



WILLIS MUSIC PROUDLY PRESENTS:



PIANO BUYER'S GUIDE

A Guide For Your Piano Purchase Journey.



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Thanks to our friends at Schmitt Music for their collaboration on this Piano Buying Guide.





WELCOME TO WILLIS MUSIC

You've come to the right place.

"So you're interested in buying a piano. Congratulations! Since 1899, Willis has been assisting teachers and their students with playing the piano. We have a trained staff of professionals that are here to help.



We have the widest selection and whether you're looking for your first piano or a professional piano, we have the instrument for you. From the best of new pianos, digital pianos and used pianos, we have it all. We invite you to visit one of our exceptional piano showrooms, and our trained staff will be glad to serve you."

Kevin Cranley, President of Willis Music

BUYING A PIANO

Starting your piano purchase journey

Congratulations on deciding to buy a piano! It is the universal musical instrument, center of one's home, and provides a source of family culture and fun! Whether for the tiny beginner unable yet to reach the pedals, or for the serious player—a piano is a major purchase deserving much consideration. Buying a piano should be a simple and rewarding experience, and in the great majority of cases, it is.



You want to be happy with your purchase—with its appearance, touch, tone, lasting qualities and its market value over the years. All of these are very important to you. You have every right to expect a good return on your piano investment. And you shall have it, if you take time now to inform yourself on what, for most, is a once-in-a-lifetime purchase.





The Universal Instrument

To play a musical instrument is to discover a tremendous outlet for self-expression. Which musical instrument is best for you? For decades the piano has been the most popular instrument for most people. It's often called "the universal instrument" and is perfect for playing solo or for accompaniment.



To learn to play the piano is to learn harmony, rhythm, counterpoint, and bass and treble clefs. For any instrument you might play in the future, your training in piano will prove invaluable.

Is bigger better?

Not necessarily, but—all things being equal—it is true that larger acoustic pianos have a larger sound and greater volume. This is due to a much larger soundboard and longer bass strings, which give the full-sized instruments a more fundamental sound in the bass register.



However, concert grands, which are nine feet in length, are primarily designed for concert halls as very few homes can accommodate them. There are exceptional instruments available in all sizes, and it is wise to select the one that best suits your needs and your budget.





Acoustic Piano Types

There are two basic types of acoustic pianos – grand pianos and vertical pianos (or upright pianos). Verticals come in several sizes. The smallest are the spinets, which are about 36 inches high. Next are the pianos commonly called consoles, which are about 40 to 43 inches high. Professional studio pianos are the largest and range anywhere from 44 to over 50 inches high.



Whatever the height, all vertical pianos take up about the same amount of floor space – roughly five feet by two feet. While spinet-sized pianos enjoyed great popularity for many years, there are very few spinet pianos manufactured today. Consoles and studios are preferred by most manufacturers today due to their superior tone, touch, and musical qualities.

GRAND PIANOS

How to choose the right one for you

Grand pianos come in a variety of sizes, and are measured by length from the very front edge to the very back. The term “baby grand” usually indicates a grand which is about four feet, five inches to about five feet, two inches in length.



Large concert grands are approximately nine feet in length. Depending on the manufacturer, there are many different sizes between the two extremes, and they often have different names attributed to them. It's best to judge a grand size by actual measurement.





Should I buy a grand or a vertical?

A fine quality grand piano should certainly be considered if space and budget permit. Because of the design, a grand piano has certain inherent advantages over the vertical configuration. The gravity-type action of a fine grand allows for faster repetition of notes and for better, more subtle control of expression and tone than that of a vertical action piano. The horizontal construction and the shape of the soundboard allow the tone to develop in an open manner. Musically, a fine grand is superior to a vertical piano. Aesthetically, it can be an elegant and dramatic addition to your home decor.

However, space and budget are often major considerations, and not all grands are created equal. A first class vertical piano is an excellent musical instrument, and will outperform and outlast a poorly made, inexpensive, small grand. Vertical pianos come in a variety of furniture styles and finishes that can enhance your home's decor, and will take a fraction of the space of even a small grand.

Piano: the key to your child's success

There is an undeniably strong correlation between music and education and the development of skills that children need to become successful in life. Self-discipline, patience, sensitivity, coordination, and the ability to memorize and concentrate, are all enhanced by the study of music. These skills will follow your child on whatever path he or she chooses in life.



The piano is an excellent first instrument through which to provide your child this source of lifelong joy, satisfaction, and accomplishment. No other single instrument matches the piano for its broad application of musical concepts. Even if later your child chooses to play another instrument, the melody, rhythm, and sense of harmony acquired with piano education will pay off handsomely.





