

J. A. Knam Tafelklavier, Wien c.1815

By Andrew Nolan



I saw this piano for auction in Pennsylvania where it had been a display piece belonging to Germantown Museum. Therefore it was probably an heirloom of German settlers in Pennsylvania in the early 19th century.

The piano was shipped to Australia, upside down as the leg blocks were unglued, but may also because it was going 'down under'! It was received in good order and I set to work.

Joseph Anton Knam appears to have been active in Vienna from 1810 to 1830 and is credited with introducing triple stringing in the treble of square pianos. He seems to have only built square pianos. The current example is a 6 octave instrument with Viennese action and 'box' damping. The case is pine, veneered with vertically laid bookmatched walnut veneer stained to resemble mahogany. The instrument stands on 4 screw-in conical legs with gilt plaster capitals in neoclassical style.



This instrument is an example of a square piano where the strings run from the left front corner to the right back corner unlike English and French instruments where the converse is true. It is as if a spinet type layout was contained in a rectangular box. This layout has the advantage of having the pinblock over the keyboard, acting as an important strut to the case.

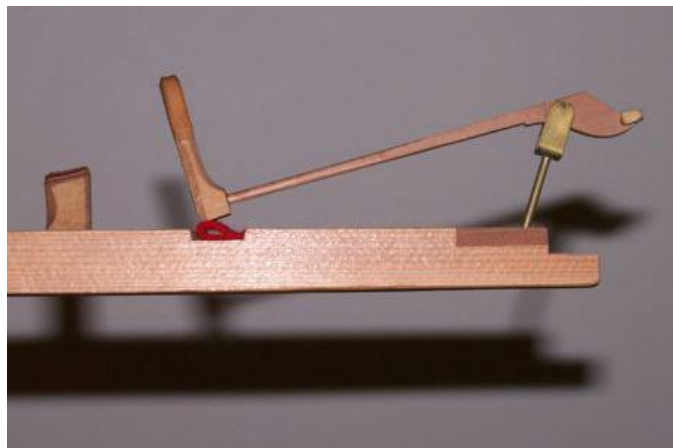


The hammers are hinged so that they face the player and rise up through the gap behind the pinblock, just as in a grand Viennese fortepiano. The majority of the strings are original and the instrument is largely bichord except for the top octaves which are trichord. The action is positioned and raised up behind the pinblock by a sled which contains ramps. There is a moderator and there was a third stop after the dampers, which after some detective work was judged to be a bassoon stop. The pedal lyra and the levers for the moderator and bassoon were missing.

The strings are hitched onto a wooden plated at the right side.

Although the piano was in good condition it suffered from the following problems:

-loose leg blocks - these were cleaned and reglued.

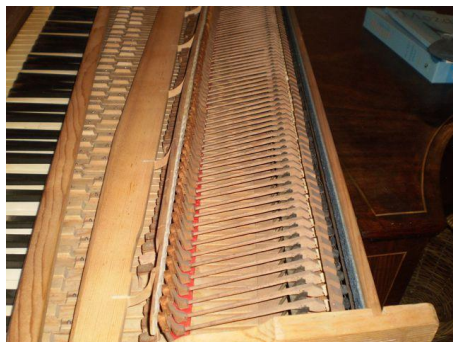




Action

The action is removed from the instrument by drawing forward CAREFULLY on the blocks at the side of the keyboard. This causes the sled to pull out from the keyboard, dropping the action. A risk with Viennese actions is for a hammer which remains partly up to jam on the back of the pinblock and be broken off. For this reason, the hammers are inspected before drawing out the action.

[Ed. note: VERY wise counsel: also applies to most grands, and the 'extra notes' of English squares.]



The action was delicately and beautifully made but suffered from the usual problems:
-moth eaten cloths in the action - hammer rests, back cloth, pawl rail cloth. Existing cloth was carefully matched to available wool baize samples and replacements made in the same fashion as original, for example the pawl rail cloth consisted on several layers sewn onto paper backing which was glued to the back of the over rail.

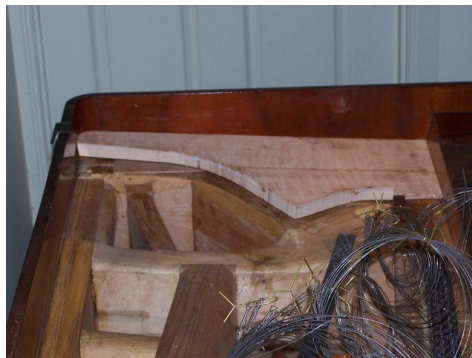
-broken pawl hinges - vellum (meant for cricketbat handles) was carefully thinned and the hinge rail prised apart a little, with the help of some hot water and a syringe the broken fragment was able to be removed and the pawl with its new hinge reinstalled

- damper wire holes on the pinblock had to be rebushed, this proved to be tricky and eventually leather buckskin punchings were used.
- beak leather on several hammers had to be replaced with buff leather of the correct consistency



Hitchpin Block

-the hitchpins had split the hitchpin block and hence tuning the instrument to pitch could not occur. In this design this part is under enormous tension hastening its failure. The whole part was carefully copied and the pin holes redrilled after marking the originals on tracing paper. The original hitchpins were reused where possible. I took the liberty of 'improving the design of the hitchpin plate. The original was made from oak with a maple veneer cap laid perpendicularly. I was not able to reuse the cap veneer as it was heavily split and fragmented. A new plate was constructed from a laminate of beech and several layers of rock maple with the grain running at right angles. It was quite difficult to fit this piece and finally reglue it. Under the plate the pine frame had been split by hitchpins and a section was routed out and patch installed.





