WELTE-MIGNON

TEST ROLL

98

DESCRIPTION
OF THE VARIOUS FONCTIONS OF THE TEST ROLL 98

1. Tempo Regulating.

If the tempo lever is set on one of the marks of the indicator, the tempo is properly adjusted when the paper moves within half a minute from the starting bass note "A" to the cross lines marked on the roll with the corresponding number of the indicator. If this is not the case, there are 6 regulating screws next to the tempo slide for each of the 6 movements, by which they can be adjusted separately. Begin with regulating the slowest movement with screw marked 20 and continu with screw 40, 60, 80 etc. as it is marked in the test roll.

2. Adjusting of the pianissimo touch.

The regulating bellows "R" is connected with the regulating valve "K" by a small chain "B". By means of a leather bottom "M" at the end

of the chain, this connection can be shortened or lengthened. When slightly shortened ⟨the leather bottom "M" to be screwed up⟩ the stroke of the chord will be some what louder, when lengthened ⟨screwed down⟩ it will be softened.

The chord of the bass should be a trifle softer than the chord of the treble.

Every note of the chord must touch the string quite softly but hearable.

3. Regulating the slow movement

⟨Crescendo f and crescendo p movement⟩

of the expression bellows "N".

Crescendo forte: The pin „S" of the expression bellows "N" must touch the hook "H" of the mezzoforte bellows at just the moment the tone in the test roll strikes. If the movement is too slow, unscrew a trifle the screw marked "Crescendo F", if too fast, screw it in a trifle.

Crescendo piano: The expression bellows "N" must just be quite opened, when the next tone in the test roll strikes.

If the bellows opens too slow, unscrew a trifle the screw marked "Crescendo P", if it is too quick, screw in the same a trifle.

Take notice that by altering the screw "Crescendo P", the forward movement of the "Crescendo F" is also altered and must again be adjusted and compensated.

4. Regulating the fast movement.

⟨Forz. f. and forz. p. movement.⟩

Forzando forte: The expression bellows "N" must move exactly as high up as the position of the mezzoforte hook "H", and must return every time to its original position by forz. piano.

If the expression bellows "N" does not reach the mezzoforte position, unscrew the screw "Forz. F" a little, if it goes up too high, screw in the same screw.

Forzando piano: The fast backward movement ⟨forz. p.⟩ of the expression bellows "N" is tested by the next 3 movements.

1st movement: The expression bellows collapse entirely and is released by the forz. piano. The bellows must open **at once completely**, if not, unscrew the screw marked Forz. P.

2nd movement: The collapsed expression bellows is released by a short perforation of forz. p., but must **not** open **at once com-**

pletely, it must leave some lines to go back slowly. If it returns too far, screw in the screw "Forz. P."

Try again the first movement whether it has not altered by adjusting the second movement.

3rd movement: The expression bellows "N" collapses entirely and is released by 3 single holes of forz. piano ⟨combined with crescendo forte⟩. The effect has to be that the moment, the **3rd hole** of forz. piano has past, the expression bellows **is just quite open.** The **2nd hole** must **not yet** open the bellows **totaly.** If the 2nd hole already stretches the bellows completely, then the bleed hole of the forz. piano diaphragm is too small, if the 3rd hole does not bring it down, the same bleed hole is too large.

Be sure that the changing of the size of the bleed hole does not alter the first and second movement.

5. Testing the release from fortissimo touch to piano touch.

The first note must strike in fortissimo, 2nd 3rd and 4th in pianissimo, the 2nd slightly louder

than the 3rd and 4th. If the 2nd note is rather loud, then the suction in the regulating bellows "R" is not released quickly, and does not drop down quick enough. Then open a little more the felt which closes the hole underneath the movable board of the little release bellows. This little bellows is worked by the valve "Forzando P." in the expression box.

6. Testing single hole forzandos

⟨combined with Crescendo piano⟩.

