

## Brunswick

The Sign of Musical Prestige

Phonographs Radiolas Panatropes

Radios

Records

### The Brunswick-Balke-Collender Company

#### The Brunswick Radio Corporation

By R. J. Wakeman Davis, California December, 2011

The real secret of the House of Brunswick is the time-honored formula for making a quality product:

Aspire to make the best. Then pay the price and use the materials to do it. In 76 years we have not changed this policy and it explains, we believe, why there have never been enough Brunswick products to go around. Our methods are exacting; the process is slow. But the finished product, as thousands will tell you, is a tribute to the principles of honest manufacturing it embodies.

The Saturday Evening Post, July 9, 1921, page 75

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#### **Introduction**

In April of 1930 the Brunswick-Balke-Collender Company sold its music division to Warner Brothers Pictures. Included in the sale were all Brunswick phonograph files and recording ledgers; the Brunswick Company retained no original files. Warner Brothers formed the Brunswick Radio Corporation for production of Brunswick radio and Panatrope models and for recording and pressing records. In August of 1931 with the rapid decline in record sales due to the deepening economic depression, Warner Brothers leased its records division to the American Record Corporation (ARC) which sold a number of chain store record brands. In December of 1938 ARC was sold to the Columbia Broadcasting System (CBS). CBS reintroduced the Columbia label (dormant since 1936) and gradually discontinued production of Brunswick label records. In 1940 rights to the Brunswick records and label were returned to Warner Brothers; in 1941 Warner Brothers sold the Brunswick Radio Corporation, the Brunswick and Vocalion labels, and all record masters made before November 17, 1931, to American Decca Records. In 1962 the Music Corporation of America (MCA) merged with Decca Records.

During the years MCA owned the Brunswick and Decca files, the files were kept in Universal City, California, and were unavailable to the public; only occasionally were researchers permitted to search through the boxes of original files. Although not allowed to make copies, in 1985 MCA permitted Philip R. Evans (co-author of the Bix Beiderbecke and Frank Trumbauer biographies) to search the files for researching Al Jolson's recordings and contracts. Mr. Evans reported it was a sad experience to thumb through the boxes of recording ledgers and find pages torn, missing, out of order, with incorrect data, or simply lacking needed information.(1) "Take" numbers were not listed in the files, thus it was necessary to obtain information from other sources, including original records catalogues and from still-surviving records. In 1990 the Matsushita Electric Industrial Company purchased MCA Records and discarded the Brunswick files being certain no one would want such old information. Thus original Brunswick files and ledgers were lost, complicating research into the Brunswick phonograph and Panatrope models. Research has been confined to original Brunswick literature, advertisements in journals and magazines, and articles and advertisements in the early phonograph trade journal, the Talking Machine World. For his 1948 edition of Hot Discography, author Charles Delaunay evidently had access to early Brunswick and Vocalion files as he quotes exact dates of recording sessions that were not then listed in other sources.(31)

In 2001 Greenwood Press published a four-volume, *Brunswick Records -- A discography of Recordings, 1916-1931* by Mr. Ross Laird in Australia. Each recording listed includes the record title and artist(s), the recording location and date, and the record and matrix numbers. It is the best reference for early Brunswick records and represents very considerable research by the author. Mr. Laird had access to microfilms of many original Brunswick recording ledgers, then held by MCA. On page xv of volume #1, Mr. Laird makes this observation, "The importance and significance of the recordings made for Brunswick and its associated labels cannot be overestimated, and these volumes are intended to provide a guide to the wealth of material across a wide range of genres in the Brunswick catalogs."(8)

Since the Brunswick-Balke-Collender Company never made external horn models, interest in Brunswick phonographs among collectors has perhaps not been as enthusiastic as it has been for some of the other brands of machines. Still, very many Brunswick phonographs, Radiolas, Panatropes, and radios exist today. Many are considered to be a family treasure; they represent pieces of Americana. When new a Brunswick phonograph was often a major family purchase. Starting in 1916 the Brunswick-Balke-Collender Company was pleased to place before the public high quality phonographs for a reasonable price. The molded wood internal horns made by Brunswick are beautiful to view even after many decades; most are hidden by the grille at the front of the internal horn. Starting in the early 1920's Brunswick made its own spring motors; many are found held within bent sheet metal housing and when first viewed even after decades the motors appear to be new. At times Brunswick phonographs can be found for sale in antique stores, garage sales, and through newspaper advertisements. Often there are two or more available for bids on eBay. The large production and success of the Brunswick phonographs helped make "phonograph" a generic term for disc record players in the United States. From the first Brunswick called its machines phonographs and not talking machines.

When updating phonograph catalogues the Brunswick Company at times give different names or numbers to the same model of phonograph. An example is Style 55 introduced in 1916. In 1918 when the Ultona tone arm and reproducer were introduced and installed the model was changed to Style 75 and in the early 1920's to Style 7. This must have caused some confusion to Brunswick dealers and complicates research today.

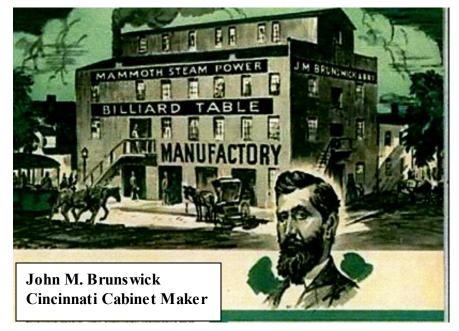
Every serious collector has several favorite Brunswick records and Brunswick phonographs were produced in large numbers. However, at no time during the fourteen years that Brunswick manufactured phonographs and the ten years the company recorded and pressed records were they the main products of the Brunswick-Balke Collender Company. Still, by 1922 Brunswick passed Edison in production of phonographs and records, making the big three U.S. phonograph companies, Victor, Columbia, and Brunswick. Brunswick is better known in the business community as the oldest and largest manufacturer of recreation productions in the United States. Brunswick's commercial successes in billiard and bowling products enabled the company to diversify into manufacturing phonographs, records, radios, and in more recent times, marine, medical, defense, and even aerospace products.

The Brunswick Company was founded in 1845 by John Moses Brunswick. Very few American businesses date that far back. The history of the company is one of risks and challenges in the midst of social, economic, and technological changes and the unpredictable nature of public taste. For most of the 19<sup>th</sup> century the company was a family business headed by the Brunswick and Bensinger families. From the first John Brunswick had two goals. One was to make the finest and best products possible. He was quoted as saying, "If it is wood, we can make it, and we can make it better than anyone else." (9) The second objective was to diversify production lines to counteract fluctuations in business cycles. These goals have served over the decades as a corporate philosophy and continue to guide the company today.

#### John Brunswick

John Moses Brunswick was born in Bremgarten, Switzerland, on October 16, 1819. Sadly, his mother died when he was born. When he was two his father, Benedict Brunswick, remarried and eventually gave his son four half-brothers. In his youth John heard stories of the life and opportunities to be had in the land across the sea. When he was not yet fifteen he decided to immigrate to America. In 1834 with some friends of his father he sailed from Bremen in a tall sailing ship crowded with other emigrants. The crossing was difficult and took forty days. The passengers were crowded together on a floor loosely covered with sawdust.(9) John Brunswick found New York a noisy city with a frantic pace of life. Clever with his hands, John Brunswick worked for a firm that made deluxe carriages. After six months he moved to Philadelphia where for four years he worked as an apprentice carriage maker. In nearby Harrisburg he met and married seventeen-year old Louisa Grenier; John then worked for a year in his father-in-law's carriage factory.

In 1840 the young Brunswick family moved to Cincinnati, Ohio, where they lived among a large German community and again John worked as a journeyman carriage maker. He first worked in the factory of the Bruce Brothers, then with Lawyer and Company, and finally in the Fulton Omnibus Factory until the economic depression of 1841. John found work as a steward on a steamboat that plied the Ohio River and for two years and he did quite well as a commodity trader. However, due to ill health and the urging of his wife, on September 15, 1845, John Brunswick opened his own carriage shop in Cincinnati and hired a few men willing to work hard and long hours. When there were no carriages to be made, John and the men would make tables,



chairs, cabinets, and just about anything made of wood. John's company prospered and expanded; his success made John Brunswick a local businessman of note. He was involved with local politics and important cultural and social events. He was a member of the Odd Fellows. In 1871 John Brunswick was elected to the post of Cincinnati alderman. In 1874 on the Democratic ticket he was elected Senator for the Ohio State Legislature where he introduced many new bills. At a dinner party one evening John Brunswick saw his first

billiard table, which had been imported from England. Immediately he saw the potential there would be for finely crafted billiard tables.(263,264)

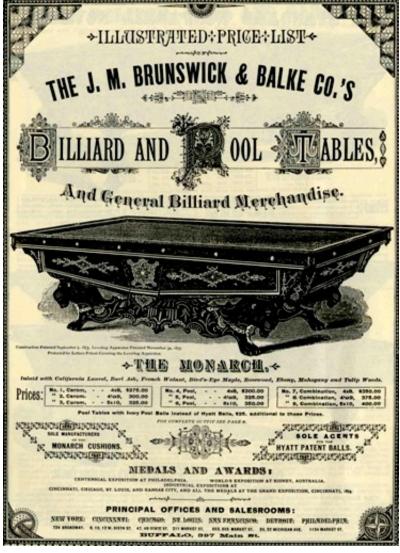
Despite the image problem billiards had—it was a crude game at best and considered an idle pursuit by many—billiards was fast growing in popularity among Americans. John and his men started building and selling billiard tables. The tables were heavy and made of fine woods; some models were very ornate. Within two years orders came from as far away as New Orleans and Chicago. John Brunswick decided to expand production and he sent for his half-brothers in Switzerland. Three new billiard factories were built in Cincinnati. Soon the Brunswick brothers opened a sales office, another factory, and a billiard parlor in Chicago; they were led by brothers David and Emanuel. The billiard parlor was located on Washington Street and had eight thousand square feet. In 1852 a sales office was established in New Orleans. In 1859 a sales room and billiard hall were opened in St. Louis. Brothers Joseph and Hyman worked in the firm's Cincinnati offices. In 1866 the brothers formed the J. M. Brunswick & Brothers Company.(9) At first Brunswick made ivory billiard balls from elephant tusks and many elephants were sacrificed to supply the ivory. Similar to a tree, an elephant tusk grows in an annual ring. A blood vessel that passes through the center of the tusk was used as the point where the ball is pinned when being turned; the ball must be perfectly round. Around 1906 Brunswick started to produce balls of different composition materials, including Celluloid and Bakelite.

By 1869 Brunswick's major competitor for the mid-West billiard market came from Julius Balke's Great Western Billiard Manufactory in Cincinnati. In the east it was the Phelan and Collender Company of New York. On May 16, 1865, John Brunswick's daughter, Eleanore, married Mr. Moses Bensinger. With the help of his new son-in-law John Brunswick entered into negotiations with Julius Balke and in 1873 the companies merged, forming the J. M. Brunswick and Balke Company with John Brunswick as president. In the 1870's John Brunswick's ambitious half-brothers gradually left the company to start rival firms and billiard parlors in



Chicago and San Francisco. In 1879, after Michael Phelan had died, Hugh W. Collender merged with Brunswick and Balke. This formed the largest billiard equipment company in the world. In 1884 they formed the Brunswick-Balke-Collender Company and issued stock. A board of directors was formed. Incorporation was in the state of Ohio. On May 3, 1882, John Brunswick's daughter, Elisa, married Isaac G. Deutsch. Their son, Percy L. Deutsch, became an important Brunswick executive in the 1920's.(262)

While John Brunswick remained at the Cincinnati offices, increasingly Moses Bensinger took over more of the daily



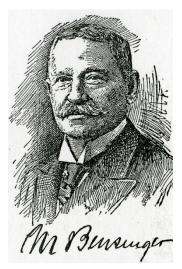
was given to Moses Bensinger.

operations of the fast-expanding company from the Chicago offices. Two of John Brunswick's own sons died tragically as youths. Just 16, Louis Brunswick drowned while swimming in the Licking River. His brother, Harry, age 21, was trapped on board the steamboat United States when on December 4, 1868, it collided with the steamboat America on the Ohio River. Barrels of coal oil caught fire; the United States burned with the loss of seventyfour lives, including Harry Brunswick.(95) On July 23, 1886 John Brunswick suffered a heart attack and died two days later at his home on Grandview Avenue in Cincinnati's East Walnut Hills. John and several members of his family are buried in the Walnut Hills United Jewish Cemetery. John was survived by his wife and five of his seven children.(263) Hugh W. Collender took over as president of the firm, but when he died in 1890 the leadership

#### **Moses Bensinger**

Moses Bensinger was known to be a hard worker and to enjoy challenges and risks. He was eager to produce products which would expand the company. He began to design bars and bar furnishings. Soon Brunswick craftsmen and wood workers were making front and back bars. Back bars were amazing structures, often massive and imposing with columns, rich woods, large mirrors, and stained glass. Many had ornate carvings. The purchase of a Brunswick bar was a sign of elegance and respectability. The bars were produced at Brunswick's factory in Dubuque, Iowa, along the Mississippi River, which permitted convenient shipment. Orders for the West Coast were sent by ship around Cape Horn. Many of the Brunswick bars and back bars are still in use today.(9)

In the 1880's Moses Bensinger moved his family to Chicago where the Brunswick Company was building three new factories. One was six to eight stories high and covered an



likely heir to lead the company.(9)

entire city block at Huron and Sedgwick Streets north of the Chicago River. For a time this building was familiar to Chicago residents as "The Brunswick Building." It had a factory, warehouse, and lumber drying plant. Later it was called the Huron and Orleans Building; it burned in 1989. Brunswick also built a five-story main office building on State Street and a smaller factory at Rush and Kinzie Streets. Though John Brunswick's youngest son, Benedict Henry, became a vice-president of the company at the Cincinnati office and Balke's son, Julius Jr., became a Brunswick executive, neither played a major role in guiding the company. Through the 1890's Moses Bensinger groomed his son, Benjamin, to be the most

In the 1890's Moses Bensinger began to notice many of Brunswick's clients were installing bowling lanes in their taverns and bars and the bowling lanes were generally in use. The popularity of bowling had grown steadily but slowly over the decades since it was introduced to colonial America. It was first played on wide outdoor fields and was called, "ninepins" or "skittles." The Puritans, however, believed the game promoted laziness and gambling and it was outlawed in most of the thirteen colonies. Some enterprising Connecticut players simply added another pin and argued that the new game, "ten-pin bowling" was not the same. Gradually the game moved indoors into taverns and restaurants since owners found that the game would attract customers.

The Brunswick Company entered this new field and began to manufacture pins, lanes, and wooden balls. Gradually Bensinger increased the company's facilities to manufacture these items and before long Brunswick was the dominant company in a new and expanding field. In 1895 he helped organize the American Bowling Congress which standardized equipment and



rules of the game. Brunswick found that Georgia pine (*Pinus palustris*) was the superior wood for forming the long bowling bed or lane with a short section of maple wood at the front and far ends.

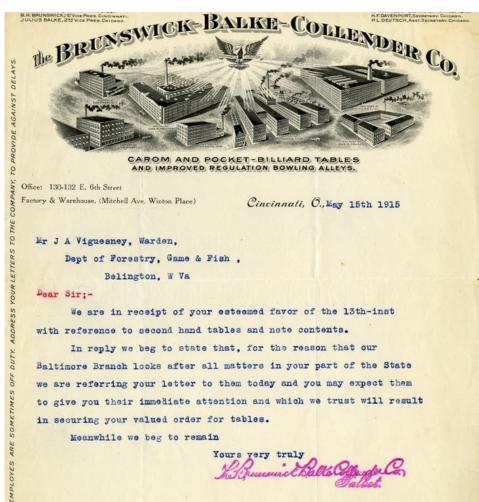
#### **Benjamin Bensinger**

When Moses Bensinger died on October 15, 1904, Benjamin Edward Bensinger assumed the presidency of the Brunswick-Balke-Collender Company, a large and prosperous firm with sales offices in several American cities and in Canada and Mexico. Brunswick factories were located in Cincinnati, Dubuque, Chicago, and New York. Benjamin Bensinger immediately began plans for a new factory at Muskegon, Michigan. This site was selected because it was across Lake Michigan

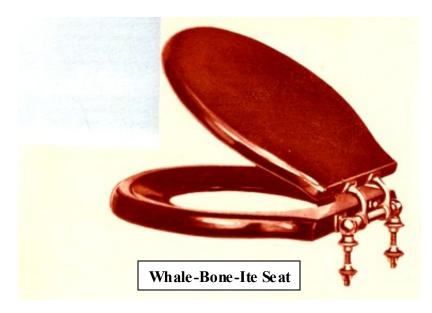
from Chicago. With its own lumber boats, the Brunswick Company could send lumber from its own mill at Big Bay, Michigan, to the new factory at Muskegon. This wood came from the thousand plus acres of hardwood forests Brunswick owned near Lake Superior. The new 100,000 square-foot plant opened on October 15, 1905. The Brunswick factories became very important to the Muskegon community. Brunswick even provided company subsidized housing for new employees, thus forming what local residents called "Brunswick Row."

In 1906 Brunswick began selling a new type of bowling ball made of hard rubber which was called the Mineralite. It was vermillion in color and quickly boosted the popularity of bowling. With this, Brunswick began to develop and experiment with rubber products.

