A rough introduction to harpsichords by type

Did you ever experience a scene where you thought “Why? Is this a harpsichord, too?” The keyboard instrument in front of you may be a piano or a harpsichord or even something else...
It is pretty difficult to know exactly what it is.
If you can tell which is which at a glance, you must be a connoisseur.

Before “pianos” were invented, keyboard instruments could be roughly classified into three categories according to the sounding mechanism:
- **Organ (wind-actuated instrument)**
- **Harpsichord (plucked string instrument)**
- **Clavichord (struck string instrument)**

What is a harpsichord first? - Definition of the harpsichord –

Sometimes a word harpsichord is used as a collective term of keyboard instruments which make sounds by plucking the strings (plucked string keyboard instrument) and is also used to refer to grand-type instruments among plucked string keyboard instruments.

Two instruments greatly concerned the birth of the harpsichord.
One is a psaltery that came from the east to Europe around the 9th century.
Troubadours and people at church used psalteries.
A psaltery has following structure: metal strings are set on the resonance box and tuning pins adjust the tension of the strings, and the vibration is transmitted to the soundboard through the bridge to amplify the sound.
A feature of this instrument is that you can play the psaltery in various postures like holding it in a chest and putting it on knees or a table.
You’ll often see angels holding triangle instruments in religious paintings drawn in the Middle Ages; that’s the psaltery.
Psalteries played with a bow appeared later, and are called “bowed psaltery” to separate from the one plucked with fingers.

Psaltery
From IROM BOOK GAKKIPEDIA, picture book of musical instruments
The other is an organ. It is thought that the original form of organs existed before Christ and was brought to completion in the 1st century. An organ has the same sounding mechanism as that of a wind instrument (aerophone): it makes sounds by sending pressed air to the pipe chosen at the keyboard. Today, it is called a pipe organ to separate from electronic organs.

Pipe organ
From IROM BOOK GAKKIPEDIA, a picture guide of musical instruments

A harpsichord was born applying the organs' sounding mechanism to psalteries, which you use a keyboard for handling strings. The birth of a harpsichord moved the stage of the music that had been owned by troubadours and the church to the salons of aristocrats. Then, harpsichords colored the baroque era (1600 – 1750) brilliantly.

Harpsichords are said to be born in Italy, developed in Netherlands, and spread to France, Germany, and England. The baroque music had different styles depending on the country. Correspondingly, the keyboard instruments such as harpsichords and organs had a variety depending on the country.

Each name of plucked string keyboard instrument is often mixed with the others. That is because the instruments weren’t named by form but named differently in each country.

Here, we’ll see the instruments separately according to the “classification by form” that is most used today: clavicytheriums, clavichords, harpsichords, spinets, and virginals.

**Note:** As mentioned above, the definition of each name is ambiguous; the classification is not absolute. Please understand that the classification under these names is relatively used.
Clavicytherium

This is the oldest form of harpsichords. The New Grove Dictionary of Music and Musicians wrote that Hermann Poll, an Austrian, invented an instrument with 40 keys called ‘clavicembalum’ in 1397.

We told you already that the harpsichords were invented based on pipe organs; you can see the structure remain in a clavicytherium that is an upright harpsichord equipped with a vertical soundboard and 38 keys.

This principle to conserve space was succeeded to the later upright pianos. Because it is upright, the jack moves horizontally and doesn’t return to the rest position by its own weight. For this reason, it needs a device to change the vertical movements of the springs and the keys to horizontal ones. As a result, it has a demerit that the touch is heavier and the action is slower than ordinary harpsichords.

Harpsichord

Owned by Hamamatsu Museum of Musical Instruments
1646 Francesco Marchioni
Here we'll regard the grand type as a “harpsichord”. Harpsichords vary a lot depending on the model. They vary having single keyboard, double keyboards, and infrequently triple keyboards, and the number of the keys varies from 48 to 72.

Because they made the body grand (this type is also called Flugel (wing)), it enabled the wide register along with the big body.

Also about the harpsichord, the most different point from spinets and virginals, which we'll see later, is that you can change the number and combination of the strings that are played at a time in response to music. Because the string of many elaborate harpsichords are not one per key but two or three, you can choose the number and the combination of strings from playing only one string to two or three strings at a time by handling a switching device called "coupler." (There are a few types of couplers depending on handling ways such as the one you handle by levers using hands and knees, and others by pedals using feet.)

Generally, when you are playing the single keyboard harpsichord, pressing a key makes 2 strings vibrate at a time; when you are playing the double keyboard harpsichord, pressing a key makes 3 strings vibrate and one of the keys is tuned an octave higher.