THE PRICE OF A PIANO

Why are some pianos more expensive than others?

There are many factors that go into the pricing of a piano. But the question often arises, “Why are some pianos more expensive than others?” The simple way to answer this is because high quality pianos are more expensive to manufacture than lesser quality instruments. In this section we’ll cover the breakdown of what adds to a piano’s price point.

Selection of Materials

The finest materials—top grade spruce, wool felt, expensive hard rock maple, veneers, and all the other components that go into the making of the piano - will affect the end result. The makers of more expensive instruments take great care in selecting and handling their materials consistent with the quality of that instrument.

Preparation of Materials

Proper seasoning of woods is time-consuming and costly. First the wood must be air-dried for a period of time, and then placed in kilns to stabilize it to specific moisture contents. Through this process, better instrument manufacturers go to great lengths to ensure the quality and long life of their pianos.

Workmanship

There is no substitute for quality of workmanship. The more skilled the workers, the better the piano. Mass produced pianos are less expensive than 'hand-crafted' instruments. For example, it takes approximately one year to create a handmade quality instrument.

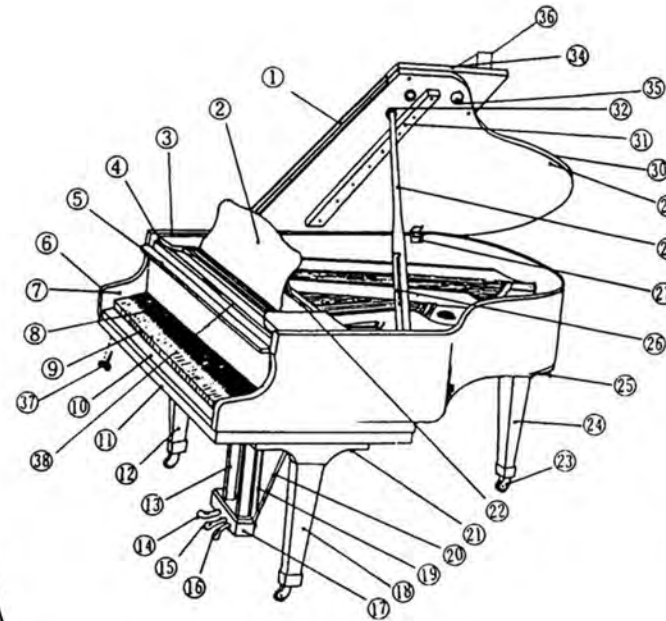
Design

A beautifully balanced scale is the result of the work of a master scale designer. Scales tend to evolve and be refined over a period of time. Manufacturers of the finest pianos constantly strive to find ways to make their scale designs even better.



ANATOMY OF THE PIANO

Know your piano inside and out.



GRAND PIANO CABINET

- | | |
|---------------------------|----------------------------|
| 1. Top Board Long Hinge | 20. Lyre Brace |
| 2. Music Rack | 21. Leg Bolt |
| 3. Music Shelf Guide Rail | 22. Music Rack Prop |
| 4. Music Shelf | 23. Castor |
| 5. Fallboard | 24. Leg (Rear #3) |
| 6. Side Arm | 25. Leg Base |
| 7. Key Block | 26. Top Board Prop (Short) |
| 8. Logo | 27. Top Board Butt Hinge |
| 9. Keys | 28. Top Board Prop (Long) |
| 10. Key Slip | 29. Top Board Rubber Tack |
| 11. Key Bed | 30. Top Board (Rear) |
| 12. Leg (Bass #1) | 31. Top Bar |
| 13. Lyre Post | 32. Top Board Prop Cup |
| 14. Soft Pedal | 34. Top Board (Front) |
| 15. Sostanuto Pedal | 35. Brass Lid Catch |
| 16. Sustaining Pedal | 36. Lid Lock Bar |
| 17. Pedal Box | 37. Key Block Wing Bolt |
| 18. Leg (Treble #2) | 38. Stretcher Bar |
| 19. Pedal Rod | |