About this time Benjamin Bensinger became aware of a growing problem that could affect the Brunswick Company—prohibition and the temperance movement. Public sentiment was increasing against the evils of alcohol in all forms. In 1906 the Anti-Saloon League was formed by a group of prohibitionist preachers, teachers, and businessmen. The movement grew rapidly and became national. Its political action was well managed. Increasingly American newspapers supported the cause. Billiards and bowling had enough problems with detractors,



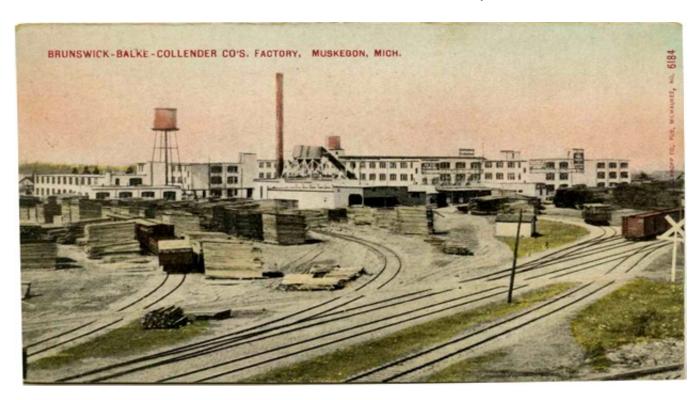
but bars were a more obvious problem. Bensinger prepared for the inevitable and cut back production of the large and expensive bars. Brunswick still had a steady market with a complete line of refrigerator boxes, church furniture, and interior wood trim for banks. restaurants, and commercia1 buildings.(9) Brunswick eventually. discontinued production of church furniture because of poor collection and credit conditions.



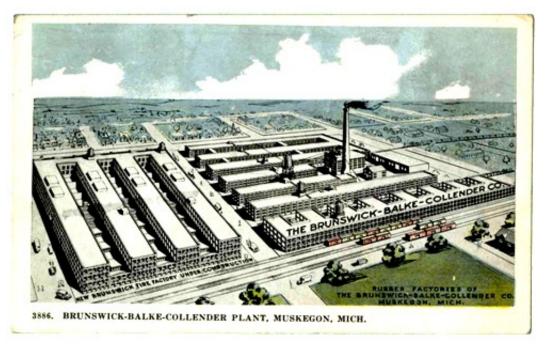
In 1909 the Brunswick Company dissolved its Ohio corporation and re-incorporated in the corporate-friendly state of Delaware. Annual meetings of company executives were held in the Chicago offices on the first Monday in April.(29)

In 1912 the company introduced a first—a hard rubber water closet seat. It was called the Whale-Bone-Ite and it was a sensation. For a public accustomed to wooden toilet seats (which tended to split and crack), the Whale-Bone-Ite was a welcome modern invention. Eager customers were everywhere and production of the seats reached 120,000 a year. Brunswick also began experiments

to make automobile tires and tubes.(9) In 1913 a fire destroyed the five-story Brunswick office building on State Street in Chicago. Eventually the main offices of the company were established at 623-633 South Wabash Avenue in Chicago. Other main offices were at Seventh and Main Streets in Cinc innati and 29 West 32<sup>nd</sup> Street in New York City.



Benjamin Bensinger looked for other ways to use the men and machines idled by the reduction of the bar furnishing business. He considered many ideas, from an expansion of the company's furniture line to building wood frames for automobile bodies. An employee in one of the Chicago factories suggested making piano cases. Piano cases required considerable skills in wood craftsmanship and Brunswick was most renowned for its art with wood. Not many changes were needed in the Brunswick factories. Soon orders from piano manufacturers were sufficient to keep nearly all the woodworking facilities busy. Two years later, however, the piano business slumped badly and orders for piano cases fell.



Casting about for yet another growth project, Benjamin Bensinger asked his sales workers to check advertisements in newspapers to look for popular selling items. The item ultimately selected was the phonograph cabinet. With the dance craze sweeping the land, phonographs and records were major selling items. Sales of phonographs usually centered on the style and quality of the cabinets and the cabinet was the most difficult part of the phonograph to manufacture. Brunswick contacted the major phonograph companies to inquire if they would be interested in bids on phonograph cases. Before long orders for one million dollars worth of phonograph cases kept the Brunswick factories humming. The Edison phonograph company was Brunswick's principal client.

Despite this success, Benjamin Bensinger was not pleased. The Brunswick factor ies were making excellent quality phonograph cases in several styles, but these were sold under different trade names. He felt this was an affront to the traditions of the Brunswick Company. He began to urge Brunswick executives to consider making and selling their own brand of phonographs. The idea made some executives nervous, but Bensinger was determined. He instructed two workers at the Muskegon plant to make two demonstration models. He gave them fifty dollars to purchase the hardware needed to complete the machines. They were ready by April 3, 1916; the Brunswick executives were pleased with the new products.(9)

The story that Brunswick began manufacturing phonographs because the Edison Company refused a shipment of cabinets from Brunswick persists and is often repeated.(21) Brunswick was expecting the cabinet contract with Edison not to be renewed and it was decided to begin manufacturing two styles of complete Brunswick phonographs. The plan became official on April 20<sup>th</sup>. A press release announced, "This is an advance notice of our intention to put a high-grade phonograph on the market. Samples together with advertising matter will be ready inside of sixty days. Our best quality machine, which will compare favorably with any high-grade machine on the market sold at \$250.00, will list at about \$150.00. This will be the same quality of cabinets that we are now producing for other makes of \$250.00 machines. The tone arm and sound box will be gold plated. The motor will be Swiss-American, and best of all it will be provided with both Emerald or Black Diamond points, and regulation needles, so that it will play any of the four styles of records on the market...."(9) During the 1910's the demand for phonographs and records exceeded the supply; it was logical to enter this lucrative market.

In April of 1916 a representative from the *Talking Machine World* paid a visit to the huge Brunswick factory in Dubuque, Iowa. On pages 64 and 65 of the June 15th issue an article appears on the Brunswick factory, "A Factory Where Efficiency is the Watchword." The Brunswick Company claimed to be the largest manufacturer of cabinets in the world and the company guaranteed the highest class cabinet work and prompt deliveries. One photograph in the article exhibits a long line of the Edison "Chippendale" Model C250 Diamond Disc phonograph cabinets and another photograph exhibits a pile of C250 cabinet lids. The Brunswick factory was found to be well-equipped with modern time and labor saving devices.(107)



The first six Brunswick phonograph models; cabinets were available in oak or mahogany wood. Each model (style) was identified by the listed price.

Brunswick announced plans to introduce to the public six phonograph models with an advertisement in the June 15. 1916 issue of the *Talking* Machine World—all upright floor models-ranging

in price from \$55.00 to \$200.00. Exclusive agencies were being awarded and anyone interested in selling the Brunswick phonographs was urged to "...write us for details."

#### A FACTORY WHERE EFFICIENCY IS THE WATCHWORD

Plant of the Brunswick-Balke-Collender Co., in Dubuque, Ia., Which Is Being Devoted to the Manufacture of Talking Machines, Unusually Well Equipped According to Modern Ideas

—Time and Labor Saving Devices Used—Machines in the Making—Interesting Review

CHECAGO, ILL., June 10.—The question that is invariably asked by the trade nowadays when the announcement has been made of a new concern entering the talking machine manufacturing field, is "Will it be able to make deliveries?" There need be little doubt as to the ability in this respect of the Brunswick-Balke-Collender Co.

Peculiar conditions surround the talking machine debut of this great corporation. It might almost be said that this concern came into this line fully equipped. When the company decided to bring out the Brunswick talking machine it was potentially ready. In its well-equipped plants at Muskegon, Mich., and Dubuque, Ia., this company had been making cabinets for other talking machine manufacturers for some time. In fact, although this has not been generally known, quite an amount of installing had been done. Not only had this concern had the collective experience of years of cabinet making, but in charge of the piano case and talking machine cabinet departments was a man who had had years of experience in piano factories and was a thoroughly equipped acoustician as well as an expert case designer. It is the purpose of this article to give some idea of the company's plant at Dubuque, where something like 16,000 Brunswick talking machines are now in progress of construction, and where a great many more will be put in work in the course of a week or two. These instruments will be ready for shipment, in considerable quantities, on August first.

The plant at Dubuque is an unusual one in many ways. It has been possible for the company to do there what it could not do in larger cities, because of the disproportionate cost of land. The factory buildings themselves occupy from eight to ten acres, while the whole plant, including lumber yards, auxiliary buildings and

Where the Covers Are Made

ided for the purpose of future expancovers something like thirty-five acres.
re four-one-story buildings each 800 feet
age by something over a 100 feet wide, giving
a total space, including auxiliary buildings, of
somewhere between 350,000 and 400,000 square

feet. The plant is on the main line of the Great Western and connects directly with the Illinois Central, Chicago, Milwaukee & St. Paul and C. B. & Q. railroads. The yards contain at all times at least two and one-half million feet of lumber, giving plenty of time for further weather seasoning before admission to the dry kilns. Speaking liberally, the plant is run by One of the most interesting places of the whole plant is the immense veneer store room. When The World man visited it, he was told that there were something like two million feet of mahogany, 500,000 feet of quarter sawed oak, a couple of million feet of poplar, besides a few other little items which are forgotten.

From the dry kilns the lumber is run on trucks across other trucks, which are in effect clever, movable pontoon bridges, into the mill room. It would take much more space that is here available to give the slightest idea of the superb equipment of this most important de-



Two City Blocks of Phonograph Cabinets at Dubuque factory

electric power and compressed air. In the big power house at the north end of the plant there are two immense 400 horsepower boilers, hydraulic equipment for running the veneer presses and an immense air compressor for supplying the varnish sprayers, etc. There is also an isolated electric lighting plant. machines throughout the plant are run by individual motors, supplied by power current from the city plant. The plant has its own fire protection and its own fire company organized among the employes, and an artesian well 1.209 feet deep, which furnishes an excellent fluid for quenching internal as well as external fires. Adjoining the power plant is a completely equipped machine shop for repairing tools, die making and the like. The big dry kilns, which are also located at this north end of the plant have a capacity of 250,000 feet of lumber, which is brought into the kilns from the yards on transfer trucks. The kilns are of the very latest and most approved construction and there is a remarkable apparatus for testing the lumber for moisture. If the test shows a greater percentage of moisture than that approved as a result of experience, the lumber is put back in the kilns.

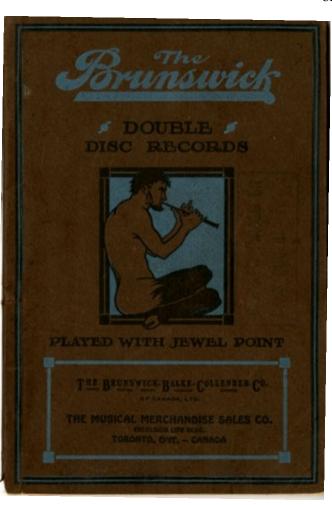
partment of the plant. It is hardly necessary to state that a concern like the Brunswick-Balke-Collender Co. does nothing in a slipshod way. If to-day, John Ehrenpreis, the efficient manager of the Dubuque plant, looks over his machinery and decides that every machine constitutes the last word in the perform-



A Section of the Varnish Department ance of its particular function, well and good; but if to-morrow he is shown something new and which impresses him as being better, it is a ten to one shot that an order is immediately placed for the new and better.

There are automatic lathes that are wonderful.





These phonographs were not given model names, but were indicated by the price. Thus Style 55 cost \$55.00, Style 100 cost \$100.00, etc. However, due to shortages caused by World War I, by November prices were increased, depending on the model, fifteen to twenty-five dollars.

At the same time Brunswick delved into selling vertical-cut shellac disc records to test the potential market. These records were not sold in the United States; instead they were sold in Canada only as part of an agreement with the Pathé Freres Phonograph Company. Pathé had opened recording facilities in New York City in 1914 and a large record pressing plant in Belleville, New Jersey. In September of 1915 Pathé claimed to have the largest

records catalogue in the world, with over 96,000 selections. (106) The arrangement with Pathé called for Brunswick not to sell Brunswick records in the United States, but to sell Pathé records from its outlets. Brunswick dealers were to advertise the Pathé records in local newspapers and magazines. Brunswick phonographs were also designed to play the Pathé discs. Pathé agreed to purchase cabinets from Brunswick. (12)

Similar to Pathé records, the vertically-cut Brunswick records were double-sided shellac discs designed to be played with a ball-shaped sapphire stylus mounted into a metal shank. The earliest records had a gold-on-green label in rustic design. Pathé was the probable source for these records although there is

no evidence that Pathé used its own material on the Canadian Brunswick discs. It is possible Brunswick commissioned Pathé to record and press records for Brunswick's exclusive use. In early 1918 an eighty-three page records catalogue was published by the Brunswick-Balke-Collender Company of Canada, Ltd., and was sponsored by the Musical Merchandise Sales Company, Excelsior Life Building, Toronto, Ontario. The catalogue lists all selections issued up to and including December, 1917. Most of the records listed in the catalogue were popular selections and sold for ninety cents. No operatic records were listed and the only classical selections were violin solos by Elias Breeskin and songs by bass Frederick Martin; their discs sold for two dollars. Semi-classical selections by contralto Marie Morrisey were listed for two dollars or for two and a half dollars per record.(6) The last vertical discs were issued in 1920 and had the more familiar black, white, and gold Brunswick record label with the legend, "Jewel Point Record" under the Brunswick name. Premium records had a red, rather than a black label and had a "1" in front of the 5000 sequential record numbers.

The agreement with Pathe did not last long. The last Brunswick-Pathephone advertisement in the *Talking Machine World* appeared in the August 15, 1916 issue. In the September 15th issue a small article, "Changes in Brunswick Deal" announced that the Pathé Freres Phonograph Company would no longer purchase cabinets from the Brunswick Company and that Pathé would manufacture and market all Pathephones.(108) In its October 15th *Talking Machine World* advertisement, Brunswick stated they were still under contract to sell Pathé records.

In a two-page advertisement on pages 50 and 51 in the October 28, 1916 issue of the *Saturday Evening Post* the Brunswick phonograph was introduced to the public, "The Brunswick



Phonograph – A Phonograph Sensation." The first six Brunswick upright floor model phonographs were illustrated; the Pathé connection was hailed as "An International Alliance." An early Brunswick dealer was The Brunswick Shop, located at 19 East Jackson Blvd. in Chicago: the shop advertised in the November 2, 1916, Chicago *Tribune* in time for the Holiday sales. The shop offered the new "fancy style" (Style 175) Brunswick phonograph plus ten Pathé records for \$182.50; easy terms were offered. The shop also provided "daily concerts" by the Brunswick phonographs every day starting at 10:00 a.m. Brunswick termed the volume control device in the Brunswick

models as the "Vox Humana" tone regulator. The shop also sold Pathé disc records. In the December 12, 1916, *Chicago Tribune* on page eleven, the Style 150 model was advertised as the



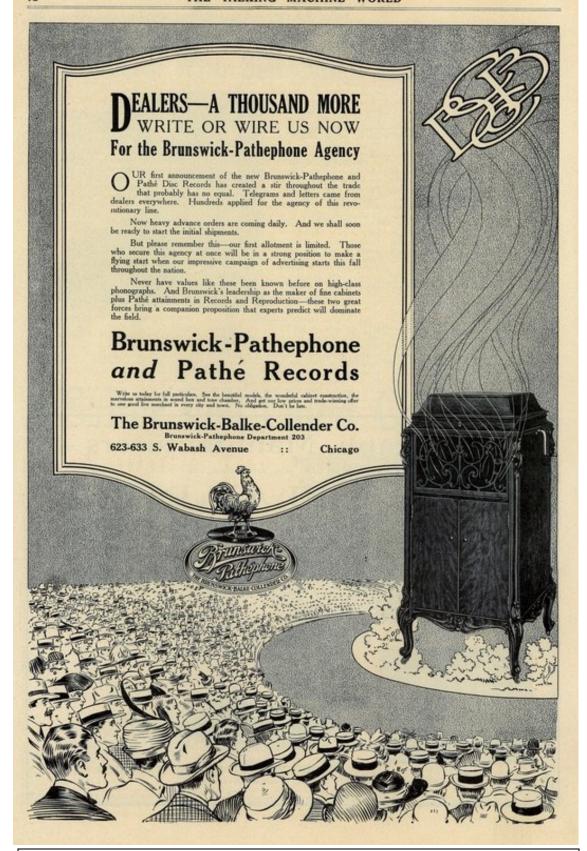
H. B. Bibb

Brunswick Royal phonograph. Brunswick's phonograph business listed a loss of \$18,000 in 1916. An article in the September 15, 1917 *Talking Machine World* mentioned Brunswick's plans to introduce a new phonograph model; it would feature an oval-shaped internal horn.(110) By October, 1917, Harry B. Bibb, Sales Manager for the Brunswick-Balke-Collender Company, claimed the Brunswick Company had over one thousand dealers nation-wide and the Brunswick factories were running twenty-four hours a day.(111) In December, 1917, The Phonograph Shop at 225 South Wabash Avenue in Chicago offered the Style 175 (in mahogany or oak) and ten double-faced records for \$187.50; easy terms were offered--\$2.00 per week. The smaller and less ornate Style 110 and ten records was available for \$122.50 with easy payments of \$1.25 per week.(223)

In 1905 the Brunswick-Balke-Collender Company of Canada built a five-story factory at 38 Pacific Avenue in Toronto. The factory manufactured billiard tables and accessory items. In 1909 the street's name was changed to Hanna Avenue. Eventually the Hanna Avenue factory also manufactured bowling balls, pins, and bowling lanes. Later the factory was enlarged with two additions and phonograph records were also pressed for the Canadian market. On page ten of the September 18, 1917, issue of the Toronto Daily Star, The Brunswick Shop, located in the Stanley Piano Warerooms at 241 Yonge Street, advertised for sale the \$90 and \$100 Brunswick phonograph models. No mention of Brunswick records was included.

Starting in 1917 Brunswick used the icon of a young lady listening to the Brunswick phonograph—"The Brunswick Girl." Life-sized color cut-out figures of the lady clasping her hands while listening were supplied to dealers. Large steel signs for outdoor use were also made. These measured 11 X 28 inches and had baked-on colors, making the signs weatherproof. The young lady was given the name Iona Brunswick and for a time made personal appearances at Brunswick dealers.