The expression bellows "N" must move during these short forzando movements from pianissimo position until its pin "S" touches with the last hit the mezzoforte hook "H". Should the expression bellows not reach the mezzoforte hook, then the bleed hole of the Forzando F valve is too large; should it pass the hook, the bleed hole is too small. Make sure that by altering the bleed hole the regulating Nr. 4 is not changed.

7. Testing the Mezzoforte hook.

The spring on the mezzoforte bellows "G" must be strong enough to open the bellows,

even when the pin of the expression bellows "N" press against the hook "H".

On the other side, the spring must not be so strong to prevent the mezzoforte bellows to collapse properly. Be sure that the leather on the hook is polished with black lead to prevent too much friction for the pin of the expression bellows.

8. Adjusting the movement of the soft pedal.

Beginning and ending of each movement is marked by the stroke of notes cut in the roll. ⟨The soft pedal in Grands is produced by shifting the whole keyboard sidewards; ascertain that there is no dirt underneath the keyboard which causes too much friction and prevents the movement.⟩

9. Testing of the loud pedal.

The first movements cut into the roll show to the listener, whether the dampers are damping quick enough, the second movements show whether the dampers are lifting quick enough.

In the first instance, the dampers are lifted with the note in the roll, drop shortly before the ending of the note, and are lifted again shortly after the note has past. The sound of the note must be damped promptly, and no more sound heard although the dampers are lifted again. If it does not cut off quick enough, then shorten the movements of the dampers, that means do not have them lifted so far off from the strings, they will then be back quicker.

In the second instance, if the dampers are lifted too slow, it misses the short notes. In this case, avoid any dead way between the pedal bellows and dampers, so to procure a proper attack.

10. Testing of the stopping device:

The movement of the music roll is stopped by the same hole in the tracker bar that works the Forzando P. valve in the bass. To work this Forzando P., only **short** perforations are used, to work the stopping of the movement of the roll, a **long** perforation is needed. For this purpose, a release bellows with a considerable dead movement is provided, so that

the short perforations for Forz. P. are lost in the dead movement, and only a long perforation of a certain lenght releases the mercury contact.

To regulate the movement of the release bellows, a regulating screw on the bellows is provided for to adjust the movement of this bellows to the proper speed. For this purpose the test roll has two perforations of different length, the first one, smaller, shall **not** release the contact, the second, longer, must release same.

If the smaller hole already releases the contact, screw **in** the regulating screw, if the longer one does not yet release it, **unscrew** same.

11. Repetition of the notes:

To try the repetition, push the expression bellows half way to mezzoforte ⟨in pianissimo it would miss the notes⟩. If you notice that a hammer makes the tremolo **close** to the string the bleed hole of its valve is too small. If it makes the tremolo **distant from the strings** not reaching same, the bleed hole of its valve is too large.

12. Testing of the resistance.

It is hardly necessary to say that when playing fortissimo, a larger quantity of suction is necessary than when playing pianissimo parts. Therefore the electric motor must run faster in playing fortissimo than it is necessary when playing pianissimo.

The speed of the motor can be altered by a special resistance. If there is more resistance put on, the motor will run slower, if less resistance, the motor will run faster. For this purpose, our resistance is provided with 2 regulating buttons, one for the slow movement ⟨green⟩, and one for the fast movement ⟨red⟩. In normal play ⟨piano to mezzoforte⟩, the green button is in action, in forte play the red one; both are controlled automatically by the instrument itself. For this purpose, a small bellows with a mercury contact on it, is provided for, which in its rest position ⟨piano to mezzoforte⟩ is open, and then connected with the green button. As soon as the instrument is playing forte, this mercury bellows is exhausted, the mercury contact closed, and in this position connec-

ted with the red button, thus cutting of the resistance between the green and red buttons; consequently the motor runs quicker. By altering the position of these 2 buttons, it is therefore possible to regulate as well the slow speed for the normal play, as the higher speed for the forte play. In moving the buttons towards the binding-screws (bearing the electric wires) the respectif speeds will be higher.