About a harpsichord, you cannot make different volume by changing the key touch because of its sound producing mechanism. A harpsichord is tuned in the way that pressing a key once makes two strings played in the same pitch or in an octave difference, and those two sounds are heard like one having bigger and richer tone.

Besides, even a small type harpsichord cannot be moved so easily that it was considered as a piece of furniture.

Therefore, craftsmen gave some gorgeous decoration such as painting pictures (scenery and plants, arabesque design etc.) on the reverse side of the lid and on the soundboard, and carving and inlaying into the sides and the case (legs).

Thus, a harpsichord has an appearance with the beauty of Renaissance and has a strong yet soft attack (the sound when starts playing), majestic sound, and dramatic expression. Besides, it has a resonant volume that suits even an ensemble with big instrumentation of more than 5 people.

Musicians and music lovers of the days in every country welcomed these characteristics enthusiastically; a harpsichord spread rapidly and became a star instrument among baroque music.

**Spinet (Bentside spinet)**
A spinet was invented in Italy around the middle 17th century and then spread throughout Europe. It became popular as a new-style harpsichord that can be carried easily in a box, and had been manufactured until the late 18th century. Its strings are set obliquely to the keyboard (generally about 30 degrees), and the shapes vary from triangle, pentagon to hexagon etc. The number of the keys is 56 in general. As the name spinet (small) literally shows, it is a small harpsichord made by distorting and minimizing an ordinary grand-type harpsichord, so that its tone color is pretty close to harpsichords. However, since the volume is less than harpsichords, it suits small ensembles (by 2 to 3 people).

A virginal is a rectangular, box-typed small kind of harpsichord whose strings are set parallel to the keyboard. The appearance is fairly similar to a clavichord. The number of the keys is 38 in general. The tonal volume is even smaller than spinets; that’s why it was said to be a household harpsichord. A virginal has thick and warm sound with strong fundamentals and weak overtones compared to harpsichords.
Since the whole instrument was covered with a rectangular box, a space came into existence beside the keyboard. The space was used as a box to put in little things, so a virginal was also appreciated as a piece of furniture to use as a sewing box, jewelry box, and a fancy box, etc. Besides, when the lid is closed, it can be used as a desk; it served housewives as a place to stay when writing, ironing, sewing and so on. It was an accomplishment for women above the middle class to play the virginal and bring in as marriage furniture.

Virginals were manufactured in various regions in Italy around the 15th to 16th century and then manufactured in Flanders (the area through the southern part of Holland and western part of Belgium to the northern part of France as of now) in large amount. Then virginals had a great run in the late 16th century of the Elizabethan England. Even "Virginal School," a new school of keyboard music, was born there. Many fans have loved the music of the Virginal School of England until today because it has good repertoires for the early keyboard music.

Virginals are classified into 2 types according to the position of the keyboard

・Muselar virginal

This is the type that the keyboard is set in the right side or in the center of the case. Because of this structure, near the center parts of the strings are plucked, and it becomes difficult for the plectrum to pluck the string still vibrating once again, and especially to pluck bass strings repeatedly is difficult. For this reason, a muselar virginal suits a kind of music that is composed in combination with melodies and harmony without complicated left-hand parts. It was popular around the 16th and 17th century but became not to be used much in the 18th century. The sound is thick and warm compared to harpsichords.

・Spinet virginal

This is the type that the keyboard is set in the left side of the case. Because the position of the keyboard is the same as a harpsichord, the tone color is comparatively close to harpsichords.

Clavi-organum
Clavi-organum
Owned by the Museum
of Art History, Vienna
1785  Franz Xaver Christoph

This instrument is formed by combining a harpsichord, a virginal, a clavichord, and a fortepiano with an organ into one. (The instrument in which an organ is incorporated is generally called a clavi-organum.)

The structure of a clavi-organum is not as simple as putting different instruments vertically together, but it is a complex keyboard instrument equipped with a coupler (connector) and you can play both instruments at the same time.
It was actively manufactured in various regions in Europe around the 16th to 18th century.

As described above, we classified the harpsichord into 4 types according to the shape. However, it has various types depending on the countries, times, and manufacturers, and each of them gives us feelings of its culture.

Up until the 17th century, keyboard instruments such as organs, harpsichords, and clavichords didn’t have individual music of their own but shared the same one together. From around the late 17th century, the music that suited each instrument was composed, and the harpsichord faced its prime ages in the 18th century.
Then, due to the collapse of the aristocracy by the revolution and also by the invention and popularization of fortepianos around the middle of the 18th century, the harpsichord gradually faded away from the limelight.
Today, because of the mood to review the early instruments played around and after the late 19th century, a harpsichord has gained popularity again by amateurs and performers who love the baroque music.