During World War I Brunswick experienced shortages of labor and materials, as did most manufacturers. In 1918 the metal allowance available to the phonograph industry was reduced to forty percent of the 1917 level. Shipping and delivery delays were a continuing problem; a paper shortage occurred. The Revenue Act of 1918 imposed a special five percent tax on the sales of pianos, phonographs, player pianos, and other musical instruments. By late 1918 Brunswick announced it would be able to supply its current dealers but was unable to open new accounts. Imports of graphite were restricted; good quality mica was not easily available. In November 1918, just as the holiday sales season was beginning, the influenza epidemic hit a number of United States cities and many local boards of health ordered businesses to close early each afternoon. Despite this some Brunswick dealers completely sold all their stock by December 25th. By 1919 the Brunswick phonograph division had a profit of \$703,000. Phonograph production at the Muskegon plant reached 750 phonographs a day. Brunswick dealers continued to advertise and sell Pathé records.



# BRUNSWICK





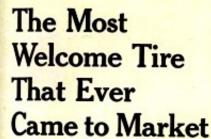


Unlike most companies starting to manufacture phonographs, Brunswick had a major advantage with its own large cabinet manufacturing facilities as well as a nation-wide retail network. Brunswick was able to place large numbers of phonographs on the market in a relatively short time. Brunswick claimed, "We have cut costs enormously by our efficiency methods and tremendous output." A range of upright floor models and smaller table models were produced. Eventually console floor models as well as a line of period models and custom-built cabinets for the higher priced markets were added. Many of the expensive models featured large ornate cabinets with hand crafted designs and carvings, a testament to the wood workers at the Brunswick factories. Several of the large and ornate Brunswick art cabinets were designed by noted furniture designer, David Zork. David Zork had a factory and store at 201-207 North Michigan Avenue in Chicago. The company advertised they were, "... makers and importers of the finest furniture in the world." Mr. Zork collected antique furniture from Europe and used these original pieces to inspire designs for the Brunswick cabinets.

Phonograph cabinets made of mahogany wood were preferred by the buying and listening public in the United States. Then in order of preference came cabinets of oak, walnut, gum, and other woods. After World War I most phonograph cabinets were made of high quality veneers. Three, five and seven-layer ply woods were used. Three ply was thinner and was used for the smaller cabinets while seven ply was used for piano cases and the high priced phonograph cabinets as it was better for curves and carvings. The cross bands were made of wood that was easy to work and would hold glue well. Plywood has greater strength and maintains its shape with less tendency to warp and twist than solid wood. Typically mahogany veneer is approximately twenty-five percent of the board with seventy-percent other woods.(116)

With nearly five thousand employees and nine large factories, 1916 proved to be a year of activity for Brunswick. In addition to the new phonographs, the rubber division started selling Brunswick brand tires and tubes for automobiles. Still, billiards continued to provide the financial foundation that permitted Brunswick to venture into other products. By the 1920's there were over 42,000 poolrooms in the United States, 4,000 in New York alone. In some cities elaborate parlors became landmarks and tourist attractions. A number of famous pool players emerged. Brunswick became the world's largest user of hardwoods; annual production of pool cues alone was more than 400,000. Brunswick made and sold fifteen different models of billiard tables. Even the medium-priced "Madison" model weighed 1,950 pounds and was finished in mahogany with white holly inlay, black border, and egg-shell gloss. Since solid wood table tops could be damaged and become uneven with use, each table top was finished with a flat layer of slate. Brunswick owned its own slate quarries at Fair Haven, Vermont, and Wind Gap, Pennsylvania. During World War I Brunswick made gun stocks and wooden wings for airplanes. Some company profits were used to purchase Liberty Bonds.(9,29)

It is likely many important business as well as national and international issues were discussed and decided over the slate of a Brunswick billiard table. Famous owners of a Brunswick table include Abraham Lincoln, General George Custer, Buffalo Bill Cody, Andrew Carnegie, John D. Rockefeller, William Vanderbilt, Henry Ford, J.P. Morgan, William Randolph



Some remarkable facts about Brunswicks



The Very Name of Branswick Certifies an Extraordinary Tire

HE latest tire—the Brunswick—is today the sensation of tiredom. The demand is overwhelming. Single orders have been placed as high as \$300,000. All because the very name of Brunswick certifies an extraordinary tire.

It meant a great venture for the House of Brunswick to undertake tire making. Brunswick products in other lines have always held supremacy. And the general idea was that the ruling place was occupied in tires.

But every tire is built to certain standards. Every great tire features certain advantages. Now the Brunswick combines all known supremacies. Thus this super-tire conforms to Brunswick ideals,



First we secured a staff of experts—masters of this craft. Each came from a famous factory. Each had pent at least 20 years in making high-grade tires. Each pledged himself to the Brunswick idea. That is, to build the best tire possible regardless of its cost. And the Brunswick Tiee will prove to you that they've fulfilled the release.

While our factory was building, this brilliant staff spent two years in the study of all tirea. They analyzed and tested more than 200 types. They proved out every feature, every formula used in any tire. Not by theory, but by test. Now the Bruns-wick Tire combines every advantage developed in tire construction.

There is a certain formula, long in use, which makes best tire tread that's known. In Brusswick Tires we that formula.

e that formula.

There is a certain type of fabric which, by test, is conger than all others. It is now in all Brunswick Tires. There are certain reinforcements—certain extras— which add vastly to tire mileage. We have adopted all.

There is a certain construction which best combats the commonest tire troubles, and we use it.

That is all there is to good tire making. No secrets, no patents prevent any maker from making an ideal tire. It is a question of cost and care and skill. Also of policy and standards, of prejudice and knowledge. Tires differ as men differ.

We have disregarded cost. We doubt if ever before a a tire been sold on so small a margin.

Yet Brunswick Tires cost you the same as other like-type tires. Our saving is on selling cost, through our nation-wide organization.

standard tire.

And every buyer gets it. In a year from now this tire is bound to stand unique among all fabric tires.

See what these standards mean to you by testing a tire or two. They are sold on a 5000-mile adjustment basis. No other tire which we have found gives you so much for the money.

and Tubes-Three Types of Tread

We Offer to Dealers a Unique Opportunity. Write Us for Our Proposition

The Brunswick-Balke-Collender Co. Small 623-633 S. Wabash Ave., Chicago Branches in the Principal Cities of United States and Canada

May 18. 1918

Hearst, Teddy Roosevelt, Mark Twain, Babe Ruth, Humphrey Bogart, and Frank Sinatra. President Eisenhower furnished Camp David with four Brunswick tables. Every president since has used these tables. Ronald Reagan and Margaret Thatcher were known to be good players. Abraham Lincoln was a self-confessed "billiards addict."

In 1905 Edward Lyman Bill, publisher of several New York trade publications, founded a trade magazine for the talking machine industry, the *Talking Machine World*. The monthly issues were large, measuring nearly 11 by 15 inches; the paper high quality. The subscription was low (\$1.00 per year before World War I; \$2.00 after) because advertisements paid for the issues. Advertisements cost \$5.50 per inch; a full page cost \$150, with discounts for yearly contracts. Since individual issues were quickly out of date, most dealers and agents did not keep them; thus today this is a rare and valuable journal and a special reference source. It is rare when an issue appears on eBay and bids can exceed \$200 for a single monthly issue. Numerous-full page advertisements appear in the journal, most by the larger phonograph and record companies. Each issue contains articles on trade developments in various parts of the U.S. as well as the comings and goings of noted recording artists and company executives. At the back of each issue two pages describe and illustrate new patents related to machines, records, and recording devices. Also at the back are several pages of "Advance Record Bulletins," which list new records being issued by major and most minor record companies, making this a special reference for phonograph records.

#### **Brunswick Phonographs**

Closely examining the Style 125 Brunswick phonograph in the author's collection, the high quality of the handsome mahogany cabinet is obvious—a cabinet worth more than the \$125.00 dollar listed price. The hardware used were not yet Brunswick products, but purchased from other sources. For this model the exposed hardware is nickel plated. Two reproducers are included—a smaller one for playing lateral-cut shellac records and a larger one for playing the Pathé and other vertically-cut shellac records. The two reproducers probably came from different sources; the Pathé Company may have been the source for the Pathé reproducer. It is necessary to change reproducers depending on the type of record being played. Despite their age both reproducers have good sound reproduction. At the back of the motor board and just below the lid hinge is a specially-designed small frame covered with green felt to hold the reproducer not being used. The cabinet has the usual wood cups for holding needles and one cup holds the traditional small metal can with the hole in the center of the lid for dropping used needles. The motor board is black-painted wood; it has two finger lift holes. The two-spring motor is well made and runs quietly. The internal wood horn is square at the open end and connects to the cabinet sides. Behind the two cabinet doors are vertical slats and two lower shelves for storing records. Early researcher, Ulysses "Jim" Walsh, in his article on "Favorite Pioneer Recording" Artists" in the September, 1972, issue of *Hobbies* claimed, "The new Brunswick had excellent tone quality and most students of recorded sound rank it second to the Edison." Despite the hyperbole, he also stated, "... its rendition of Pathé sapphire ball discs was splendid and its reproduction of lateral-cut records above the average."(48)

## These Brunswick Features

Are the Features All Phonograph



Judging by all things, people expect to pay more for The Brunswick than for other phonographs. To the contrary, the prices are less.

THESE features are all selling features. Most of them are exclusive Brunswick features. And it is features of this kind that make one phonograph better and easier selling than other phonographs.

YOU had better get the Brunswick Dealer Proposition

THE BRUNSWICK-BALKE-COLLENDER CO.

623-633 South Wabash Ave., Chicago

Northwest Corner Seventh and Main Streets, Cincinnati, Ohio

29-35 West 32nd Street, New York



Style 125 Brunswick Phonograph





Pathé -- Brunswick Reproducers -- Lateral

#### The Ultona

In 1918 Brunswick introduced the Ultona reproducer and tone arm. This design was patented by Louis Taxon on September 18, 1917.(256) It was introduced in the March 15, 1918 issue of the *Talking Machine World*.(112) The unusual tone arm was made for Brunswick by the Otto Heineman Phonograph Supply Company. This company made several designs of tone arms, reproducers, spring motors, and other hardware and sold them to phonograph manufacturers, although the company is better known for recording and pressing records under the "Okeh" label. The first Okeh records were vertically-cut and were announced in May, 1918.(113) The Ultona reproducer shell was die cast for Brunswick by the Doehler Aluminum Die-Casting Company of Brooklyn, New York.

For a time Brunswick made transitional models with the Ultona tone arm and reproducer installed in earlier phonograph cabinets. Brunswick called back 1,500 older phonographs from dealers to upgrade them and thereby help dealers with sales. In the author's collection is a Style 150 mahogany Brunswick phonograph with the black wood motor board and square internal horn but with the Ultona tone arm and two-diaphragm reproducer. A small gold key can lock the cabinet lid. Exposed metal parts are gold plated—except for the nickel-plated reproducer. It has a Heineman Model 3 two-spring motor and an unusual maroon velvet-covered turntable. The Brunswick decal is located under the lid in the center (not on the lower back panel). The decal is oval in shape and states in large gold letters, "Brunswick" with "New York Chicago Cincinnati Mexico City Buenos Aires Toronto" and Brunswick-Balke-Collender Company" in small black print beneath. The lower record storage space features vertical slots to hold seventy-five records, each slot with a coded number. Below this are three shelves to store record albums horizontally. For the larger, more ornate, and expensive Brunswick models the exposed metal parts were gold plated while the smaller and less expensive models had nickel plated hardware.



All Ultona reproducers, however, were nickel plated even when other exposed hardware were gold plated.

The Ultona tone arm has two sections. The smaller section is a straight tube at the back end where it is designed to slide in or out of the larger back section as required by the type of record being played.

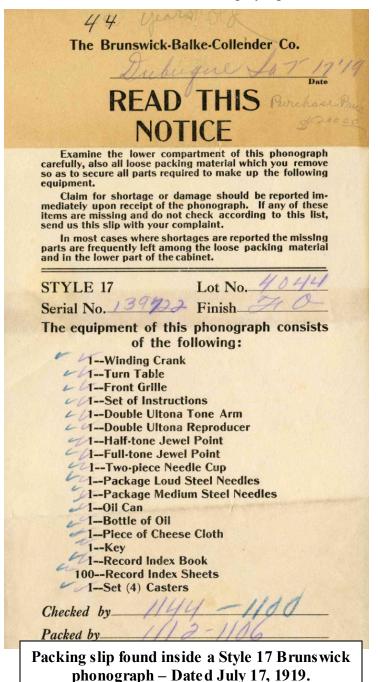
The larger tone arm section has a tapered design. This elaborate design does cause air leaks, although these can be greased. The tone arm is held in place at the base by a large metal support ring which permits horizontal movement and attaches the tone arm to the cabinet with three wood screws. For most models the metal cylinder at the base of the large open end of the tone arm measures one and one-half inches in diameter and is one and one-fourth inches long although in one model it measured two and a half inches. The cylinder connects to a wood tube which extends to the small end of the internal horn.

The Ultona reproducer is designed to play the three main types of disc records then commonly produced. In addition to regular lateral and vertical-cut shellac records, the Ultona is capable of playing the Edison diamond discs. The reproducer has four moveable parts which need to be adjusted to different positions, depending on the type of record being played. Two Ultona reproducer types were produced—the two-diaphragm and the single diaphragm. The



Pathé Stylus Edison Point two-diaphragm reproducer was used on larger, more expensive models with large spring motors to power the turntable; it has a separate mica diaphragm with a semi-permanent diamond point designed to play the Edison discs.(24) The single diaphragm reproducer was used for smaller, less expensive models with small spring motors; it was still possible to play the Edison discs by installing into the stylus bar a metal shank with an Edison diamond point mounted at the tip and the reproducer held at the Pathe playing position.(25) For both reproducer types a ball-shaped sapphire stylus mounted in a metal shank is used to play the Pathé and other vertically-cut shellac discs. Steel, thorn, or

bamboo needles could be used for playing lateral-cut shellac discs. The tone arm has a sliding



weight for providing the proper pressure on the record, vertical or lateral.

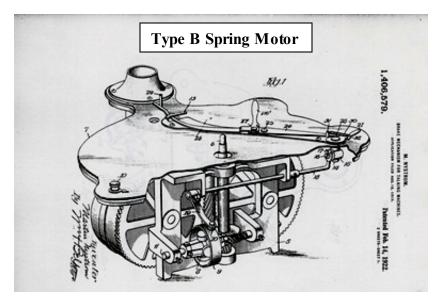
Opinions vary regarding the sound quality of the Brunswick phonographs with the Ultona tone arm and reproducer. Few would call the sound outstanding; most consider it to be adequate. From the vibrating mica diaphragm the sound waves make four ninety-degree turns before reaching the open end of the internal horn. Some collectors consider the large mica diaphragms to be too thick and the needle arms too large and long for ideal compliance. The Ultona Edison stylus bar is thick and made of solid metal; Edison's stylus bars are hollow. The Ultona's Edison linkage to the diaphragm is too thick and stiff; this can filter the vibrations and cause weak sound reproduction. To play the Edison discs it is necessary for the shallow record grooves to move the stylus, heavy reproducer, and elaborate tone arm across the record, thus the need to have the turntable level. There is no gearing mechanism from the phonograph motor to advance the tone arm, as is found in the Edison diamond disc phonographs. The condition of the diamond point needs to be monitored. A chipped diamond point can act as a cutting edge and damage the Edison record grooves.

The advent of the Brunswick Ultona reproducer and tone arm may have been the reason the Edison Company placed warnings on its record envelopes. One early warning states, "This Re-Creation should not be played on any instrument except the Edison Diamond Disc Phonograph and with any instrument except the Edison Diamond Disc Phonograph and with the Edison Diamond Disc Reproducer, and we decline responsibility for any damage that may occur to it if this warning is ignored." A later envelope states, "We decline responsibility for any

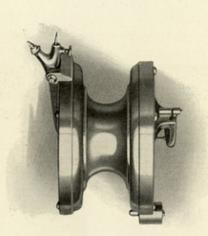
Edison Records which may have become damaged by playing with other than a genuine Edison Disc reproducer. Thomas A. Edison, Incorporated."

Most Brunswick phonographs have a decal under the lid on the lower back panel which states "Brunswick" in large gold script with "The Brunswick-Balke-Collender Company" beneath in smaller black print. Most models have dual spring-action lid supports.(257) Brunswick phonographs have a 12-inch turntable and an adjustable shut-off lever attached to the back lower end of the tone arm. Most models have the semi-automatic shut-off mechanism under the turntable. The motor board in most Brunswick phonographs is black painted metal and has one or two collapsible ring pulls for lifting the motor board and spring motor. Heavy bolts hold and suspend the spring motor below the motor board. The black paint layer is thick and of good quality as it is rare to find a motor board with badly chipped paint. For lubricating the motor works, the motor boards usually have two to four oil holes on the top and the location of each hole is designated by a small decal with "Oil" in gold letters. Most models have a "volume control" knob behind the crank escutcheon on the right (facing) side of the cabinet. The knob connects to a metal rod which pulls a wood block in or out of the small end of the internal horn. The block actually serves as a sound muffler and not a volume control by the traditional meaning. For some models the wood block is merely swiveled open or closed by the connecting rod. Sometimes the wood block has been found to be covered with felt or velvet, but most are uncovered. Sometimes the connecting rod is found to be disconnected from the knob or the wood block; depending on the model, re-connecting can be difficult.

Brunswick spring motors are well-designed and run quietly; most have one to four springs. Many spring motors are found with a bent sheet metal cover under the motor for protection and to catch grease and oil drips. For an extra price electric AC/DC turntable motors were available. For some models Brunswick used a four-spring motor in which the paired springs were arranged in tandem instead of the more usual side-by-side.(258) Called the Type "B" motor, this unusual design was developed by Martin Nystrom of the Brunswick Company. According to the patent description, Mr. Nystrom developed this design, "...to provide a spring motor of simple and comparatively inexpensive construction which can be easily assembled and



installed. A further object of the invention is to provide simple means for overcoming the jumping or spas modic action of the springs and to prevent the same from being communicated to the spindle and the record." However, repairman Fred Deal of Sacramento, California, reports that he has repaired several of these motors and he finds the design places undue stress on one or two of the gears. Martin Nystrom developed and patented most



The Brunswick Method of Reproduction enables this Super-Phonograph to Play All Records Correctly

THE Brunswick method of reproduction consists of the newly developed Ultona and the all wood Tone Amplifier, resulting in a musical unity of perfect tonal qualities, each complementing the other's thoroughly tested acoustic values.