Diagram source: Photo above courtesy of intunepianoservices.com



The Back

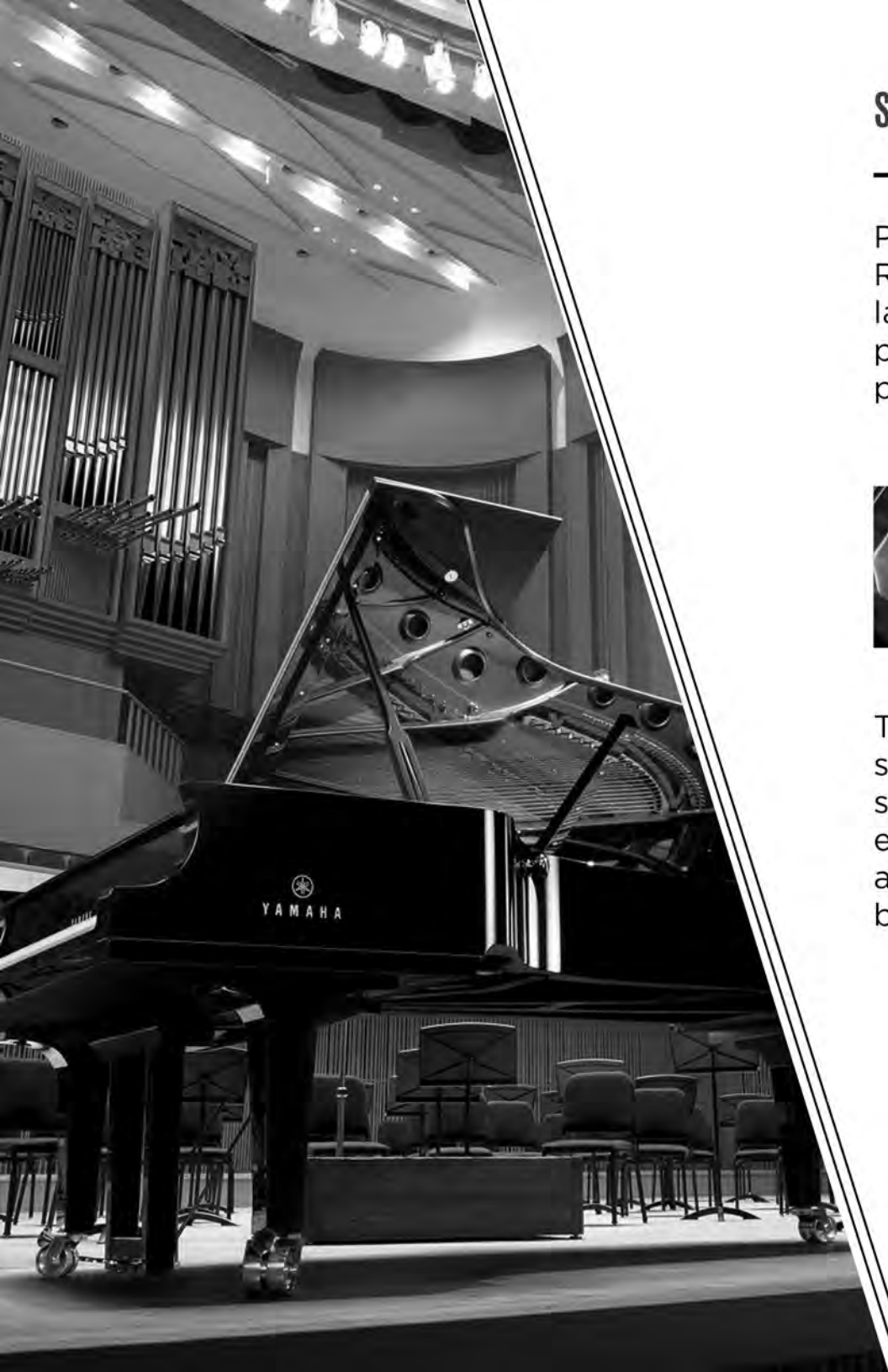
The back of a vertical piano, or the bottom in the case of a grand, is the piano's foundation, and must be exceptionally strong to withstand the tons of "pull" exerted by the strings. This is the reason for the vertical's back posts, or in a grand, the braces underneath the piano.



Pedals

Most pianos have three pedals, but occasionally you see some with just two pedals. Two-pedal pianos are usually pianos manufactured outside of the United States.





Scale Design

Piano construction begins with scale design. Reduced to simple terms, the scale is the physical layout of the strings and other components, which produce or affect the sound and tone quality of the piano.



The scale designer must consider: the speaking length of the string; the gauge, or wire size of each string; the tension, in pounds, to which each string is drawn when it is tuned to exact pitch; and the gauge of the pure copper winding of the bass strings.

Scale Design Continued

If all of these factors are in proper relationship to one another, we have harmony, and the result is an excellent foundation upon which a quality piano may be built. So scale designers are the tonal architects of the piano, and the scale is their master plan.



All of these factors are interdependent. One cannot be changed without affecting all of the others. Differences in scale design give different pianos their own special tonal qualities or personalities. In drawing his master plan, the piano scale designer strives to keep all these elements in place.





