

# Player Pianos of the Rag Time Era.

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While the first quarter of the Twentieth Century saw many fabulous inventions, few were as fascinating as the player pianos and orchestrions, which provided live entertainment by playing real musical instruments automatically.

The origins of automatic musical instruments dates to the middle ages, when village clocks played chimes from a rotating barrel with protruding pegs. From this eventually developed organs and music boxes played from a rotating pegged cylinder. The pegged cylinders were extremely labor intensive to produce, however, and the requirement that a musical arrangement be an exact length of time also made it difficult to put musical compositions on the cylinders.

In the early 1890's, Gavioli introduced a system of playing band organs with stiff cardboard folding "book" music. Instead of protruding pins from a rotating cylinder playing the keys, spring loaded levers dropped into holes punched in the heavy cardboard. The cardboard, while far from easy to punch, was so much easier and cheaper to produce than a pinned barrel, it was a revelation. Also, the length of the composition was nearly "unlimited," allowing classical music to be played in the time originally intended by the composer.

At first, the mechanical levers triggered by the stiff cardboard played the notes through mechanical linkage of wires and levers, as had been done by the pinned cylinders. But then a new system was developed using pneumatic valves to play the notes, and the mechanical levers opened and closed the pneumatic valves. It was not a great leap from that point to simply eliminating the levers, and let the holes in the punched cardboard open and close the pneumatic valves.

The stiff cardboard was easier to produce than the pinned cylinders, but it was still difficult. Though the stiffness of the cardboard was required at first to work the levers, it was not necessary to simply stop air movement. Lighter materials were substituted, soon moving to thin paper rolls, which could easily be perforated. Up to ten or more rolls could be punched at the same time, leading to mass production and copying of the music.

About 1895, player reed organs, the first paper roll operated home instruments, began to appear, and shortly after came "pushup piano players," devices which could be "pushed up" in front of any piano. The piano player contained the bellows, roll, pneumatic system, and had felt covered fingers, which played the piano keys. In 1900, not even the most optimistic in the player piano industry ever thought they could get people to trade in their hand played pianos for new pianos with the player mechanism built inside. By about 1906, however, the popularity of the self-played piano had exceeded all expectations, and the era of the pushup piano player was fast being replaced by "inter-players," built into pianos at the factory.

Ragtime - the popular music of the day- had by now made inroads into even high society. The catchy tunes and rhythmic and new dance steps were seen in ballrooms that had previously witnessed only the waltz. The player piano was perfectly suited to ragtime, and, as a very popular ragtime song was titled, "Everybody's Doing It Now!" No well appointed home was without a player piano, and steam ships usually provided several for the enjoyment of their customers.

By the time the US entered the European War in 1917, player piano sales were higher than ever before. The many patriotic songs inspired by the World War found a voice on millions of player pianos. Even homes of modest means boasted a player piano, and because the long and arduous hours of practice were eliminated, everyone with a "foot for music" could enjoy good quality piano arrangements of their favorite or new songs instantly. The "word roll" allowed the player and his audience to "sing along," and was a great boost to popularity as it brought families together around the piano.

At the same time home player pianos were rising in popularity, a whole range of commercial automatic musical instruments was also on the rise. While advertising showed pictures of these instruments in fine restaurants, hotel lobbies, candy shops and the like, the biggest customers were actually saloons and houses of ill repute. In a day of acoustic phonographs, amplified only by a horn, the phonograph was too soft. Only a loud piano could furnish music of such volume to be heard above the noise of a bar room. Called "coin pianos" or "Electric Pianos," these commercial versions were operated on electric motors instead of being pumped by the feet as the home models, and they held large ten-tune rolls which played through their ten songs and rewound automatically to play them again, at a nickel a song. (Nickelodeon – the popular name for this type of player piano today – was actually never used for them during their great era. It was not until the song "Put Another Nickel In, in the Nickelodeon" in the early 1950's that the term "*nickelodeon*" was used for automatic player pianos.) While simple pianos equipped with a mandolin attachment were very popular and fit the budget of many saloons, the more instruments that could be added to the piano, the more it was played. These instruments were called "orchestrions" and the more elaborate models included drums, organ pipes, or a xylophone. Even at rather high prices, and at a nickel a play (equivalent to over a dollar in today's money) the saloon owners found they not only attracted customers with the music, but actually soon paid for the instrument.