This illustration shows the newly developed Ultona—with two diaphragms, one on each side. Different makes of records can be played simply by changing the position from the full tone sapphire ball for Pathé, shown in upper left hand corner of photograph, to the steel needle at top, or to the genuine diamond point at the extreme right, near the center of the diaphragm.

The Ultona now makes it possible for you not only to play all makes of records, but to play them correctly. Records vary in construction—no two makes are identical in their cutting. Some of them are "hill and dale" lined, requiring an additional weight of Ultona to bring out every fine tone detail.

This modern method of reproduction is the first scientifically designed to adapt itself to the various surface cuttings and tonal requirements of all records by allowing for a changed weight of Reproducer as different makes are played. Those requiring heavier Reproducer to bring out all minute tone details get this right weight by a simple movement of your finger, simultaneously adjusting weight of the Tone Arm and Reproducer. This is fully covered on Page Nine.

In Position for Playing Pathé Records







It is not necessary to change needles when different makes of records are being played. They are in permanent playing position—and the only time you touch them is when new needles are needed. The Ultona is simple, efficient, requiring no attention.

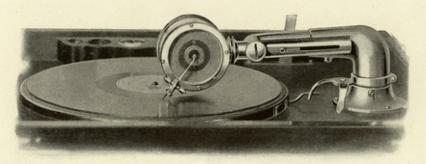
You simply change the position of the Ultona with as little effort as is required in placing a new record on the turn-table—even less. The illustrations on this page show how simply this is accomplished.

The moment your sapphire ball, diamond point, or needle is properly positioned—and right weight of tone arm gained by a finger touch—this instrument begins a quality of musical reproduction unlike anything you've ever heard.

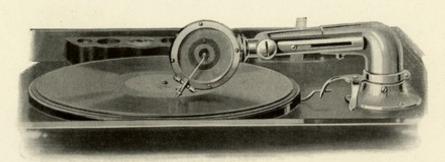
Most of us are more interested in effects than we are in causes—so take our word for it before you get a Brunswick demonstration that the effects are wonderful. Naturally, they could only have been achieved because each step of reproduction was scientifically studied, weighed, and thoroughly analyzed by Brunswick designers.

The resulting finished product is an instrument of many interesting innovations—all of which you will doubtless be interested in studying at the music room of the nearest Brunswick dealer—but for the sake of your future musical pleasure, hear this phonograph play your favorites from the world's best records. Choose from them all.

Then you will know—and then only—how the many good causes have resulted in exceptional effects that make this phonograph stand out from all others.



Needle Position for Lateral Cut Records



Single Diaphragm Ultona Playing Lateral Cut Record

No matter what record you hear at the home of a friend—no matter what advertisement you read of a new musical comedy "hit" or operatic selection first offered—you know that your Brunswick will play that record and play it excellently.

A study of these pages, plus the all-convincing proof found in an enjoyable demonstration—prove to you that tonal possibilities have been taken care of and realized upon as never before. You are proud to own such an instrument—you know that its unique performance will always bring compliments from those who hear it.

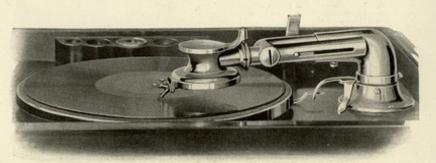
This first achievement of unlimited selection of records with proper playing of each record—will induce a sensible plan of buying.

With the Brunswick, you will only purchase those records which you know are absolutely best in their class. Indiscriminate buying of records is a frequent fault of the "first time" phonograph owner, but Brunswick owners seem to realize—instantly—that this instrument has made possible a new economy in phonograph ownership.

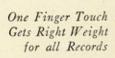
For the owner who does not have to count expense items closely, the Brunswick has opened up an undreamed range of choice—for the man who does want to practice thrift, the Brunswick helps him to make every penny go far.

The illustrations on this page show the Single Diaphragm Ultona furnished with the lower priced machines—playing all records by simple change of position.

Single
Diaphragm
Ultona
Playing
Vertical Cut
Record



The Ultona plays all-records correctly

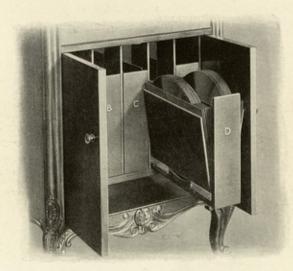




THE cylindrical Tone Arm shown contains a sliding weight which can be instantly and easily adjusted to exactly the right weight of Tone Arm and Reproducer for the record being played. This guarantees an automatically correct playing of all records, no matter how they are cut by their makers. "Lateral" cut records require one weight of Tone Arm and Reproducer—you gain this instantly with one simple touch of the finger. Pathé records or the "vertical" type require added weight. This was proven by many careful tone tests. The Brunswick second adjustment of Tone Arm and Reproducer gives this necessary weight increase and the Reproducer immediately follows the "hill and dale" grooves peculiar to this French record—now played correctly for the first time in the history of any American phonograph.

The Brunswick is the only phonograph with this feature—fully covered by American and foreign patents. Brunswick designers were the first even to attempt proper weight of Reproducer for all makes of records. Its high value will be immediately appreciated by the musician. All surface cuttings of records are now properly taken care of in a simple, effective adjustment of weight in the two most important parts of any phono-

graph's ability to play all records correctly-Tone Arm and Reproducer.



Improved Filing Cabinet Systematically Handles 100 Records FURTHER Brunswick innovations are the throat-way volume control, accurately timed automatic stop, new method of adjusting cabinet lid, and improved record index files.

The tone modifier permits the regulation of volume to the exact shade you prefer. It is operated through the "throat" of the instrument, controlling it as a singer does the voice.

The automatic stop is so constructed that by setting it before the record is started, it automatically brakes on the motor when the record is finished. It is so connected with the tone arm that the adjustment of the reproducer upon the record is accomplished simultaneously with the adjustment of this automatic stop.

Raising of the lid is accomplished through a supporting arm designed on the lever principle, working on a spring which is concealed inside the cabinet. This allows releasing of the lid from its most vertical position, slowly and without slamming of

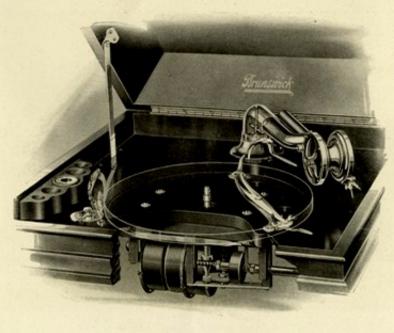
cabinet top. The slightest finger touch will raise or lower the lid.

The improved record index files are the most convenient form for holding, removing, and filing records yet devised—consisting of five compartments containing twenty records each. Compartments are designated by letter and the index book shows exact location of each record by a title such as A-1, B-2, etc. One hundred records of any size are thus quickly indexed and always easy to find.

With its real universality of playing and its many added refinements and conveniences, the Brunswick has the added appeal of costing somewhat less than lesser machines. Type for type—point for point of good musical performance—the Brunswick is the

most reasonably priced phonograph.

The best proof of this will naturally be found in the all-convincing demonstration awaiting you at the dealer's music room.



Automatic Brake— Easy Lifting Lid— Add to Brunswick Playing Pleasures of the phonograph improvements for the Brunswick company during the 1920's.(260)

In advertisements Brunswick claimed the internal horns of their phonographs were made of holly wood. Thin (approximately 3/16-inch thick) sheets of the wood were steam molded over a form, using a press. By September 1918 all horns have an oval-shaped opening. Although these horns are obscured from view by the cabinet grilles, they are beautiful to view and seem almost new with no evident signs of age. The horn surfaces do not appear to be finely finished but have a somewhat rough texture. Most have a simple coat or two of shellac, varnish, or white paint. The smaller back sections of the horns have complex splicing, perhaps to a cheaper wood, in order to connect to the horn throat. A simple short wood tube connects the base of the tone arm to the horn throat. This provides a completely wood sound reproducing system below the tone arm. Regarding the internal wood horn, Brunswick claimed, "It is a vibrant tone chamber like the sounding board of a piano or violin. Constructed entirely of molded Hollywood and free from metal it gives the requisite resiliency for unfolding and projecting true tone." Brunswick advertised the oval tone amplifiers to be built to, "...conform to acoustic laws."

The wood of the holly tree is hard, compact, and close-grained; its color is white and can be buffed to a high polish. It is often used as an imitation of white ivory. Its hardness and even grain makes it superior to other white woods and is prized for ornamental purposes. When stained black it has the appearance of ebony and sometimes used as a substitute for it.

A Brunswick advertising brochure from the early 1920's claimed, "Three Exclusive Brunswick Features:

- --The Brunswick "Ultona" Reproducer plays all records at their best—a turn of the hand adapts it to any make of record.
- --The Brunswick Oval All-Wood Tone Amplifier a valuable aid to perfect tone reproduction—in all cabinet instruments.
- -- The Brunswick Record Filing System, with convenient arrangement of drawers and records—in all the larger cabinet instruments."

The horn on an acoustic external or internal horn phonograph is not an amplifier; it concentrates and directs the sound waves as they emerge from the vibrating diaphragm in the reproducer. Although a horn is never free of resonances, no matter how carefully designed, the horn does not add energy to the sound waves. A well-designed horn provides the passage and expansion of the sound waves. A Brunswick advertisement in the December 15, 1920 *Talking Machine World* issue states that the Brunswick internal horn, "... is made of three thicknesses of light, resonant wood," perhaps indicating the horns were now made of spruce wood.



# The two features that won for Brunswick

In these two exclusive betterments Brunswick achieved what all phonograph makers have sought for years.

The first, the Ultona, is a playing arm which enables you to play any make of record with equal facility. It plays all records just as they should be played, including, of course, Brunswick Records.

It can be said, with truth, of several phonographs, that they can play any make of record. But in all cases except that of The Brunswick this statement implies some bothersome attachment.

The Ultona is an integral part of The Brunswick. There is nothing to take off or put on. And the Ultona is counterbalanced, doing away with those defects in reproduction which come from too much rigidity.

The second big feature, the Brunswick Oval Tone Amplifier, is an all-wood tone chamber, seasoned and moulded by a special process. It is made light and resonant, like a violin. It allows sound waves to expand and amplify in a natural manner, because it obeys laws of acoustics not thoroughly considered by old-time methods.

These two improvements combine to make the Brunswick Method of Reproduction unique in the phonograph field. They bring new tone standards. Harshness and metallic noises are effectually banished. Tones are clear, sweet and penetrating. Syllables are distinct and the most delicate shadings of tone are faithfully reproduced.

The Brunswick is the last evolution of the phonograph, the instrument of today and tomorrow. Brunswick dealers are building a business upon unshakable foundations.

THE BRUNSWICK-BALKE-COLLENDER COMPANY General Offices: 623-633 South Wabash Ave., Chicago

Beanch Houses in Principal Cities of United States, Mexico and Canada Sales Co., 79 Wellington St., West, Toronto New England Distributors: Kraft, Bates and Spencer, 156 Boylston St., Boston, Mass.



The Oval Tone Amplifier, built entirely of wood

# The Brunswick Oval Tone Amplifier

# Its Function and Importance

No other phonograph has this Oval Tone Amplifier. It is one of the two features that make the Brunswick Method of Reproduction radically different, the other being the Ultona.

The Brunswick Tone Amplifier is built entirely of wood. It is made of three thicknesses of light, resonant wood.

While the opening is oval, inside it is slightly flattened at the top. A scientific study of the laws governing musical sound have led to this unique shape.

Brunswick tones are steadier, softer and smoother than those reproduced by any other method. Sound waves expand in a normal, natural manner, because the laws governing them are strictly observed in this construction.

There is no cast metal throat. Metallic harshness is banished.

This fact is observed by every one hearing The Brunswick for the first time.

#### THE BRUNSWICK-BALKE-COLLENDER COMPANY

General Offices: 623-633 South Wabash Avenue, Chicago

Branch Houses in Principal Cities of United States, Mexico and Canada

New England Distributors: Kraft, Bates & Spencer, Inc., 156 Boylston Street, Boston, Mass.

> Canadian Distributors: Musical Merchandise Sales Co., 79 Wellington St., West, Toronto



# The BRUNSWICK Method of Reproduction



# Tones Hitherto Rare

# Now Ever-Present

Method of Reproduction. Learn how we gained that wonderfully pure tone which has given The Brunswick Phonograph such prestige.

Experts in acoustics have long agreed that superior reproduction depends chiefly upon the reproducer and the way in which tone is amplified.

Until the coming of The Brunswick, many experts thought it impossible to overcome "spotty" reproduction, that is, alternate good and bad tones. Yet all were striving to increase the good tones and decrease the bad.

#### What We Found

The fault, we found, after hundreds of tests, was largely due to the use of metal in the amplifier or sound chamber. Metal, having no elasticity, prevented the sound waves from expanding properly. Strident noises resulted.

So we chose wood, developing the now famous Brunswick Amplifier, built entirely of wood. We tested dozens of different woods, arranging them in numerous shapes. Finally we attained the proper acoustic values. Brunswick tone is infinitely better, for tones considered rare a few years ago are ever-present in this super-instrument. No one can remain unappreciative of its fullness, richness and clarity. And all appreciate the banishment of metallic sounds. Once you hear The Brunswick, your own ear will confirm these statements.

### Plays All Records

Another great feature of The Brunswick Method of Reproduction is the Ultona, our all-record reproducer. At a turn of the hand it presents to each type of record the proper needle and diaphragm. Each make of rec-

ord can now be heard at its best, played exactly as it should be. Thus you are not limited in your selection of records to one make.

Before you buy, or even if you already have a phonograph, hear The Brunswick. Put it to any tone test you wish. Ask that the most difficult records be played. Make comparisons. Then let sheer merit decide.

#### The Brunswick-Balke-Collender Company

General Offices: CHICAGO and NEW YORK

Bronch Houses in Principal
Consolina Distributors
Consolina of United States.

Marcel Merchanista Sales Co.,

Brunswick

41





The finish on most pre-1925 Brunswick cabinets is either several coats of hand-polished shellac or with one or two coats of shellac followed by one or more coats of true varnish, now often termed heirloom varnish. Early varnish was made by boiling linseed oil with shellac. The resulting varnish is alcohol, oil, and water proof while shellac alone is not. The center for cabinet production in the United States was Michigan,

especially in and around Grand Rapids. Many phonograph companies had major cabinet factories in the area as it was close to hardwood forests. Grand Rapids held semi-annual furniture exhibits to display new designs. Several downtown buildings were used, including the Gilbert and Klingman Exhibition Buildings and the Furniture Temple. By the late 1910's the talking machine industry had taken over most of the exhibits; companies competed with elaborate machine displays and demonstrations. The Otto Heineman Company turned over the first floor of its Okeh Building to exhibits. In November, 1918, the metal allowance for the talking machine industry was increased from forty to seventy percent; this included iron, steel, aluminum, brass, and copper.

When new, many Brunswick phonographs came with a set of 10 and 12-inch record albums. Brunswick record albums have black covers with a rough textured surface. Two cover designs were used. One features the embossed imprint of the logo of the early Brunswick record label, while the other has the word "Brunswick" in large print with "Phonographs and Records"



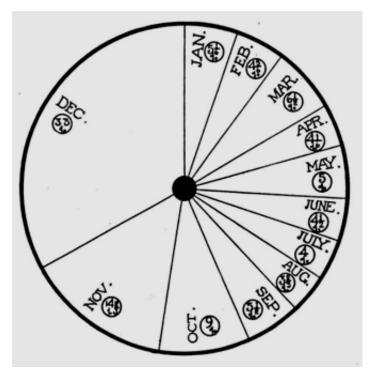
A. J. Kendrick

below. The album spines often have a large black letter set in a gold or silver circle. Inside, the record sleeves appear to be made of poor quality paper because today the pages are often disintegrating and tear easily. Brunswick also produced accessory items such as catalogues, steel needles, needle tins and envelopes, record dusters and pocket mirrors. These items usually contained the Brunswick logo along with company or local dealer names.

Brunswick adapted its nation-wide area jobbers to also distribute phonographs and records to local dealers. A. J. Kendrick, manager of the phonograph division, stated, "When we entered the field we had a ready-made jobbing organization in the form of a number of branch houses in different parts of the country. These had handled our line of billiard and bowling equipment for years and they simply

added our phonographs and records."(76) In contrast with most companies, which had locally financed distributors, the Brunswick Company financed their branch houses. Still, Brunswick claimed to maintain a close relationship with local dealers and to have a "factory protected franchise" with each.(100) One area jobber, Kraft-Bates and Sperrer, Inc. at 1265 Boylston Street in Boston, was the New England distributor. This firm placed its own half-page and full-page advertisements in the early 1920's issues of the *Talking Machine World*. The Brunswick Company also advertised monthly in the journal, usually full one or two-page advertisements which were often in color and on heavy glossy stock paper so that a dealer could remove the pages and possibly use them for display.

Harry B. Bibb, Sales Manager for the Brunswick-Balke-Collender Company, produced a chart for the June 15, 1919 *Talking Machine World*. Each of the twelve slices in the pie chart represents monthly percentages of sales in a year. The chart was prepared from data collected



from all parts of the U.S. and from merchants selling various makes of phonographs and talking machines. Nearly half of the annual sales of machines were made in November and December. Manufacturers and dealers knew well in advance to have abundant supplies ready for holiday sales. Because many homes had new machines in December, January was generally good for record sales.

On October 1, 1919, the Otto Heineman Phonograph Supply Company changed its name to the General Phonograph Corporation.