The Soundboard

The soundboard is the heart of the piano. It is one of the most important, yet least understood, parts of the instrument. Its purpose is to convert the vibrations of the strings into what we know as piano tone. Without it there would be no amplification, and you would hear little if anything. If the soundboard is not made of the proper kind of wood, if its size, thickness, crown (curvature), grain direction, texture and other factors are not in balance, the end result will be unacceptable tone, texture and sustaining quality.

Spruce is the species which nearly all manufacturers of top quality pianos use for their soundboards. There are several grades of spruce. The highest fine grain quality is expensive and is used in top quality pianos.

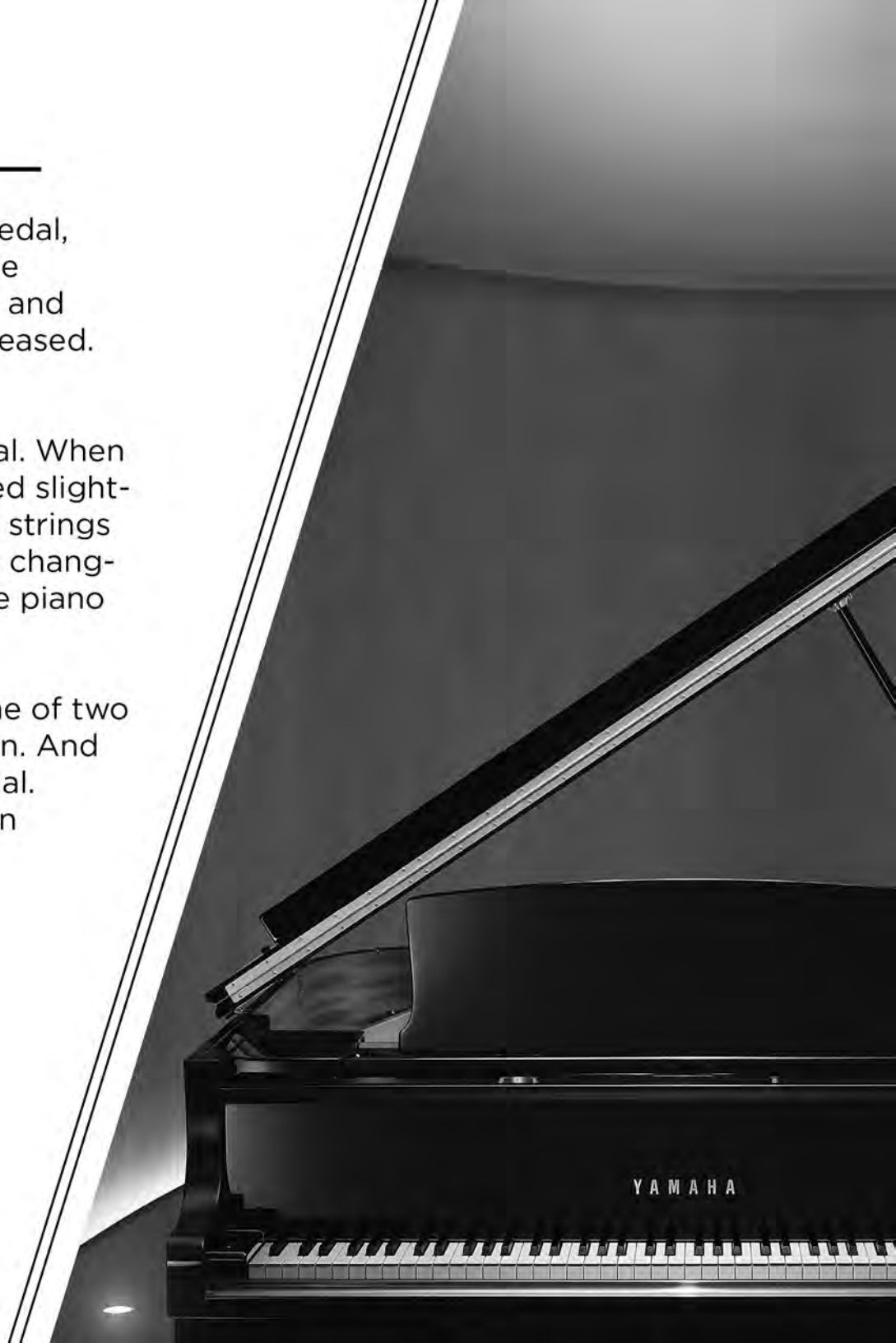
It should be noted that other woods, even plywood, have been used for soundboards over the years, and can still be found in lesser quality instruments. However, the simple fact is that the long, even grain of a solid spruce soundboard transmits and amplifies sound the best.