The more novel the orchestrion, the more play it received. And perhaps the most unique American instrument was the Mills Violano, a machine playing a real violin with mechanical fingers. Invented by Henry Sandell, a Swedish immigrant and largely self-taught electrical wizard, it appeared on the scene when electric light bulbs were almost unknown to most of the country, and the advanced circuitry of a Violano was as mysterious as that of a computer today. Unlike player pianos, which operate on air (vacuum), the Violano is completely electrical, and while it is not "electronic," its circuitry includes resistances and other electrical features very complex for the time. In 1906, Mr. Sandell proved a genius in another aspect – he entered a contract with the Mills Novelty Co., whose major line of manufacture was gambling "slot" machines, to market his invention. In 1909, the "other Seattle World's Fair" – the Yukon Pacific Exposition – included an exhibit from the U.S. Patent Office of the "eight greatest inventions of the past decade," among them the Mills Violano

On January 1, 1919, Prohibition went into effect, and the saloon went underground. The great tall orchestrions of the age before the World War, with exposed piano keyboards, and their top compartments filled with pipes and drums, became smaller. The business of Seeburg, Coinola, and others boomed with their smaller, keyboardless machines, such as the tiny box “Seeburg L” which, according to stories, could have a drapery thrown over it and pass for a buffet during a speakeasy raid. These machines were well suited to the new Jazz music.

Then, about 1926, came radio. The home player piano sat in silence – in fact everyone sat in silence – as the family strained to listen to the newest thing – radio. At first a weak and barely audible signal, by about 1928 vacuum tube amplifiers were able to blare music from loud speakers. The phonograph could now be heard over the din of a bar room, and a new coin operated device appeared – the “juke box.” It offered several advantages over a coin operated piano – mainly the *selection* of the music the customer wanted to hear. Now you could hear a recording by a known artist (heard on the radio and thus familiar) Songs began to be associated with certain performers, and you could choose your favorites on the jukebox.

Both at home and in the commercial world, the sales of player pianos fell even faster than they had risen a decade earlier. A related industry of theatre organs was also doomed by the electronic amplifier and talking movies. The stock market crash in 1929 did not help. A few manufactures, such as Seeburg, made the switch to juke boxes, and Mills continued with their slot machines, but by 1930, the great player piano and orchestrion industry was dead.

Many thousands of orchestrions were converted into “good” pianos by having the top drum section sawed off, and thousands more were scrapped. Home player pianos fared better, being a treasured and expensive item, but their leather and rubber parts hardened with lack of use, and in the damp Midwest, South, and East, these parts rotted from humidity. Many piano tuners in the 1930’s and 40’s convinced owners to remove the player mechanisms, which by this time no longer worked, to make tuning easier.

Pianos brought to the dry Rocky Mountain West when new still operated in the 1950’s, however, and a very few collectors began to appreciate their novelty, now barely twenty to thirty years old. Charlie Bovey was one of the first to collect player pianos and orchestrions, most of which were originally shipped to Butte, Montana, and were still in good playing condition. While most people of that generation had pumped a player piano, many had never seen the unique commercial orchestrions with their drums and organ pipes. The Bale of Hay Saloon in Virginia City became famous in the 1950’s for its unique collection.

In 1958, the band organ industry was suffering from the electronic amplifier age, and Charlie Bovey discovered the B.A.B. Organ Company of Brooklyn, New York, which was happy to find a customer for its obsolete organs. Nearly the entire contents of their building were shipped to Nevada City.

Other collectors began appreciating mechanical music devices in the late 1950’s, and rebuilding them to again play as when new. Throughout the country, many tourist attractions featured “music machines.” Then in about 1970, band organs and the commercial or “nickelodeon” machines began to be purchased by wealthy collectors. Many were beautifully restored to like new condition, but most disappeared from public view in private museums. Only a small handful remains on public view today. Thanks to

the Montana Legislature and the Montana Heritage Commission, one of the largest collections still visible to the public is right here in Nevada and Virginia City! Here, generations who have never even seen a home player piano can be transported back in time to witness the genius of a mechanical world, and hear music exactly as it was heard eighty to one hundred years ago.