#### **Brunswick Records**

With the lapse of the agreement

with the Pathe Phonograph Company in 1919, Benjamin Bensinger decided to take the Brunswick Company still further into the phonograph industry. It did not please him to see other brands of records being played on Brunswick phonographs. Brunswick began to record and press regular lateral-cut shellac records. The September 15, 1919 issue of the *Talking Machine World* announced Brunswick's intention of recording the young violinist, Elias Breeskin. The November 15, 1919 issue stated that Percy L. Deutsch, grands on of John M. Brunswick, was appointed Artists Secretary and S. J. Turner Advertising Manager for the new Brunswick records. The January 15, 1920 issue officially announced Brunswick records to the trade. Walter Gustave Haenschen was made Manager of the Popular Records Department and Fred Hafleur director for the recording rooms. Henry P. Eames, former student of Clara Schumann and the great Paderewski, was Music Director. William A. Brophy was made the General Manager; he had been Musical Director the Victor Talking Machine Company from 1914 to 1916 and had worked for many years in the Edison recording laboratory. Two pressing plants



# ELIAS BREESKIN

LIAS BREESKIN, the well known violinist, as an exclusive Brunswick artist adds to the galaxy of musical stars contributing to the artistic success of the Brunswick Records.

Mr. Breeskin, whose violinistic gifts have been evidenced since early childhood, comes of an old Slavicfamily, all highly endowed intellectually and artistically. He approaches the work of recording his repertoire in an especially commendable manner; giving lavishly of his musicianly acquirements only that they may subserve the demands of the highest sentiment and of interpretative ideals.

were established, one on Long Island and one in upper New York. Other pressing plants were scheduled for Jersey City and Toronto. Temporary recording laboratories were at 19 East 21<sup>st</sup> Street in New York City.(114)

The All Star Trio and Gene Rodemich's Orchestra made their first Brunswick records in October, the Green Brothers Novelty Band in November, and Paul Biese and His Novelty Orchestra in December. Despite the escalating price of shellac (the fall 1919 Kushmi crop in India was very small), Brunswick records first appeared in stores in January, 1920. The label had a black background with the familiar early Brunswick design. A gold

ring borders the label. Two eccentric white circles merge at the top where there is scrollwork. Below a "B" in Gothic print is "Brunswick" in script letters. The elaborate and multi-color design made it an expensive label. 10-inch popular records (the 2000 series) sold for 75 cents and 12-inch records (20000 series) sold for \$1.25 The early celebrity records (5000 series) had similar labels with a violet background with popular artists in the series priced at 75 cents; others at \$1.00. Brunswick records were the first American records to feature a run-out groove to activate the semi-automatic brake. As did most record companies, by special arrangement Brunswick studios would record and press personal records.

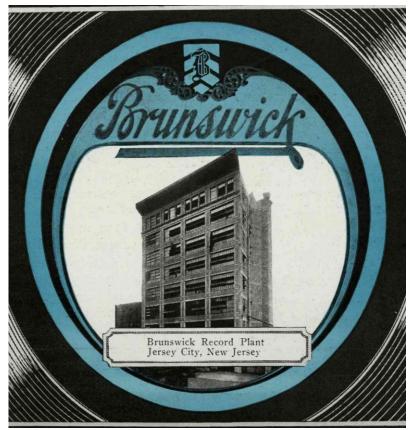
The formula used for making shellac records varied from firm to firm and from decade to decade. It was usually a company secret. The shellac component represented approximately thirty percent of the material used for the better quality records.(109) Essential components would include shellac, ground rock, carbon black, and cotton floc. Several ground rock types were commonly used in the shellac matrix including limestone, rottenstone, barytes, slate, quartz, or pumice.(22) China clay, kaolin, Fuller's earth, and talc are not hard minerals but were sometimes used as fillers. Carbon black (sometimes called lamp black) was used for black pigments. Carbon black is made by burning gas under low pressure with a low flame and not enough air admitted to produce complete combustion.(92) Shellac records were mostly black because the black hides the unequal shellac colors and it is easier to view the grooves. Reflected light from the record grooves can indicate sound quality. A fuzzy reflection may be due to rough walls which can cause more surface noises. Worn records develop grooves in shades of non-reflective gray. Recording studios were equipped with a special microscope for detailed examination of the record grooves under a strong light.(46) Finely desiccated cotton floc was used as a binder in the shellac matrix. The Claremont Waste Manufacturing Company of

Claremont, New Hampshire, continually advertised cotton floc for record manufacture. The company guaranteed uniform quality and offered free samples. Some manufacturers substituted asbestos, wood fiber, or animal fiber for the cotton floc. (39,105,252)

Abrasives such as iron oxide, carborundum, or corundum were usually added to the record matrix to help wear the tip of the needle to conform to the shape of the record grooves. Some organic compounds, such as naphthol, zein, or casein when included in the shellac matrix could make the records stronger and less brittle.(255) Waxes were often added to the shellac matrix to aid in the stamper release. The firm, hard wax from the Candelilla plant (*Euphorbia antisyphilitica*) was the preferred wax. The plant is native to the south-Western United States and Mexico. Ceresin wax, derived from ozocerite minerals, was also used as was Montan wax, a high melting wax derived from coal tars. Records made from pure shellac would make them very brittle and easily worn. Records made with too finely ground mineral fillers would also increase brittleness.(49) The mineral material—ground rock—needs to be of the right size to give strength and body to the record while maintaining the integrity of the pressed grooves.(33)

To mold shellac records, powdered shellac, ground stone, carbon black, and cotton floc were measured by a formula and mixed in a revolving drum or Banbury mixer.(33) The shellac needed to be finely ground for thorough mixing with and coverage of the other components. High quality orange shellac with low wax content and few impurities was the standard.(3,33) One report states the shellac was ground to 80 mesh, the fillers to 200 mesh, and the coloring matter to less than 0.4 micron in size. The mixture was steam heated, causing the shellac to melt and form a thick dough which was then passed onto heated rollers and formed into a long roll. The roll was cut into sections (called "biscuits" in some factories) with adequate material to form a 10 or 12-inch record.(13,44) The usual number of pressings from a negative matrix (stamper) was around 1,000, but at times as many as 7,000 could be made. Typically the first few pressings were discarded as the following pressings were of better quality.(44,45) Record labels were not glued in place, but were placed over center pins of the press just before the warm shellac mixture was formed into a record by the hydraulic press. The label was held permanently into place as the newly-formed record cooled and solidified.

Record pressing factories were messy and noisy places with dust everywhere. There were cutters, conveyers, drills, furnaces, grinding mills, lathes, pressure pumps, revolving drums, steam boilers, steam pipes, water pipes and hydraulic presses. There were bags or bins of the various components along with packages of unused record labels and a pile or two of rejected discs. Some factories used a magnetic separator to remove metallic particles from the tumbling dry ingredients. The making of a phonograph record was a complex process; any number of problems could occur from initial recording to pressing of the record. In early years there was no standardization of groove shape between different brands and even between recording sessions. While the groove for lateral-cut records was assumed to be "V" shaped, many were actually "U" shaped, a condition which could cause more surface noises.(212) The composition of the wax recording blank was usually a closely-guarded secret; typically carnauba wax was the main ingredient. Before being used for recording, the wax blank was shaved to a flat mirror finish with a special sapphire cutter.



The per unit pressure at the point of the needle is very high.(49) If the weight of a reproducer and tone arm weighing 0.25 lb is focused at the tip of a needle which occupies 1/3600 of a square inch, the pressure is equivalent to 900 lbs per square inch!(90) This is coupled with the dynamic action of the needle as it travels through the record grooves. The speed of a 78 rpm shellac record under the needle varies from 0.91 (inner grooves) to 2.73 (outer grooves) miles per hour with the average at 1.82.(90) Although having a reproducer with a compliant diaphragm mounted between two rings of soft gaskets can

be essential, needle wear is most often determined by the components and quality of the materials used to make the record. Since records were pressed by the thousands and were considered more or less disposable items, there was little concern by the average listener to avoid wear and damage to a record. Concert and opera records, however, were usually considered a family treasure and were protected and kept in albums or paper envelopes.

Although Brunswick provided and sold several types of steel phonograph needles, many different brands of steel needles were available; they came in an array of sizes and shapes. Depending on the brand, the hardness and quality of the steel was also variable; some were even nickel or gold plated. Most steel needles came in packets or small tins of one hundred or more needles. Loud volume steel needles are thick with an abrupt taper at the point while soft volume needles are thin with a more gradual taper at the point. Although not always available, the medium volume steel needle with a gradual taper from point to shank is probably the most uniform transmitter of vibrations of all sound frequencies.(21) Concerned with preserving their records, many serious collector/listeners today prefer to change the needle after playing only one or two record sides.

Brunswick did not use the conventional matrix/take numbering system for recordings but used a separate matrix number for each "take". Thus, one selection could have several matrix numbers. At each recording session usually two or three "takes" of each title were recorded even if only one "take" was selected for pressing records, although it was not unusual for more than one "take" to be issued. In addition to having the record number printed on the label, each record has the record number pressed into the shellac just outside the label although at times the

pressed number extends under and into the label. Most pressed record numbers can be found at the bottom of the record label between the 5 and 7 o'c lock positions, but many have the number in other positions around the label, including some with the numbers in different locations on the two sides of the same record. Until 1924 the record matrix number can also be found pressed into the shellac near the outer edge of the label. For example, discs of the Cotton Pickers' "Duck's Quack," recorded in New York on June 27, 1923, have the record number 2641-B pressed into the shellac in the 8 o'clock position with matrix number 10952 in the opposite 2 o'clock position. Recordings made in Los Angeles were sometimes given an "A" matrix number prefix; some made in Chicago were given a "CH" suffix. Some of the first jazz musicians to record for Brunswick were the Original Memphis Five (as the Cotton Pickers) and Fletcher Henderson.(13,30)

Carl Fenton and His Orchestra recorded several sides for Brunswick in October 1919. There was, however, no Carl Fenton. It was a pseudonym for a studio band led by conductor/arranger Walter "Gus" Haenschen. The Haenschen name may have been considered too difficult to spell and pronounce and could have hindered record sales. The early Brunswick records catalogues include a small photograph of the Carl Fenton Orchestra and the orchestra would occasionally play in public, usually to promote new Brunswick retail outlets. For these public sessions the orchestra was usually led by violinist Ruby Greenberg. It was Gus Haenschen who suggested Billy Jones and Ernest Hare form a team; later on radio they became famous as The Happiness Boys.(10) Most Brunswick records were recorded in New York; many in Chicago. When Herb Wiedoeft's Cinderella Roof Orchestra made their first Brunswick

records in August of 1923, they were recorded in Los Angeles.





Come dians Al Bernard & Ernest Hare

Compared to contemporary lateral shellac records, the Brunswick records were well-recorded, bright in the higher register, and have a good record surface. Some acoustic Brunswick dance records have a "phantom" bass; when played with an electric amplifier an occasional deep bass note will sound. Records by pianist Leopold Godowski were considered sensationally good at the time.(21) Brunswick discs were recorded at eighty revolutions per minute and Brunswick advertised that the Brunswick records contained a spiral groove at the end of the record to, "...ensure a perfect and automatic stopping of the record when the playing is completed. It is merely necessary in playing Brunswick records to set the Automatic Stop in the last spiral groove once and each record played will stop automatically."(7) In February, 1920, Brunswick and other record companies were surprised at the popularity and high record sales of the new hit song, "Dardanella;" it was written by Johnny (S.) Black.



In 1980 Professor Ron Dethlefson of Bakersfield, California, interviewed Mr. David Urner, who was once a Brunswick dealer in Bakersfield.(38) In the interview, Mr. Urner said that in 1920 he added Brunswick phonographs and records to his Urner and Janes appliance store. He held the exclusive rights to sell Brunswick products in his area. The phonographs and records sold well, despite Mr. Urner's admission that the early Brunswick phonographs did have their limitations because, "...the mechanical reproducer didn't have a very large range of tone." Still, Mr. Urner found the Brunswick phonographs to be a good business line during the 1920's. Many Brunswick machines were sold on terms, usually a twelve to eighteen months contract with ten percent down.



Mr. Urner recalled that Style 117 was one of his best-selling models; it was available in mahogany or oak cabinets, had gold plated exposed hardware, and the base price of \$250.00. The Brunswick Company brought out new records once a month. A representative from the company would come by with the new releases. One Brunswick announcement stated that new records were available at all Brunswick dealers on the 16th of each month in the East and in Denver and the West on the 20<sup>th</sup>.

In the author's collection is a Style 117 Brunswick phonograph; it is a tall upright floor model in a handsome golden oak cabinet. For this model the gold plated medallion is located near the front left (facing) corner of the motor board frame; it measures 1 7/8 inches in diameter. Stamped onto the medallion is, "The Brunswick" in large print and "All Phonographs In One" in small print. It also states the model, serial number, and five patent dates. Behind the grille the open end of the oval wood horn measures 15 ½ inches wide by 11 inches high. The exposed hardware is gold plated (except for the reproducer) and the 12-inch turntable has a green felt cover. The Type

"B" spring motor runs quietly, smoothly. On the cabinet in back of the crank escutcheon is a small gold knob for the "volume control" sound muffler. The lower record storage features five pull-out drawers for holding records vertically. Each drawer has a matching oak front measuring 3 1/8 inches wide and each drawer has a separate gold letter ("A" through "E") glued to the center of the drawer front. Beneath these drawers is one shelf to hold a 10 or 12-inch record album horizontally.



**Style 117 Brunswick Phonograph** 

The May 15, 1920 issue of the *Talking Machine World* stated that Brunswick had moved recording laboratories to 16-18 West 36<sup>th</sup> Street in New York City. It was a thirteen floor building; Brunswick occupied the top two floors. There was adequate space for offices, two recording rooms, and a separate machine shop.

During World War I material shortages and delivery delays frustrated local dealers and it was not unusual for a dealer to sell all machines in stock during the busy Holiday sales. Brunswick and other companies were unable to add new dealerships as they could not guarantee supplies. However, with the expiration of the basic phonograph patents held by Victor, Columbia, and Edison, a flood of companies entered the market producing internal horn acoustic phonographs. In the late 1910's and early 1920's nearly three hundred off-brand companies in the United States were selling machines and several produced and sold records as well; a few companies were able to enjoy nation-wide distribution but most were limited in production and distribution. Many claimed a special feature and placed advertisements in the *Talking Machine World*. Some companies made their own cabinets and merely purchased the hardware from one of the phonograph supply companies, such as the General Phonograph Corporation. It was not unusual for a music, piano, department, or furniture store to buy complete brand "X" phonographs from a manufacturer and merely place their own tag or decal on the machines they sold.

In February, 1920, Brunswick announced increased prices for several phonograph models: Style 7--\$115, Style 107--\$125, Style 110--\$150, Style 112--\$200, Style 120--\$285, Style 122--\$310, Style 127--\$325, Style 135 (mahogany)--\$400, and Style 135 (burled walnut)--\$425. Style 7 was due to be discontinued and replaced with Style 107. However, by June of 1920 signs of an oversold market and a general business slow-down in the United States were evident. On June 5, 1920, A. J. Kendrick of the Brunswick-Balke-Collender Company sent a message to Brunswick dealers, "It is quite reasonable to anticipate that some manufacturers will shortly find themselves seriously presented with a condition of overproduction, and unless he has fortified himself against such a period he and his dealers must inevitably suffer when that time comes." By 1921 overproduction and a general business depression marked the end of the phonograph boom and many of the new small phonograph and record companies were gradually forced out of business.

In September 1920 the Pathé Freres Phonograph Company began to press lateralcut shellac records under the "Actuelle" label.(32) Also by that same year, the Brunswick-Balke-Collender Company was selling both common and preferred stocks.(29)

#### The Year 1921

On March 8, 1921, the Victor Talking Machine Company of Camden, New Jersey, filed a Bill of Complaint against the Brunswick-Balke-Collender Company for infringement of the Eldridge R. Johnson Cut Record Patent, No. 896,059, dated August 11, 1908. The suit was brought in the United States District Court at Wilmington, Delaware, in which state the Brunswick Company was incorporated. Injunction was sought against the manufacture, sale, or use of the "so-called" Brunswick lateral-cut record which was in violation of the Johnson Patent. Victor also filed for an accounting of damages and profits for past infringements. At the same time Victor brought suit against the Starr Piano Company of Richmond, Indiana, for violations of the same patent. In an earlier case of Victor vs. Starr, Victor's patent was held invalid due to lack of invention and for abandonment. On April 4, 1922, the Circuit Court of Appeals (Second Circuit) affirmed the decision of the earlier trial. The Johnson patent was held invalid due to lack of original invention; the court declared that Johnson invented nothing new in the way of a matrix laterally-cut out of wax. He had, at most, produced better results through experimentation and use. Also, Johnson had kept his processes secret for several years; since Johnson did not attempt earlier to apply for a patent, the court declared this conduct a clear abandonment. Victor appealed to the U.S. Supreme Court, however in October, 1922 the Court denied the appeal. Brunswick and Starr continued to record and press lateral-cut shellac records.

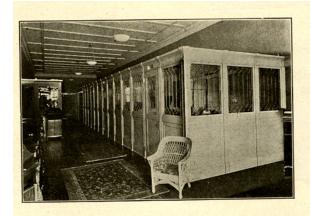
Despite depressed business conditions in early 1921, this was one of the best years for sales of phonograph records in the United States. Retail sales reached \$105.6 million. A single record cost approximately twenty cents to manufacture and it was estimated the sale of five thousand records effectively covered production costs. Sales



above that figure were mostly profit. The Columbia Graphophone Manufacturing Company was in financial difficulties due to stock speculations and overproduction of records and phonographs. It was almost involuntarily forced into bankruptcy and receivership by its stockowners and creditors.(125,232) Soon Brunswick was second only to Victor in production of phonographs and records.(4) Brunswick dealers

noticed that most phonograph records were sold to women; thus they directed sales and advertisements to appeal to women.

By 1921 new dealerships were continually added to Brunswick's list of U.S. retail outlets. In the trade this was referred to as "opening accounts." Furniture, music, piano, department and even drug stores sold the Brunswick line. New dealerships were often reported in the monthly issues of the *Talking Machine World*. Many new dealerships opened to sell only Brunswick phonographs and records, but it was not unusual for a retail firm selling a different brand of phonographs and records to add Brunswick products. In November, 1918 the famous West Coast music firm of the Wiley B. Allen Company added the Brunswick line; in May of 1919 the Gimbel Brothers department store in New York City did the same. The opening of a new dealership was often a major event with announcements in local newspapers. When the Brunswick Shop of Terrell, Texas, held a formal opening in December of 1920, a special program of records was presented, and the Louisiana Five performed for the crowds. At the opening of the Bungalow Shop in Lowell, Massachusetts, on July 23, 1921, Carl Fenton's Orchestra made a special appearance. When Hale Brothers in Cleveland, Ohio, became a Brunswick outlet in June of 1922, Isham Jones and His Orchestra presented a live program for the event.