Grand Pedals

The right pedal, called the damper or sustaining pedal, operates on the grand piano just the same as in the vertical piano. It lifts the dampers from the strings and allows all the strings to sound until the pedal is released. This is the pedal that is used the most.

The left grand pedal is called the “una corda” pedal. When depressed, the entire action and keyboard is shifted slightly to one side so that the hammers only strike two strings rather than the three strings per note. This slightly changes the character of the sound, as well as makes the piano sound a little softer.

The middle pedal on a grand piano functions in one of two ways. On some pianos it functions as a bass sustain. And on others, the middle pedal is the “sostenuto” pedal. When depressed, it will sustain a single chord or an individual note without affecting the rest of the keyboard. While this pedal is almost exclusively found on grands, some of the highest quality professional uprights are also equipped with a true sostenuto pedal.





Vertical Pedals

The right pedal is called the damper, or sustaining pedal. It lifts all the dampers off the strings so that any notes played simultaneously while the pedal is depressed will continue to sound. When the pedal is released the dampers fall back against the strings and the sound is stopped. This is the pedal that is used the most.

The left pedal is the soft pedal. When depressed, it moves all the hammers close to the strings so that the stroke is shortened and the result is a softer sound.

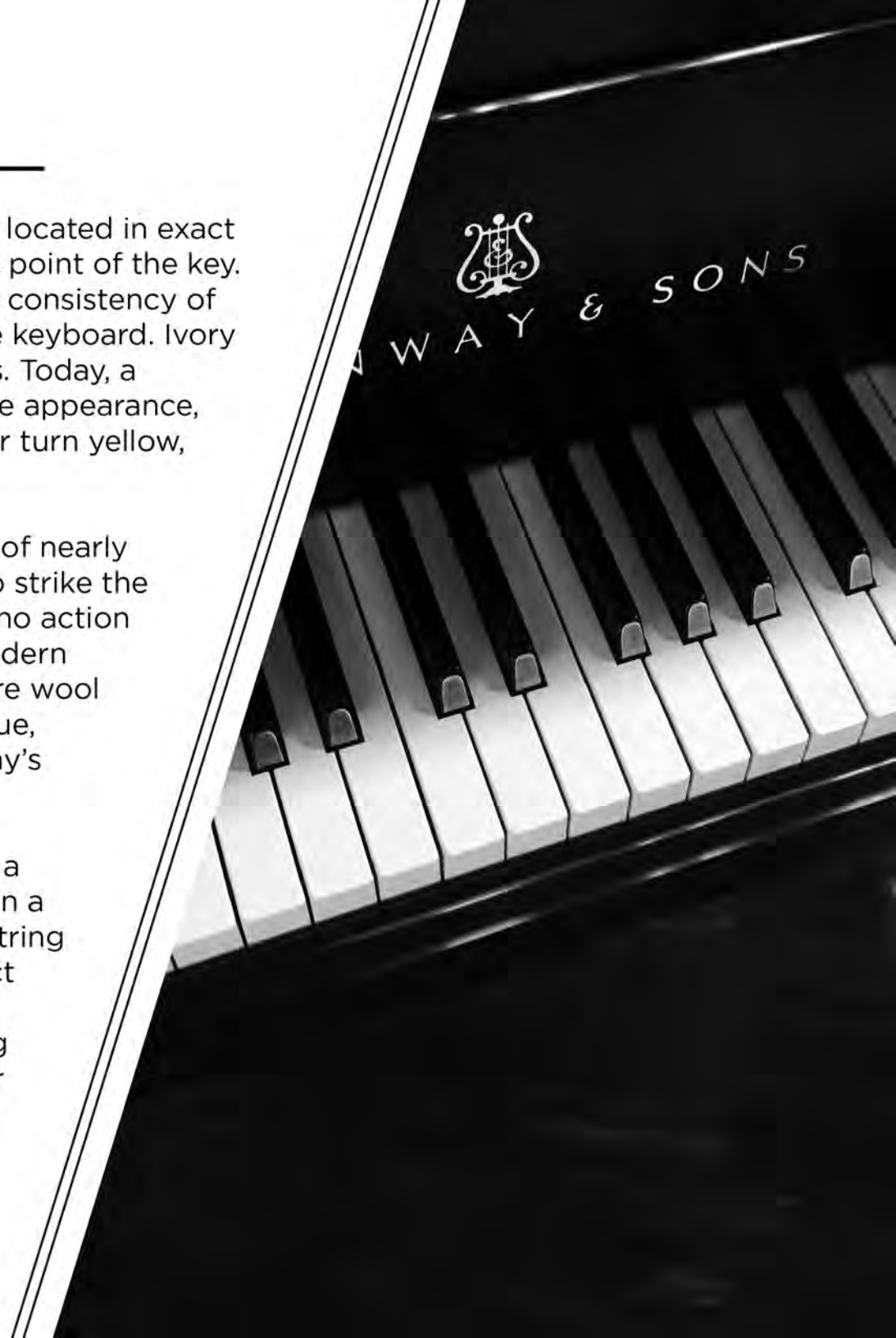
The middle pedal on a vertical piano is often a bass sustaining pedal. When depressed it lifts off the dampers in the bass section. On some vertical pianos the middle pedal is a “practice” pedal or “muting” pedal. When it is depressed, a thin strip of felt is lowered between the hammer and the strings, which muffles the sound to a very low level.

