' by Professor Tovey. They have several uses:
 - (i) It is now possible to play chromatic glissando passages (in single notes or in octaves by using the coupler!)
 - (ii) They can act as 'stepping-stones' from one keyboard to the other.
 - (iii) Under some conditions they make it far more comfortable for the hand to play on both keyboards simultaneously. (See Patent No. 161549).
- (4) As in the normal instrument, the keyboards are horizontal, but the keys themselves are inclined to one another at these angles:

FRONT WHITE KEYS:

 $1\frac{1}{2}$ degrees slope down from horizontal from front to rear.

FRONT BLACK KEYS:

 $2\frac{1}{2}$ degrees slope down from horizontal from front to rear.

REAR WHITE KEYS:

7 degrees slope upwards from horizontal from front to rear.

REAR BLACK KEYS:

 $6\frac{1}{2}$ degrees slope upwards from horizontal from front to rear.

^{*} For an excellent account of the facilities offered by the Moór Double Keyboard Piano see Emanuel Moór by Max Pirani pages 100 and 101. H.S.

[†] On page 285 of *The Piano Forte* by Rosamond Harding (C.U.P.), we read: 'Hewitt of London invented in 1844 a modification of the existing keyboard which was invented to facilitate the playing of chromatic scales. It consisted of raising up the back portion of the white keys to the level of the black to avoid the uncomfortable depression between the black keys.' (English Patent No. 10, 385 of 1844 by Daniel Chandler Hewitt.) H.S.

- These angular adjustments of the keys make it easier to play on the two keyboards simultaneously.** (Patent No. 367908).
- (5) Some early examples of the Moór Double Keyboard Pianoforte were fitted with a stop which, when operated, produced a harpsichord-like tone. (In the later models this was discontinued.) (Patent No. 176362)

The facilities outlined above are brought about by means of a duplex mechanical linkage between the two keyboards and a single action with its single set of hammers and dampers.† Acoustically the Moór Double Keyboard Pianoforte follows the usual manufacturing techniques. (Emanuel Moór's modifications were entirely mechanical, not acoustical.) The instrument has only one set of strings and one sound-board.

^{**} Fig. 6, a tracing from the drawings included in the Patent Specification [No 367, 908], shows the section through two slightly different double keyboards. Emanuel Moór, in his patent specification, clearly shows a preference for the angles shown in the lower of the two drawings.

[†] So much nonsense was written about Emanuel Moór's pianoforte during the 1930s by over enthusiastic journalists and musicologists that it is necessary to stress the fact that the Moór Pianoforte is in no sense of the term a 'Double Instrument'.