# THE UNIT CONSTRUCTION COMPANY

Brunswick's active Dealers' Service Department made available to dealers colorful window displays, cut-outs, posters, and advertising cards. These were sent to dealers free. A booklet, "The Brunswick Dealer Service Portfolio," gave sales tips and described advertising methods. Brunswick advertised its products in many national newspapers and magazines; advertisements for use by dealers in local papers were provided with space left for the dealer's name and address. The Brunswick Company paid for dealer advertisements in Sunday newspapers with wide distribution. For dealers with large window areas Brunswick provided a special window display service to which dealers could subscribe. Elaborate cloth valences were made available. Brunswick even produced advertising films. The week of September 25, 1921, was celebrated in the Chicago area as the "Isham Jones Orchestra Week" and local Brunswick dealers were provided with special displays and show cards for the event.(117) Isham Jones and his band were engaged for the entire winter season at the College Inn in the Hotel Sherman in Chicago.

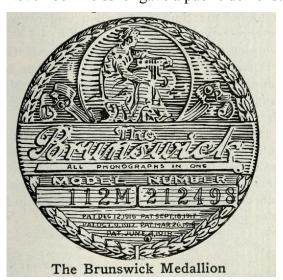
Most Brunswick dealers provided listening or demonstration booths where customers could audition records being considered for purchase. The booths usually had walls with clear glass panels. Many were "Unico" booths made by the Unit Construction Company which had main offices at 58<sup>th</sup> Street and Greys Avenue in Philadelphia. Another firm was the Ogden Sectional Cabinet Company of Lynchburg, Virginia. This company sold "easy-to-assemble" listening booth kits. They also sold record racks, sales counters, card files, etc.(136) Typically, listening booths were nearly sound-proof with double construction; the wood frames had white, ivory, or gray finish.

Brunswick produced a fifty page records catalogue in early 1921. One of the most famous Brunswick popular records was recorded by Isham Jones and His Orchestra in late summer of 1921, "Wabash Blues" (#5065). The record featured Louis Panico playing a muted cornet that imitated the sounds of a woman laughing. The record became even more famous when it was played by Jeanie Eagles on stage at every performance of the four-year run of "Rain" on Broadway and around Manhattan. The record sold nearly two million copies.



In 1921, Percy L. Deutsch, Assistant Secretary of the Brunswick Company, initiated research into electrical recording. Research was made in Chicago by inventor Benjamin Franklin Meissner, who was an expert in wireless torpedo guidance during World War I. The December 15, 1921 issue of the Talking Machine World reported that Meissner had, "...for some months been working in the Brunswick experimental laboratories here on various methods for converting sound waves into electrical waves, and

reconverting these back to sound waves on the talking machine record." Brunswick had been experimenting with wireless remote disc mastering in Chicago when on November  $22^{nd}$  the operatic performance of "La Boheme" from the Auditorium Theatre, four blocks away, was broadcast to a Magnavox receiver in the laboratory. There, "...the electrical waves were switched from the Magnavox directly to the recording apparatus." Meissner developed a balanced armature magnetic recording head powered by an electromagnet. His description of the unit included the advanced concept of damping by the use of oil damping and viscoelastic balancing of the moving devices. During 1921 Meissner made electrical recordings of several Brunswick artists, including pianist Leopold Godowsky, soprano Clair Dux, and the Isham Jones orchestra. Test pressings were made and in mid-November Meissner gave a public demonstration of his electrically recorded records for



an invited group of seventeen Chicago music critics, musicians, and news and trade representatives, but no issued recordings resulted from these experiments and Brunswick abandoned independent research into the electrical recording process. Brunswick never received patents on Meissner's work; he left Brunswick in mid-1922.(121) Years later Meissner reflected that many of his ideas had been incorporated into the patents granted to others.

In June of 1921 Brunswick introduced the Brunswick Medallion—to identify the phonograph as a genuine Brunswick product.(115) The medallions varied in content; most measured two inches in diameter and were usually installed on the phonograph cabinet near the turntable. For the larger models with gold plated exposed hardware the medallion was also gold plated.

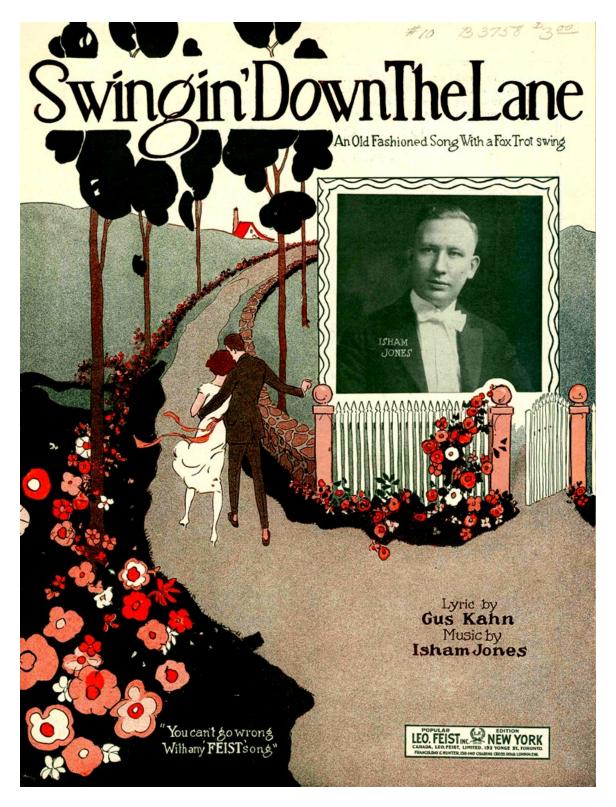
In the July 15th *Talking Machine World* Brunswick announced it had, "...opened an experimental laboratory and recording room on the sixth floor of its Chicago headquarters. The object of this laboratory is to record the work of Isham Jones and other Western talent. This is the first time that a permanent laboratory of this kind has been established in Chicago." The Isham Jones Orchestra was a Chicago institution and important to Brunswick, recording exclusively and frequently for Brunswick. The name on early discs, "Isham Jones Rainbo Orchestra," reflected the band's engagement at Chicago's famous dance palace, the Rainbo Gardens, at the intersection of North Clark Street and Lawrence Avenue. Aided by his pianist, Roy Bargy, Jones wrote complex and



advanced musical arrangements for his band. Isham Jones was also a noted composer; many of his songs were very popular and became standards, including "Broken Hearted Melody," "I'll See You In My Dreams," "Indiana Moon," "Gotta Getta Girl," "Swingin' Down the Lane," "On The Alamo," "Spain," and "It Had To Be You." The Isham Jones record of "Ma" and "Wabash Blues" (#5065) was very popular and had high sales. (119)

In November of 1921 Brunswick initiated a phonograph house organ, "The Brunswick Dispatch," to keep dealers informed of company developments and to give marketing suggestions. The first issue

contained twenty pages.(118) On November 25<sup>th</sup> President Harding signed the Revenue Act of 1921 which included a measure to exempt entirely excise taxes on talking machines, records, pianos, and musical instruments. The five percent excise taxes had been imposed during World War I.(124)



For the Holiday sales season, Brunswick placed a double-page advertisement in the December 3<sup>rd</sup> *Saturday Evening Post*. Sixteen Brunswick phonograph models were presented as small drawings, including the table model (Style 105), seven upright floor models and eight console floor models. All were Ultona models; prices ranged from \$65.00 to \$775.00. With the addition of many new Brunswick dealers around the nation and with high sales of phonographs and records, Brunswick was again hard pressed to fill

all orders for new Brunswick phonographs in time for the Holiday sales even with the cabinet factories working overtime.(122) Brunswick's mid-price models and the new console models were especially popular with the public.(123) Since summer Brunswick advertisements in the *Saturday Evening Post* included listings of newly-released Brunswick records—in all categories—along with illustrations of the Ultona tone arm and reproducer and the molded wood internal horn.(85,86) Until July of 1925 Brunswick usually advertised phonographs and records once a month in one of the *Saturday Evening Post* issues. Most were double-page advertisements. Brunswick adopted the slogan, "The Sign of Musical Prestige."

In November the Hardman, Peck and Company at 433 Fifth Avenue in New York City ("Hardman House") added the Brunswick line to its retail sales.(120) It was not unusual for a Brunswick dealer to donate a Brunswick phonograph to a hospital, veteran's organizations, the Red Cross, etc. Dealers also loaned machines for model home exhibits. During 1921, the American branch of the Pathé Freres Phonograph Company was in financial difficulties and was bankrupt, although the company continued to record and press records. In December the company was placed in the hands of receivers.

#### The Year 1922

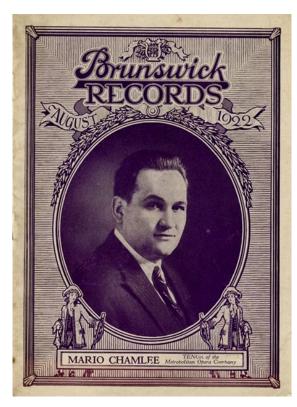
In 1921 Brunswick was manufacturing more than two thousand automobile tires a day at its Muskegon plant, but in 1922 the price of crude rubber advanced to \$1.01 per pound from the average 1921 price of 21 cents per pound. As the popularity of low pressure balloon tires for U.S. automobiles proliferated, the demand for rubber greatly increased.(225) Benjamin Bensinger also found the tire market to be intensely competitive. He was making plans to discontinue production of Brunswick tires and tubes when the B.F. Goodrich Company made a surprise offer to manufacture a tire using the Brunswick name. This was an indication of Brunswick's good reputation in the market place. Bensinger accepted the offer and took Brunswick out of the rubber business. In September of 1923 the Brunswick Tire Company was officially sold to the B.F. Goodrich Company.(29) Brunswick remodeled the large rubber factory in Muskegon, Michigan, to be a much-needed expansion of the phonograph cabinet factory.

By the end of January, 1922, Brunswick published a records catalogue of 96 pages. Readers were reminded that the correct speed for Brunswick records was eighty revolutions per minute. The Carl Fenton Orchestra had nearly forty sides listed. Popular artists included the All Star Trio, Al Bernard, Zez Confrey, the Green Brothers Novelty Band, Ernest Hare, Charles Hart, Billy Jones, the Isham Jones Orchestra, Bennie Krueger's Orchestra, Gene Rodemich's Orchestra, Vessella's Italian Band, and Wiedoeft's Californians. Gene Rodemich was from St. Louis where local fans called him "the ragtime Paderewski" because he was a classically trained pianist who had an inherent ability with ragtime. As a youth he was among the first to take up the new ragtime syncopation.(34,96) Rodemich displayed his virtuosity with a solo piano section in his early Brunswick record, "Tenth Interval Rag" (#2599-A). Bookings and travel

activities by Brunswick's artists were frequently reported in *Musical Americana* and *Variety*, the entertainment industry newspapers published weekly in New York City.

Following the Victor and Columbia tradition, Brunswick signed and recorded several famous concert and operatic artists to complete its records catalogue and to enhance Brunswick's reputation. Unable to secure artists with the fame and reputation of Victor's Red Seal roster, Brunswick nonetheless signed a distinguished group for its Exclusive Artists. Brunswick's 1922 records catalogue urges the listening public to, "...graciously receive and welcome each artist introduced in the following pages." Exclusive Brunswick artists included baritone Richard Bonelli, tenor Mario Chamlee, baritone Guiseppe Danise, soprano Clare Dux, soprano Florence Easton, pianist Leopold Godowsky, violinist Bronislaw Huberman, soprano Dorothy Jardon, tenor Theo Karle, contralto Elizabeth Lennox, pianist Elly Ney, tenor Tino Pattiera, mezzo-soprano Irene Pavloska, soprano Virginia Rea, violinist Max Rosen, conductor/composer Richard Strauss, soprano Marie Tiffany, soprano Irene Williams, and cellist Willem Willeke.





The Elschuco Trio was composed of violinist Elias Breeskin, cellist Willem Willeke, and pianist Aurelio Giorni. Founded by Willem Willeke, the trio presented many live concerts; they were noted for their performances of the trio works by Johannes Brahms.

Brunswick's recording engineers found Mario Chamlee to have an ideal recording voice as it had a pleasant, unstrained vocal quality. Florence Easton was a versatile soprano; she sang both the Italian and German repertoire. Elizabeth Lennox was sometimes called the "typical American girl" since she was from the mid-West and

the daughter of a minister. Bronislaw Huberman was internationally famous as a violinist and was a favorite of European nobility. In Italy for a music festival the city of Genoa permitted Huberman to play the famous Guarnerius del Gesu, a violin two hundred years old, which once belonged to the great Paganini. The violin was kept under glass in the Tursi Palace. This privilege had been extended only to a very few living violinists. Elly Ney was married to Willem van Hoogstraten, co-conductor of the New York Philharmonic Orchestra; she was also the grandniece of Michel Ney, one of the Marshals in Napoleon's army. Born of German parents, Claire Dux was from Poland. After a career on the operatic stages in Europe, in 1921 Claire Dux settled in the Chicago area and in 1926 married Charles Swift, head of Swift meat packing. From that point she sang only in occasional concerts. Max Rosen (Maxie Rosenzweig) had a friend in New York City named George Gershwin; they went to the same grammar school—Public School 25 at Fifth Avenue and Second Street. When he was only ten years old Gershwin was captivated by the sound and music from Rosen playing his violin. Rosen and Gershwin became close friends; Gershwin taught Rosen wrestling and it has been reported the boys even played hooky together. In a double-page advertisement in the March 18<sup>th</sup> issue of the Saturday Evening Post, the ten Brunswick Exclusive Artists (now called the New Hall of Fame) were introduced to the public; a small photograph of each artist was included.



Early classical records were single-sided and featured the usual Brunswick logo with a green or blue background--ten-inch 10000 series for \$1.00 each and twelve-inch 30000 series for \$1.50 each. Then in the *Talking Machine World* issue for April, Brunswick announced, "Double-faced operatic records, to be known as Gold Label records," adding that, "Artists whose recordings are now listed under the Green Label series will make the new records, the first releases of which appear in the lists for April and May. These new records will retail from \$1.50 to \$2.00, comparing with prices from \$1.00 to \$1.50 for the single-faces disc." Records in the ten-inch 13000 series, mostly blue labeled, sold for \$1.25.





Leopold Godowsky, Master Pianist

Exclusive Brunswick Artist





Elly Ney











#### FROM OUR CHICAGO HEADQUAR'

ing Machine Co., of New York, and T. W. Barnhill, president of the Penn Phonograph Co., of Philadelphia, were all in Chicago this week on their way home from the Pacific Coast, where they have been journeying since the talking machine jobbers' convention at Denver.

#### Announces Three New Brunswick Models

The Brunswick-Balke-Collender Co. announces this month three new Brunswick models. The company states that these models embody

Model No. 200 comes in finishes of Adam brown or red mahogany and fumed or golden oak. The cabinet in itself is forty-three and a half inches high, nineteen inches in width and twenty-one inches in depth, and the trimmings are all nickel-plated.

Model No. 207, as well as No. 210, may also be had in the same finishes as mentioned above. The dimensions of No. 207 are forty-five and a half inches high, nineteen inches in width and twenty-one inches in depth, while Model No. 210

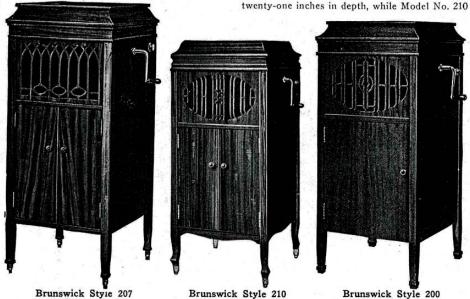
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Brunswick Style 207 Brunswic greater values, which are made possible by the lower cost of labor and materials. All of these models are equipped with the Ultona oval amplifier and other exclusive Brunswick features. The models are known as Numbers 200, 207 and 210. The retail prices of these new models are in keeping with those popular with the trade of to-day.

Style 210 Brunswick Style 200 comes forty-seven inches high, twenty inches in width and twenty-one inches in depth.

Further equipment than heretofore mentioned as contained in the new models consists of Brunswick double-spring motors, with twelve-inch turntables, automatically balanced lid, automatic stop, tone amplifier and seven albums for filing records.