Keys and Action

Each key is mounted on a key frame. Key frames are located in exact position by the center pins, which are at the balance point of the key. Quality pianos have weighted and balanced keys for consistency of touch and weight throughout the entire range of the keyboard. Ivory has not been used for the key tops for over 40 years. Today, a modern composition material is used which gives the appearance, feel and durability required. The white keys will never turn yellow, nor will they crack, split or chip.

Now let's go to "where the ACTION is"—that section of nearly 1500 parts of the piano which causes the hammer to strike the strings when the keys are struck. Most parts of a piano action are traditionally made of hard northern maple or modern composite materials. In addition, several kinds of pure wool felt and bushing-cloth, leather, steel, brass, nickel, glue, plus many hours of work, go into the making of today's piano action.

"Strike the key and the hammer strikes the string" is a greatly over-simplified description of what goes on in a piano action. The hammer not only must strike the string almost instantaneously; it must also strike at an exact point on each string. It must strike with the exact amount of force required to produce volume ranging from pianissimo to forte, and then bring the hammer back into position, ready to repeat the process over and over, at a very rapid rate.

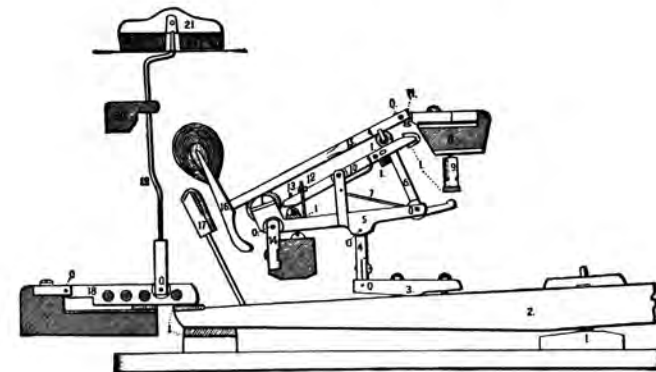


Keys and Action (Continued)

The action must also provide damping of the strings, as well as allow the tone to be sustained as long as the key is held down. There can be no lost motion in the action, which would spoil the touch. It must perform quietly and efficiently, with a minimum of maintenance under adverse conditions, for many years.

Piano hammers are made of fine wool felt, which is formed around a hardwood hammer-molding. Most piano hammers are made of two layers of felt; the outer layer is white, the inner layer is usually a color.

To bring out the best in a piano, the hammer is the all-important link. It's often said that while a good hammer can't make a poor piano sound good, a bad hammer **CAN** spoil the sound of the best piano. That's why it's so important that the hammer be properly sized and voiced for the scale of that particular piano.



ACTION OF THE GRAND PIANO

Photo source: courtesy of gutenberg.org

Action Regulation and Voicing

This is the final stage in the manufacture of a piano. Piano hammers, in spite of being made from the best wool felt obtainable, underexacting control will vary slightly in density and hardness. This variance is corrected by the use of fine steel needles inserted into the hammers at the proper place and the proper depth. By “needling” a piano hammer, the tone regulator can make the tone of an individual note sound hard, or mellow, or full or thin. This fine adjustment is called voicing. The end result is tonal balance and an instrument with a full rich tone.

Action regulation is done by skilled technicians at the factory, and consists of minute adjustments throughout all the critical points in the action to insure that each and every key and action assembly performs exactly as it is designed to do to insure evenness throughout the full range of the keyboard. The finest piano manufacturers spend a great deal of time and attention to this process with their skilled regulators and voicers.

Final preparation of the piano before it leaves the factory is one of the many differences between pianos of differing quality. In the factory, final preparation of the piano includes such things as several tunings, action regulation, and voicing. Then a final preparation by the dealer’s technicians before delivery should be done to ensure that the instrument is at its very best when it arrives at your home.