Before working on the hitchpin block the instrument was detensioned and the strings slipped off the hitch pins. As I did not wish to remove the tuning pins I arranged the strings in sets with wires run through the hitch eyes in order and coiled up out of the way but with as little kinking as possible.

When the work on the hitchpin block was complete the strings were refitted to the hitchpins and tensioned. The yellow tapes glued to the leading edge of the hitchpin block and damping the strings had been washed and were reused.

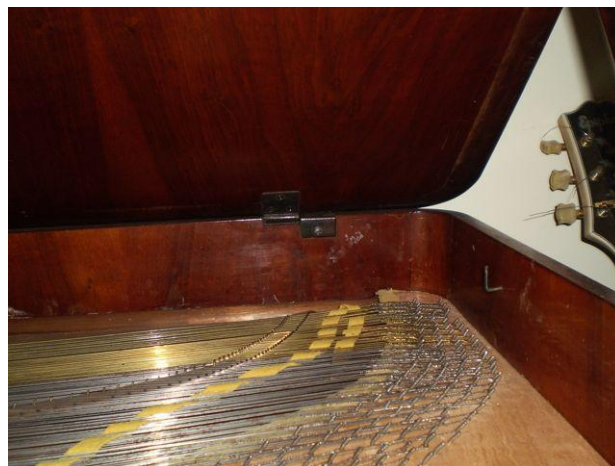
Soundboard

-while the hitchpin plate was out splits in the soundboard were noted, so it was removed and rebuilt using the original ribs. Interestingly the soundboard was made in 2 pieces. In order to dismantle the ribs and remove the bridge safely undiluted ethanol was first used to desiccate the glue joints and these were carefully 'cracked' off using a spatula. The remaining joints were soaked loose and the components marked, their locations marked and then everything was dried. Before reassembly of the ribs the soundboard was dried using a fan heater in a 'tent' to shrink it and impart a crown to the assembly.





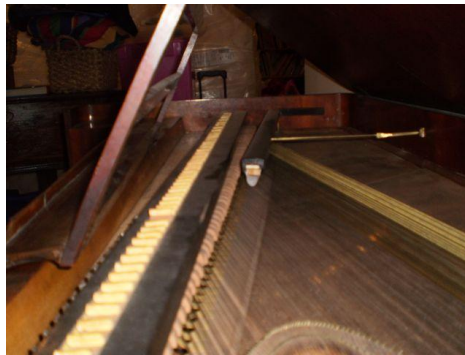
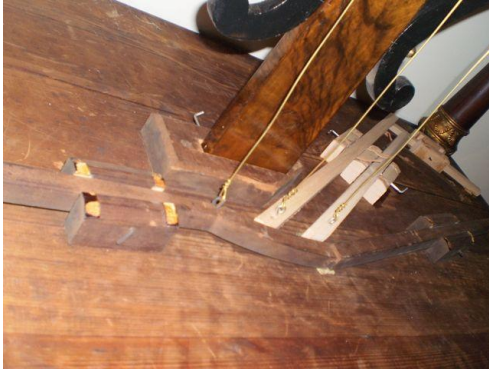
Note from the slide-off hinge that even in this small Viennese Piano the lid is designed to be able to be removed for in-home concerts. One can imagine Schubert using such instruments in the houses of his friends.



Dampers

- the dampers used soft buff leather and with the shrinkage of the case over time the pads no longer contacted the strings. Instead of shortening the damper wires new pads from soft buff leather were fitted.

- A replacement pedal lyra was constructed using that on another Knam instrument as a pattern. A bassoon stop was reconstructed using existing screw holes and the sticker hole.



After tuning and allowing the case to settle this instrument is playing once more. It is quite capable of playing technically demanding music as demonstrated by a visiting well-known fortepianist playing Beethoven's 'Appassionata' sonata on it but is suited for a domestic environment as the sound is reflected back to the player. It is essentially a grand Viennese fortepiano in miniature, with a gruff bass, ringing treble and very wide dynamic range. The small hammer heads naturally do not give a 'Romantic' sound but are well suited for the classical Viennese composers. These instruments continued to be made with Viennese action in this configuration into the mid 19th century, with perhaps the necessary refinement of a metal hitchpin plate. They appear on German eBay from time to time.

-Andrew Nolan
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