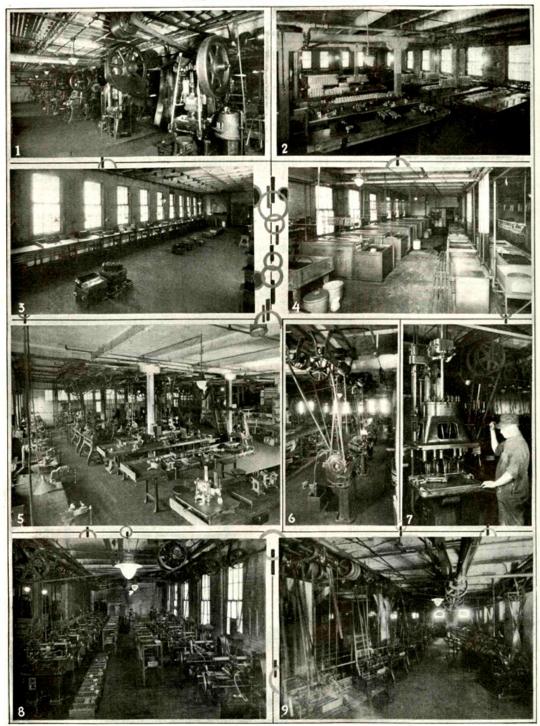
#### **Brunswick's Chicago Motor Plant**

(see photos on page 66)

- 1. Punch press room
- 2. Assembling room
- 3. Inspection Department of all small parts
- 4. Plating Department
- 5. Section of tool room
- 6. Section of Grinding Department
- 7. Special automatic drilling machine
- 8. Gear hobbers and thread millers
- 9. Automatic screw machines—single spindle and multiple spindle

## BRUNSWICK CHICAGO MOTOR PLANT A MARVEL OF EFFICIENCY

Brunswick Motors Produced Under Ideal Conditions—Plant Noteworthy for Its Completeness—Some Recent Photographs



-Puseh Press Department. 2-Assembling Room. 3-Inspection Department of All Small Parts. 4-Plating Department. 3-Section of Tool Room. 6-Section of Grinding Department-Craterion

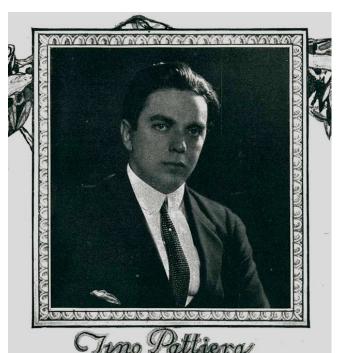
By 1922 the Brunswick Company was manufacturing spring motors to power the turntables of the Brunswick phonographs. Various sizes and models of spring motors were produced. The March 15<sup>th</sup> issue of the *Talking Machine World* presents a full page of photographs of the Brunswick Chicago motor plant. It was claimed to be a "marvel of efficiency" with motors produced under ideal conditions.

In May San Francisco's famous Emporium department store announced it was adding Brunswick phonographs and records to its complete line of Victor products. By June Alfred Graham and Company in England was selling Brunswick records and phonographs.(43) Also in May, Frank X. Hofbauer, assignor to the Brunswick-Balke-Collender Company, applied to the U.S. Patent Office for a "Sound Record Recording Device" for an invention that, "...relates to improvements in devices or apparatus for making sound records..." The patent was granted August 31, 1926, patent # 1,597,976. In August the new de luxe case "Chippendale" console model was introduced. With a burl walnut cabinet elevated on Queen Anne legs it sold for \$450.00 and came with an



electric turntable motor.(128) Despite the high price the model had good sales. On August 26<sup>th</sup> the Brunswick Lumber Company was incorporated in Michigan as the Lake Independence Lumber Company. Each year during the traditional August vacation time, Brunswick closed recording laboratories for two weeks.

In September a full-page advertisement in the *Talking Machine World* announced that Marion Harris, "Reigning Queen of Popular Songdom and World-Wide Vaudeville Favorite" was an exclusive Brunswick artist. Miss Harris had been successful as a Columbia artist in the



T IS WITH DISTINCT pleasure that the Brunswick Company introduces to its patrons—Tino Pattiera, the distinguished operatic and concert tenor, who since his sensationally successful debut in the Dresden Opera in 1916 has won triumph upon triumph in the continental art centers. That this gifted singer who is also a great actor, is now an exclusive Brunswick artist means added laurels for Brunswick Records and greater opportunity for those, records to spread the gospel of the beautiful in music. Mr. Pattiera has the happiest of combined endowments—youth—he is but thirty years of age—an ideal presence, the broadening education of college and the law school,—one of the most beautiful natural tenor voices of his time, the histrionic gifts of the great actor and finally, musicianship and repertoire. Pattiera now is singing the romantic tenor roles in the Chicago Grand Opera and repeating his European successes. Pattiera's voice like his appearance is lithe and flexible—he possesses the art of bel canto so constantly sought and so seldom found by vocalists, his fiery, impetuous delivery remind audiences of Caruso, but with it all he is "Pattiera" through it all. Upon Brunswick Records he will stamp his art and individuality and the public will welcome his genius and his message.

early 1920's but that company's financial difficulties induced her to sign with the prospering Brunswick label. Brunswick's delight at signing Marion Harris to an exclusive contract is reflected in the caption beside her small photograph in the catalogue, "A supreme artist in her own particular field is Marion Harris, vaudeville's darling, known from coast to coast as 'the Queen of Blues Singers'" Also in September Brunswick introduced the York console model; priced at \$150.00 it became one of Brunswick's best-selling console models.(129) In October Brunswick purchased a





new warehouse at the corner of Pershing Avenue (39<sup>th</sup> Street) and Federal Street in Chicago to serve as a distributing warehouse for Brunswick phonographs, records, and other products. With floor space of 90,000 square feet, the building had been built during World War I by the U.S. Government for use as a medical warehouse.



In November the *Talking Machine* World issue contains a black and white photograph of Brunswick's huge new outdoor sign advertising the Brunswick New Hall of Fame records. The sign was located at the northeast corner of Fifth Avenue and Forty-Second Street in New York City, a short distance from the Grand Central Station and opposite the New York Public Library. It was estimated 750,000 people could view the sign daily. Also, by November the Pathé Company severed connections with the parent French company and reorganized as the Pathé Phonograph and Radio Corporation. In December, without notification to the public, Pathé released the last of their vertical-cut records. Their lateral-cut record was called the "New Pathé Record" and the term "Actuelle" was dropped from company

literature although the word continued to be printed in small print on the record labels. In France Pathé continued to release vertical-cut records until as late as 1932-1933.(32)

In December Brunswick made available to dealers a colored picture envelope to send to the homes of record buyers; inside was the monthly listing of new releases, with photographs of Brunswick artists and phonograph models.



#### The Year 1923

By 1923 the Brunswick records catalogue had grown to 121 pages. The Brox Sisters and Margaret Young had been added to the list of popular artists. The Castlewood Marimba Band, Arnold Johnson and His Orchestra, the Oriole Terrace Orchestra, and Joseph C. Smith and His Orchestra were new additions. The Brunswick Military Band recorded march tunes. The violet colored labels used for exclusive artist records were discontinued; all popular records now had the black background label. Baritone John Barclay, Violinist Frederick



Fradkin, pianist Josef Hofmann, sopranos Maria Ivogun and Nina Koshetz, and contralto Sigrid Onegin, were added to the list of "Hall of Fame" artists.(7) Brunswick produced a "Hall of Fame" records series with 10-inch records selling for \$1.00 and 12-inch for \$1.50.

Pianist Josef Hofmann had small hands and avoided pianos with a standard keyboard. He had a special grand piano built with narrow keys and would have the piano shipped from one concert hall to another. The piano was expertly constructed and few people realized it was different. Mr. Hoffman was

> also a part-time inventor. His Hofmann air spring, which acts as an efficient shock absorber, was used on automobiles, airplanes, and other mechanical devices.(51)

The 1923 Brunswick records catalogue lists a set of five records made by golfing sensation Chuck (Chick) Evans, Jr.—the first golf lessons on phonograph records. "Chick" describes the principal points of golfing on five 10-inch records which came in a box containing charts showing thirty-four poses of "Chick" in action. Evans stated that all proceeds from the sale of the set would be donated to American golf caddies.(7) Brunswick's plan was to sponsor an annual championship golf tournament for caddies, with

Explanatory Charts

to be used with

"Chick' Evans'
Golf Records

IMPORTANT:

When hearing my records stand these charts before you. They explain by illustration the principal points I bring out in the records.

Chick Evans'
Golf Records

scholarships for prizes. The tournament was under the auspices of the Western Golf Association; it was called the Chick Evans National Caddy Championship.(126)



In January the *Talking* Machine World announced that Brunswick had signed the Capitol Grand Orchestra, led by Erno Rapee. Consisting of seventy-five members, the New York orchestra was considered the largest theater orchestra of its time. Twice daily the orchestra provided background music for the silent pictures played at the Capitol Theatre, then the largest and finest movie theatre in the world. Mr. Rapee even wrote original scores and musical themes for some movies. The

orchestra's first Brunswick disc, issued in January, featured, Jacques Offenbach's "Orpheus in Hades Overture," Parts 1 and 2 (#20008).(50)

Also in January Brunswick introduced its first "suitcase" portable, Style 101. The model was available with natural finish leather for \$50.00 or with black leatherette for \$45.00. It had space for 20 records in the lid. The 10-inch turntable could also play 12-inch records. The corner supports for the portable were held in place with solid rivets.(130) In February Brunswick announced that it would release new records daily instead of monthly, a move desired by Brunswick dealers due to the rapid spread and popularity of new dance hits.(131)

In March, the new Brunswick Building in New York City was ready for occupancy. Located at 789 to 799 Seventh Avenue at the south-east corner of 52<sup>nd</sup> Street, the Gothic structure was seven stories high and cost \$1,500.000. With 12,500 square feet there was adequate space for all the Brunswick enterprises.(132) Also in March Charles A. Hoxie of the General Electric Company demonstrated his Pallophotophone, which



records sounds by photography, at the American Institute of Electrical Engineers meeting in the Engineering Society Building at 29 West 39<sup>th</sup> Street in New York City.(133) Similar to the way the motion picture camera records images with light, the Pallophotophone "films" sound vibrations. A strong beam of light is reflected onto a tiny crystal mirror. The mirror is attached to a delicately adjusted diaphragm. Sound waves reaching the diaphragm cause it to vibrate and in turn the mirror moves or oscillates and the reflected beam of light moves with it. The moving ray of light falls

upon a strip of photographic film which passes in front of it in continuous motion. When developed the film shows a succession of delicate dark markings on a clear background. These markings represent the oscillations of the reflected beam of light. This beam of light gives the apparatus its name for "pallo photo" are Greek words meaning "shaking light." The film is wound on a reel and passed in front of an extremely sensitive photoelectric cell. The movement of the film before the cell creates electrical currents



corresponding with the original sound waves, as represented by markings on the film. The electric current is passed through a radio amplifier with vacuum tubes. It is a complicated method; the basic United States patent was #1,598,377.

Also in March, A. J. Kendrick announced reduced prices for several Brunswick phonograph models: Style 117--\$225, Style 122--\$275, Style 127--\$275, Style 135--\$325, Style 135 (walnut)--\$350, Style 217--\$250, Stratford console--\$300, and the Cambridge console for



\$350. For an extra \$35.00, these models were also available with an electric turntable motor. In April, (Sir) Compton Mackenzie, noted English author and novelist, started *The* Gramophone, a monthly journal which featured reviews of new operatic and classical records issued each month along with a series of noted essays by the editor. The journal is still in publication.(23) Also in April, Percy L. Deutsch, Assistant Secretary, was promoted to Secretary and General Manager of the Brunswick-Balke-Collender Company.(135)

On May 14<sup>th</sup> silent picture star Rudolph Valentino recorded two songs for Brunswick— "Kashmiri Song" (Pale Hands I loved), and "El Relicario (In Spanish). These were the only records made by Valentino, however his voice was not of high quality and the record was pressed only as dubbings for a special memorial record and issued without make or number in 1930. In May a new console phonograph model, "The Royal," selling for \$115.00, was introduced. It was available in American walnut or in mahogany with Adam brown or red finish.(134) Upon request a local Brunswick dealer could order from the factory

a phonograph cabinet enameled in white or other colors. The July 15th Talking Machine World issue reported that the Brunswick offices in Cleveland, Ohio, had been moved to larger quarters at 624-634 St. Clair Avenue.(127)



B. E. Bensinger

In June Benjamin Bensinger was invited to be one of the guests on the trial trip of the United States Shipping Board's luxury liner, the Leviathan. Originally launched in 1913 as the Hamburg-American Line's "Vaterland", the ship was seized by the U.S. Shipping Board in April of 1917. It was used as a troop carrier during World War I and in 1922 was completely renovated for the Atlantic trade. Often called the "Queen of the Sea", the Leviathan was one of the largest liners in the Atlantic service. The Brunswick Company built five special Oxford model phonographs with walnut cabinets to be used on the Leviathan including in the ballroom and



the music room. Brunswick also provided a large number of Brunswick records.(137) As an American ship, the Leviathan's elegant bars could only serve soft drinks and "near beer" during Prohibition.

In August W. Sinkler Darby led a recording expedition to Los Angeles where plans were being made to open a Brunswick recording laboratory and record pressing plant. Brunswick added Abe Lyman and His California Ambassador Hotel Orchestra to the list of Brunswick artists. Lyman's recordings of "No, No Nora" and "Cut Yourself A Piece of Cake" (#2476) became instant hits.(139) In San Francisco Brunswick added Paul Ash and His Granada Orchestra to the Brunswick's roster.(139) Ash's recordings of "Japanese Sunset" and "Rosita" (#2517) were also very popular.(140) W. Sinkler Darby had been a recording engineer for the Berliner Gramophone Company in 1898. In the

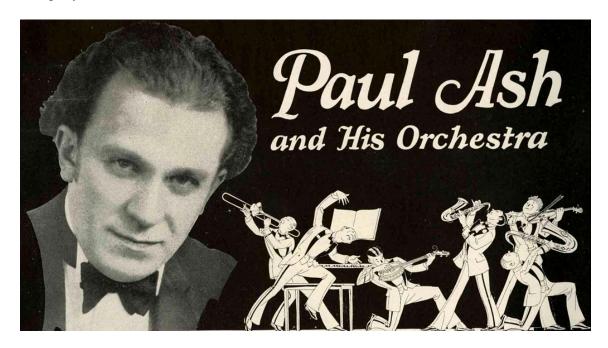
earliest days of disc recording he accompanied Fred Gaisberg on many historic recording expeditions throughout Europe. For several years he worked for the Gramophone Company in England.

In August Brunswick sent to its retailers around the nation a new model phonograph, Style 1177; this model was painted with seven heavy coats of white or ivory



enamel and was a demonstration model only. It was not sold to the public.(138) In November the Chappell Piano Company, Ltd., of 50 Old Bond Street, London, became "Sole Sales Concessionaires" for Brunswick in the United Kingdom. Chappell did not sell Brunswick phonographs, but marketed Cliftophones, made by Cliftophone, Ltd. Nor did Chappell sell American Brunswick records. Instead, using Brunswick record masters, Chappell pressed records with Brunswick Clifotophone labels. Most of the records contained American issue

numbers.(30) Brunswick-Australia, Ltd. was established to sell Brunswick products in Australia and New Zealand; it was managed by the publishing firm, D. Davis and Company, Ltd.



In 1923 Brunswick opened a record pressing plant in Muskegon, Michigan, and began to issue a twelve-page monthly record supplement to dealers. Brunswick opened production plants in Knoxville, Rockford, Toronto, and in Paris, France (as the Compagnie Brunswick Francaise). A subsidiary company was established in Havana, Cuba. Branch agencies were located in most major cities of the United States, Mexico City, Toronto, Winnipeg, Montreal, Edmonton, and in Buenos Aires, Argentina.(29)



# **Radio Competition**

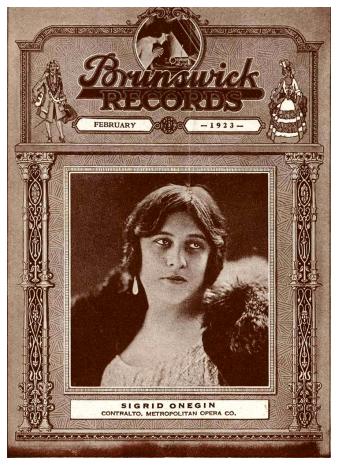
By 1923 radio was fast gaining acceptance among the American public and there was concern in the phonograph and records industry regarding future competition. Already there was evidence that the sales of phonographs were down and the accepted explanation was that money that might have been spent for a phonograph was being diverted to purchase a radio receiver. More than 500 transmitters were crowding the airways and new broadcasting



stations were appearing everywhere. Anyone with knowledge of electronics who could connect tubes and coils into a five-Watt transmitter and set out a broadcasting antenna, could be heard for at least some distance. To be legally airborne it was only necessary to have a license from the U.S. Bureau of Navigation. Newspapers, stores, factories, colleges, churches, and any individual could own a station. In many cases they were legally on the air only a few hours a day or week. Little space was required for the broadcasting equipment. A small room, closet, garage, attic, or even a basement could be used. Much of the extra airtime was filled by playing records. It is ironic that one of the essential items for a broadcasting station was a near-by phonograph or Victrola.

By July the effects of radio were felt in many areas.(233) The sales of radios continued to expand rapidly as the sales of records, sheet music, and even musical instruments declined. Theatre producers claimed radio was causing poor attendance at live performances.(240) Radio was being blamed for nearly every ill in the community. Record companies began to recognize the power that radio was now exerting on the sales of records. Whenever a radio artist played or sang a song that was no longer in demand on records, the record sales once again surged upwards.(28)

While the Victor Talking Machine Company did not permit Victor's artists to perform for radio, Brunswick was less restrictive and in special situations Brunswick artists were permitted to broadcast. A. J. Kendrick, General Sales Manager of Brunswick's phonograph division, stated, "We have felt radio requires some further development and improvement before a worthy transmission of an artist would be an entirely dependable procedure." Brunswick was also of the opinion that when radio was able to advance good music it would assist rather than retard the phonograph business.



Before a Brunswick artist could broadcast, the company would first investigate the program and the quality of the transmitter.(214)

On May 10, 1923, the 27<sup>th</sup> anniversary celebration of the Volunteers of America was held at the Metropolitan Opera House in New York City. The program was broadcast by stations WJZ and WEAF. During the program contralto Louise Homer, exclusive Victor artist, and tenor Mario Chamlee, Brunswick artist, both sang for the charity event. Since they were not paid for their songs and the broadcasting was incidental, neither was considered to have violated their contract.(214)

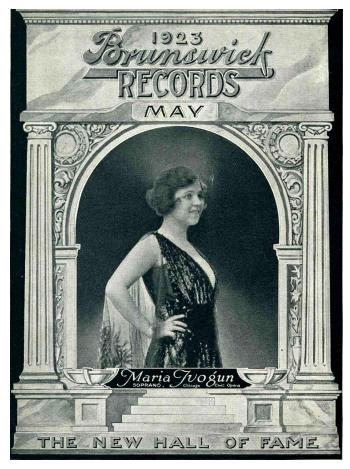
The most popular tune of 1923 was the novelty tune, "Yes, We Have No Bananas" by Frank Silver and Irving Cohn. It was recorded by many

groups and on many different labels; sheet music sales of the tune broke all previous sales records.(215) At the end of 1923 the composers were able to split a \$60,000 royalty.(98) The 1923 Holiday sales season was very profitable for Brunswick; retailers were swamped with customers, The console models were especially popular. It was not unusual for a Brunswick dealer to sell nearly all of its machines and records.