Bridges

A critical step in the making of a quality piano is the shaping and fitting of the bridges. The bass and treble bridges must be planed to exact thickness from end to end and fitted securely to the soundboard. Absolute accuracy is paramount so as to provide the proper down-bearing of the strings upon the bridges. It is this correct down-bearing which is so vital for the transfer of the string vibrations to the soundboard (resulting in fine tonal quality from the lowest bass to the highest treble).

The Pin Block (or wrest plank)

The pin block is a laminated hardwood plank running the width of the piano and attached to the back frame. Embedded in holes in the pin block are the steel tuning pins around which is coiled one end of a piano string. The pin block has to hold the tuning pins tight enough, by friction alone, so that all the strings are maintained at the right tension without unwinding - thus keeping the piano in tune.

THE PIN BLOCK (or wrest plank) Continued

The durability of its pin block is important to the long-term life of a piano. Defective pin blocks can be replaced on grand pianos at great expense; however, it is nearly impossible to replace a vertical piano's pin block.

Pin blocks come in several varieties, which differ in the number of laminations they contain (from 4 to 41). There is no particular advantage to many multiple laminations. The important thing is that the pin block is properly designed and the holes accurately drilled.

Properly designed pin blocks made with well-seasoned woods will often last the life of the piano if kept in proper climactic conditions. Loose pins are usually a result of a poor pin block or excessive dryness over a period of time.

The Piano Plate

The piano plate or string-frame is made of fine grey cast iron, to the individual manufacturer's specifications and scale design. The plate along with the back frame to which it is attached is the foundational strength to resist the tons of string tension placed upon it.





Cabinetry

Approximately 85% of every acoustic piano is made of wood, and a good portion of that wood is the piano cabinetry. Exquisite furniture and finishes have long been associated with the fine art of piano building. For most piano buyers, the style of cabinetry and wood finish is an important consideration. From period styles to contemporary, there is sure to be a finish and style that will work with your decorating tastes.

There are three types of cabinet construction:

- **SOLID CORE CONSTRUCTION:** Solid lumber core (usually poplar) with two outer layers of veneer on each side.
- **PLYWOOD:** Approximately half to three quarter inch plywood panels with face veneers on each side.
- **FIBER BOARD:** Panels made of compressed wood fiber, and with face veneers applied to each side.

Cabinetry Continued

Historically, piano cabinets have used the solid core construction, and some still do today. However, plywood and fiberboard are now commonly used throughout the industry. Legs, molding, and various trim pieces are usually solid wood. On good quality pianos they are of the same wood species as the rest of the piano's cabinet.



While elaborate cabinets with carvings, moldings and rich styling features are more expensive than simple plain cabinets, within the same brand and model there is no difference in the quality of the instrument. Proper seasoning of the woods used and the application of a long lasting finish will ensure the beauty and stability of the cabinet for its many years of service.





WHAT ABOUT USED PIANOS?

Why are some pianos more expensive than others?

Buying a used piano can be a very good decision. On the other hand, it can be a very bad decision. A good used piano will be less expensive than a new one of similar quality. If it is in good condition and properly maintained, used pianos can give years of service.

Unfortunately, most used instruments are many years old, and frequently have had little regular maintenance and tuning during their lifetime. Therefore, if buying from a private party out of a home, it is wise for your own protection to engage the services of a good tuner/technician to personally inspect and evaluate the piano's condition. If the piano needs anything more than a tuning and minor adjustments, you probably should keep on looking. Major repairs and rebuilding are extremely expensive.

Another option is a completely rebuilt or reconditioned piano - which carries a warranty - from a reputable dealer's piano shop. If you can find a piano you like in your price range, you can likely be assured of satisfaction. At Willis Music we only work with the finest tuners and technicians in our region, ensuring you the finest service for your instrument.

Appraising a used piano if you don't know the dealer

Buying a used piano privately can be a dangerous and costly decision. What appears to be a rare bargain may prove to be a real liability. Unless you are a piano expert, your best assurance is to rely on the judgement of the most experienced dealer in your area with a proven record of integrity and fair dealing. It is unwise to pick up an old piano privately "to get started." A poor piano offers discouragement to the child and is at best, a questionable investment for the parent.

Here are just a few of the many dangers encountered when a non-expert piano buyer buys a piano privately:

1. **PLATE:** May be cracked or broken which cripples the piano musically and renders it useless.
2. **STRINGS:** Bass strings may be "tired and tubby," totally devoid of tone.
3. **SOUND BOARD:** May be badly cracked, or worse yet, may have lost crown to become tonally deficient.
4. **RIBS:** May be broken or pulled away from soundboard.
5. **BRIDGES:** May have lost proper bearing, be broken, split or cracked, necessitating a major expense.