These two speeds of the motor can be regulated according to the current at disposal and the requirements of the instrument. The main object of this regulation is to ascertain that the motor is producing in its normal play only as much suction as necessary for playing properly, and that it does not work too fast, as it would only produce unnecessary noise, thus disturbing the fine effects of the pianissimo.

The motor has its rigth speed in normal play when the suction reservoir next to the pumping box is exhausted, slightly opening the valve without making too much noise, remaining in general during the play in this position, only sometimes allowing for a few moments to fall back a little, quick recovering afterwards.

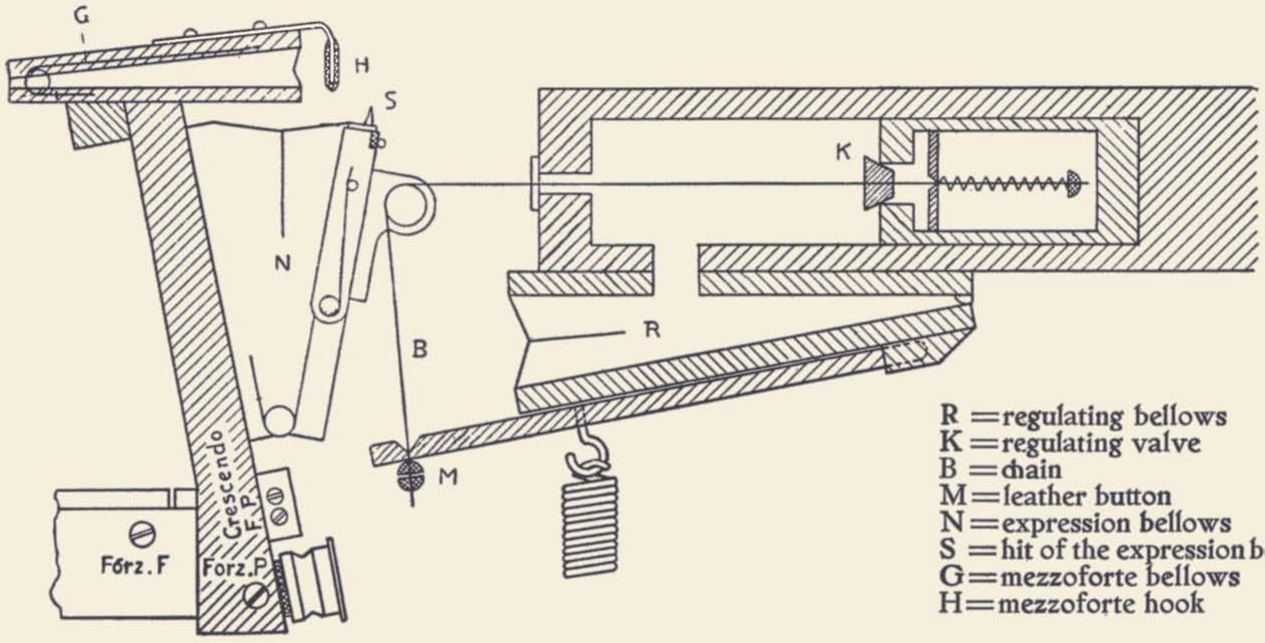
In forte play, the speed of the pumping device must also be thus, that the main reservoir is kept exhausted during playing. Do not make it run faster than necessary, thus avoiding to work noisy.

To place the two adjusting buttoms in right position, **play a big roll with great fortes in it,** and watch the suction reservoir, if it does not fall back too far, and keeps on being exhausted.

To be sure that at "normal position" of the mercury bellows the motor does not work too fast, push the respective adjusting button ⟨green⟩ so far away from the cable-end that the reservoir falls back during playing, thus proving, that the motor works **too slow.** Push the adjusting button so far back again that the motor runs at right speed in "normal play", and you will have the pumping device as noiseless as possible.

Do the same with the adjusting screw for "forte position".

Scheme



R = regulating bellows
K = regulating valve
B = chain
M = leather button
N = expression bellows
S = hit of the expression bellows
G = mezzoforte bellows
H = mezzoforte hook