Piano Buying Danger Areas Continued

- 6. TUNING PINS:** May be loose, may have been previously “doped,” may require oversized pins, may require new pin block. Avoid any piano with pins showing evidence of having been pounded.
- 7. PIN BLOCK (WREST PLANK):** Pin Block (wrest plank): May be split and is very costly to repair. Since this is concealed, experienced judgement is required.
- 8. ACTIONS:** May be literally worn out rendering the piano useless. If rebushing is required, this is very costly. A complete regulation requires much time of an expert and is expensive if properly done.
- 9. HAMMERS:** May be worn out or improperly filed so as to require replacement – another costly repair.
- 10. TRAP WORK:** The internal leverage controls of the expression pedals may need complete overhauling.
- 11. REFINISHING:** Many people learn to their dismay that refinishing a piano is not a home do-it-yourself project; that it requires much hard work and know-how best left to a skilled craftsman. Good refinishing work is expensive.

THE MODERN PIANO

This history of the piano and beyond

From the early 1900's through the "roaring twenties" much of the success of the piano industry was due to the popularity of the player piano. During that period over half of the pianos made in the United States were players. These old players were entirely mechanical with thousands of individual parts including bellows, pneumatic tubes, tracker bars, and all kinds of other mechanical devices. When the radio and phonograph came along in the mid-twenties, they replaced the player as the main source of home entertainment.



Today's player pianos—verticals and grands—are marvels of technology for player and non-player alike. They offer features and performance that far exceed the player pianos of yesterday. The player unit does not affect the playability of the piano itself. So not only do you have a fine piano upon which to play, but also the amazing capabilities of the player piano.





Acoustic Player Pianos

Using digital technology, today's player has as a source, modern digital files instead of the old paper piano rolls. The unit read the information in the digital file and activate the keys using highly sophisticated electronics. The result is a performance exactly as the performer originally played the piece, including dynamic expression and tempo. With the touch of a button you can have world-class performances right in your living room with artists such as Arthur Rubinstein, Vladimir Horowitz, Elton John, Jamie Cullen and hundreds more. It's like having the most famous and gifted pianists from the past and present performing just for you, live in your own home.

Some models go far beyond the standard player piano features to offer not only live acoustic piano concerts, but instrumental ensemble music as well. With modern playback features, they allow you to record and hear your own performances, which is particularly helpful for students. Today's player pianos, with their fine tone and touch, and stunning features and capabilities, offer an unparalleled musical entertainment system for your home.

TODAY'S DIGITAL PIANOS

Explore the benefits of digital technology

Electronic “piano-like” instruments were introduced over forty years ago. However, they never achieved any great popularity because they only approximated a piano-like sound and touch, and had very limited applications.

Fast forward to this new age of digital electronics! Today’s digital pianos are capable of producing amazingly authentic piano sounds and have key actions that give the feel and reputation of an acoustic instrument. Thanks to the wonders of digital technology, the digital piano is also capable of realistically producing other musical instrument sounds, as well as those of the piano. The digital piano usually has the standard 88-note keyboard. Some lower-priced models, however, have “short” keyboards of only 76 notes. There are many other voices in addition to the piano sound.

“Digital piano ensembles” are digital pianos that feature an extensive selection of instrumental voices, a large number of accompaniment rhythms, “play-along” chord patterns, and many sound effects too numerous to list. The “extras” that digital piano ensembles offer are seemingly limitless, making them the most versatile home instruments imaginable.





WHEN YOU'RE READY TO SELECT

Our experienced piano consultants are here to help!

Buying a piano should be a happy and rewarding experience. When you visit one of Willis Music's stores, we will make every effort to ensure that you have that rewarding experience. You'll see an extensive display of pianos in all sizes, furniture styles, and finishes. Willis Music represents pianos in all price ranges—from the modestly priced vertical pianos to the magnificent Concert Grand.

Take all the time you need at Willis Music. Come by for several visits if you wish. Our skilled and experienced piano consultants will do everything possible to assist you in finding the right piano for your playing needs, your space requirements and your budget. Ask questions, our piano experts love pianos and have extensive knowledge, which they enjoy sharing on these topics and more.

YOUR PIANO

Now you're ready to explore and find your piano

Willis Music has been trusted since 1899 with dedicated service to the musical community. We sincerely hope you give us the opportunity to help you join the thousands of satisfied valued piano owners who make music with a fine piano from The Willis Music Company.



THANK YOU

Meet us at a Willis Music Piano Showroom near you.



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