#### **Victor Versus Brunswick**

The Brunswick-Balke-Collender Company had been selling phonographs on the open market since 1916. However, the Victor Talking Machine Company waited until the early 1920's to bring suit against Brunswick for infringement of the basic Eldridge R. Johnson patents. Victor also brought suit against the General Phonograph Corporation, which made the Ultona tone arms used on the Brunswick phonographs. The result of these trials was for dismissal of the suits, but Victor appealed the decisions and in 1922 brought suit against both Brunswick and General Phonograph in the Sixth Circuit Court of Appeals. The case was heard on February 6, 1923.(18)

The two 1906 Eldridge R. Johnson patents Victor claimed to be in violation were the "...basic structure and means of attachment of the horn," patent No. 814,786, and the "...amplifying horn comprising a continuously tapering tube," patent No. 814,848. After careful and due consideration the Court declared that, as was the case for the results of



Victor versus the Cheney Talking Machine Company (15,16), the Victor patents were still held valid but not infringed by the design of the Ultona tone arm and the Brunswick phonograph horn connections.(213) Applying the "strict rules of proof" required in such cases the Court was not convinced by Victor's presentation.

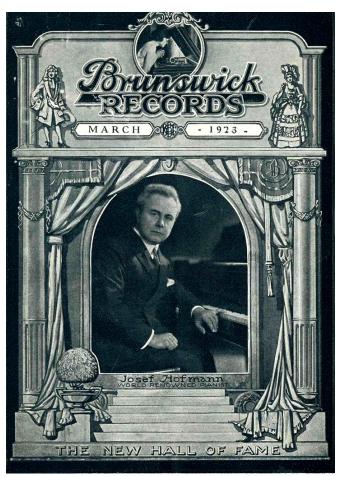
The Ultona tone arm has two sections. The smaller piece which attaches to the reproducer has a slight taper for the first one-third of the distance but the rest is a straight tube so that it can telescope in or out of the second back section as required by the type of record being played. The back section is tapered and the larger open end has a 90-degree turn that extends through a large metal ring which supports the

weight of the tone arm and permits horizontal movement. This support ring is attached to the cabinet by three strong wood screws. Below the open end of the tone arm the sound waves enter a straight wood tube before passing into the small end of the horn opening. Not strictly a "continuously tapered" design from the reproducer connection to the open end of the horn. About three-quarters of the distance is cylindrical and one-quarter is tapered. Nor is the horn supported by the connective structure at the open end of the tone arm. Instead, it is supported by the cabinet in various places. Whatever support was given to the horn at the communicating port of the horn and tube was declared by the court to be, "only incidental, and a bracing against vibration rather than a carrying of the weight burden."(18)

Furthermore, the Court declared that in the original Johnson patent the shape of the tone arm was not then noticed by anyone as a feature of any importance and the interest and attention were centered upon another feature of the machine, although the Court admitted that, "...the questions involved are not free from difficulty." The Court expressed doubts that Johnson's structure may have involved any real invention. Concerning the original Johnson patent (253), officially witnessed by H. J. Hartman and E. W. Vaill, Jr., on February 9, 1904, the court record states, "...if the exhibit shown to those witnesses and identified by them...had contained a straight tone arm instead of a tapered one, they would have identified it just as completely and in just the same good faith."(18)

The Court considered Johnson's thought and inspiration was in developing a mechanism which removed the weight of the horn from traveling the record grooves and retarding needle action. The mechanism he developed was an articulating tone arm which would maintain the sound reproducing qualities and support the weight of the horn by a separate means. The court even declared that Johnson's contribution to the art was not a great one and did not give him a monopoly of the whole industry to which his theories would lead and his claim should be strictly considered and limited.

### Victor Versus Brunswick and John Bailey Browning

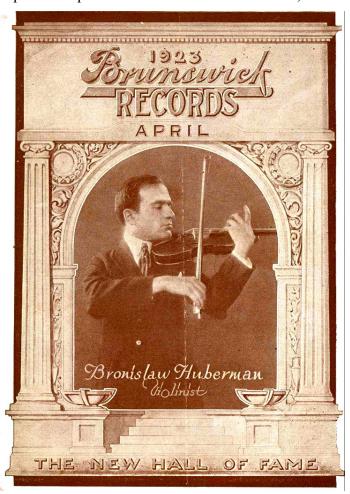


Although it did not prevent Brunswick or Victor from installing doors in front of the internal horns of their respective phonographs and Victrolas, both companies for a time held conflicting patents regarding these "volume control" doors. On January 12, 1906, Eldridge R. Johnson filed a patent for, "a plurality of doors" to regulate the sound issuing from the open end of an enclosed horn in a cabinet talking machine. It was granted January 11, 1910, assigned patent No. 946,442.(254) On January 8, 1908, John Bailey Browning had filed a patent for the same device. The United States Patent Office, however, realized there was potential conflict of interest with the Johnson patent and hesitated to grant the patent. In June of 1915 the Patent Office suggested that Mr. Browning alter his application by copying word-

for-word the claims in issue directly from the Johnson patent. This was done for the purpose of holding an interference hearing at the Patent Office. At the hearing the Patent Office Examiner of Interferences awarded priority to Mr. Browning, but a short time later the Patent Office Commissioner and Chief Board of Examiners reversed the decision and awarded priority to Eldridge Johnson. Not satisfied, Mr. Browning filed suit against Mr. Johnson on March 7, 1921 at the District of Columbia Court of Appeals.(14)

At the hearing John Browning was able to provide evidence that he was the true and original inventor. In 1897 on the back of a dance card he had prepared a rough drawing of an external horn talking machine held within a small wood cabinet with two

hinged doors in front of the horn. He had the foresight to sign the drawing and have two companions also sign as witnesses. Soon after this Browning developed more detailed drawings and even constructed several rough models which clearly disclosed the invention. In 1901 Browning entered the employ of the new Victor Talking Machine Company, of which Eldridge R. Johnson was president. Browning's position was that of inspector of motors, indicating to some extent his skills and knowledge of the business. Browning testified that over the next few years he had three times discussed his invention with Johnson and other officers of the Victor Company, but they failed to express serious interest. During this time Browning also went to a Philadelphia lawyer, Mr. Horace Petit, to procure a patent for his invention. However, Mr. Petit was also the attorney for Mr.



Johnson and the new Victor Company and the price named by Mr. Petit for procuring the patent seemed unduly high. Mr. Browning decided to take some time to consider further action.

At the Court of Appeals hearing Eldridge Johnson failed to testify on the excuse of illness. Since Victor was unable to discredit the evidence and witnesses presented by Mr. Browning, the Court reversed the results of the Patent Office hearing and awarded the patent priority to Mr. Browning. The Court held that Johnson derived the invention in question from Browning. The decision of the Court was also recorded at the U.S. Patent Office. On January 18, 1922, the Patent Office granted John Bailey Browning his patent, assigned No. 1,402,738.(259) By this time Browning had consigned 51% of

his patent to the Brunswick-Balke-Collender Company. Not content with these results and realizing that in legal terms the decision of a court of appeals is not technically a judgment, Victor prepared another case against both Browning and the Brunswick Company and filed suit at District Court "D" in Delaware.

The hearing was held on March 9, 1922. In the suit Victor presented a bill of complaint and requested the Court to enjoin Mr. Browning and the Brunswick Company from bringing infringement suits based on their patent. The Court heard evidence from both plaintiff and defendants, but found itself in some doubt of its own legal jurisdiction.

After considering numerous earlier precedent cases it was decided that a District Court of the United States may, "...entertain jurisdiction over a counterclaim for infringement of patents."(17) The Court was not impressed with Victor's case and their request for relief from possible legal action was denied.

Still not content with these results and claiming to have new evidence, Victor again brought suit against Browning and Brunswick at District Court "D" in Delaware; the hearing was held May 7, 1923. Victor requested the Court to declare the Browning patent invalid. Further, they claimed that the decision of the Court of Appeals was not conclusive of either patentability or priority. Numerous exhibits, depositions, and testimony were taken in open court.

Eldridge Johnson claimed that at the time of filing his patent application in January of 1906, he was the true and original inventor and that he derived no part of his knowledge or information of the invention from Mr. Browning or from anyone else. Further, in the fall of 1903 Johnson had built a demonstration machine embodying the invention. It had been called the "Small Medara" at the Victor plant and was well known to the workers and officials there. It had been named for one of the workers at the plant. Several witnesses testified to having seen the machine and that it, "...demonstrated the complete success of the invention." Witnesses claimed that the new invention was followed by a long period of internal horn design and development. Since August of 1906 Johnson had, through the Victor Talking Machine Company, placed many thousands of machines equipped with double doors on the market.(19)

After Victor had presented its case, the defendants (Browning-Brunswick) rested their case without offering evidence. They claimed the decision of the Court of Appeals to be a decision with all the incidents and consequences of a judgment and conclusive as presented. Again the Court considered several earlier precedent cases with numerous and conflicting decisions. It ultimately decided to give due consideration and validity to the finding of the Court of Appeals. Johnson's evidence failed to convince the Court since most of the testimony was not documentary but based on the recollections of witnesses. Even the drawings of the Small Medara cabinet did not show doors in front of the horn. This decision of the Court again awarded the priority to the Browning patent. However, in a surprise move, the Court also declared the Browning patent to be void—on the grounds of abandonment. On April 4, 1911, John Browning had, for unknown reasons, by amendment, removed the crucial Claim 1 on his patent application. He did not reinstate the clause until June of 1915. Under the guideline that the public interest requires that the applicant should not be lacking in diligence and since the four-year delay was not adequately explained, the Court declared the Browning patent void for abandonment.

These results failed to satisfy either Brunswick or Victor and on July 6, 1925, both companies filed cross complaints at the Third Circuit Court of Appeals. Victor had eight lawyers appearing for its case, but the Court considered both sides and confirmed the conclusions and decrees by the Delaware Court. The Johnson patent was held invalid due to prior invention and the Browning patent was held invalid due to abandonment.(20)



Twice again suits were filed—on November 23, 1925 and again on March 14, 1927—the Court reviewed the records but again affirmed the 1923 decision of District Court "D" in Delaware.(35) The failure of these appeals meant that John Bailey Browning was still the declared inventor of volume control doors for the internal horn talking machines.(36)

### The Year 1924

In January the Hurley Department Store of Camden, New Jersey (in Victor's back yard) announced it would sell Brunswick phonographs and records. The January 1924 Brunswick records catalogue had 143 pages. Paul Ash and His Granada Orchestra, Abe Lyman's California Ambassador Hotel Orchestra, the Oriole Orchestra, and saxophonist Rudy Wiedoeft were new additions. Walter B. Rogers and His Band recorded march tunes. Soprano Isa Kremer recorded a number of folk

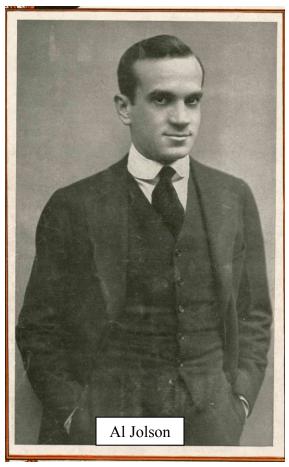
ballads for Brunswick; a versatile artist, her records were sung in English, French, Italian, Russian, or Yiddish. Isa Kremer was often billed as an "International Balladist." Tenor Giacomo Lauri-Volpi and soprano Elisabeth Rethberg were added to the New Hall of Fame artists. Elisabeth Rethberg had a remarkable voice; when she appeared at La Scala in Milan under conductor Arturo Toscanini in 1929, he named her the "...greatest living soprano." A versatile artist, Elisabeth Rethberg included Italian and German roles in her repertoire and she was noted for the nearly one thousand art songs in her repertoire. By 1924 the large number of Brunswick dealers around the nation held area conventions and sales conferences. Brunswick planned to limit the catalogue of records to one thousand



Isa Kremer

listings, thus the need to have a continuing list of cut-out records. This was done to help dealers with their record stocks and storage.(97)

On January 19, 1924, America's most popular artist, Al Jolson, signed a contract and became an exclusive Brunswick artist. Brunswick had outbid Victor, which had outbid Columbia. Brunswick gave Jolson a \$100,000 advance; it was not stated if this was a signing bonus or an advance against his future recording royalties. This high price was more for the prestige of the Jolson connection than possible profits from sales of his records.(234) Jolson's



first Brunswick record, "Steppin' Out" (#2567-B) was recorded in Chicago on January 18, 1924; he was accompanied by Isham Jones and His Orchestra.(1) Pages 142 and 143 of the March 15<sup>th</sup> issue of the Saturday Evening Post featured a two-page advertisement. "I'm on Brunswick records. folks. But listen! You ain't heard nothin' yet." Two pictures of Jolson were included. Jolson's new Brunswick records proved very popular. In the March 12, 1924 issue of Variety, M. Whitmak and Sons at 1650 Broadway in New York City, placed a full page advertisement for Jolson's Brunswick record, #2569—"I'm Goin' South" and "California Here I Come."(241) Brunswick sponsored a window display contest for Brunswick dealers; displays were based on Jolson and his records. Brunswick made available a large imitation record three feet in diameter to be used for the displays. Jolson remained with the Brunswick label until December 1932.(7)

A small article in the February 15, 1924 issue of the *Talking Machine Journal* stated that although he was only twenty-five years old, band leader Ben Selvin was celebrating his one thousandth recording. He had recorded for all the major record companies.(99) Also in February Brunswick opened a new record pressing plant in Los Angeles, California. Located at 2481 Porter Street the factory had the most modern



equipment with excellent capacity. That February a new song by Isham Jones, "The One I Love Belongs To Someone Else" became very popular. Also in February, Brunswick announced an exclusive recording contract with the Cleveland Orchestra; founded in 1918, the Cleveland Orchestra's principal conductor was Nikolai Sokoloff. In March a new house organ, The Brunswick Salesman started publication. In newspaper format the journal was for Brunswick's salesmen. Sales suggestions and current activities in the company were reported. In May Brunswick celebrated the opening of a

new Brunswick Building in Baltimore, Maryland. The building was six stories high and was located at West Lombard and Paca Streets. One section of the building was devoted to Brunswick's music division

By 1924 Brunswick executives considered radio to be a strong and expanding industry. It was also highly competitive, but Brunswick was a seasoned marketplace fighter and responded in March by announcing the details of an arrangement with the Radio Corporation of America (RCA) to install direct current Radiolas in Brunswick phonographs.(13). Early models were designed to have a radio driver attached to the tone arm in place of the reproducer when radio reproduction was desired. Soon models were designed with an internal driver attached to the small end of the internal horn and an external knob to control a "radio/phonograph" valve in the throat of the horn.(21) Termed a compression speaker, a radio driver is somewhat similar to a telephone receiver. Output wires from a radio receiver (with vacuum tube amplification) are connected to the terminals leading to the coils surrounding the pole pieces of a permanent magnet. A thin iron or iron alloy diaphragm is placed in close proximity to the magnet. The electric currents generated by the radio correspond to the musical and vocal sound waves coming from the broadcasting station. The electric currents cause a strengthening or weakening of the magnetic pull on the diaphragm which vibrates and generates the sound. A potential problem, the diaphragm is easy to "saturate" with too much magnetism which can cause distortion(s) of the signal.

Brunswick's popular Style 212 upright floor model phonograph was modified with the addition of a Radiola which was held in a large pull-out drawer below the horn chamber and above a few shelves for record albums. Some units used a 5-tube 3-dial tuned radio frequency receiver with transformers and condensers built by Kind Quality Products, Inc. Radio chassis from other manufacturers were used as well.(37) The early direct current radios required "A," "B," and "C" batteries and small UX-199 vacuum tubes for radio wave amplification. Early radio reception was often unsteady with station "drift" and "blast" by more powerful stations; this required the listener to frequently turn the large dial knobs to tune the desired station. A long wire antenna was also needed; the antenna could be wound around a frame. The Brunswick-Radiolas were described in more detail in a full-page advertisement in the April 15, 1924, Talking Machine World. In May, New York City residents could view seven Brunswick phonograph models modified with installed RCA Radiolas in the display rooms at Brunswick's New York headquarters at 799 Seventh Avenue. Mid-priced models were equipped with the Regenoflex Radiola while the least expensive instruments were equipped with the No. 3 or No. 3a Radiolas.

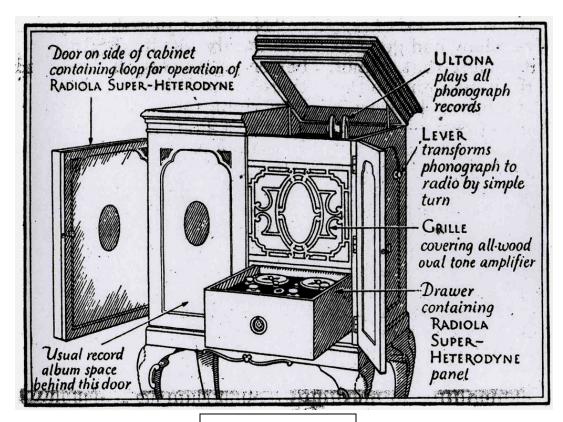
Around this time the Brunswick cabinet factories began to adopt the use of lacquer for the finish on its fine quality phonographs and other wood products. In 1923 Du Pont (E. I. du Pont de Nemours and Company) developed fast-drying nitrocellulose based pyroxylin lacquers. Called Duco lacquer, the new finish was found to hold gloss better over time and was even adopted as a finish for automobiles. With lacquer sprays it was possible to use various whitewoods, such as pine, beech, spruce, and holly for external cabinet trim. These woods do not "take" a stain and could not be used with

regular stain and varnish. They had been used mostly for bracing and internal cabinet support. Now it was possible to spray over the whitewoods with layers of dark lacquer and have them gradually blend with the larger veneer areas of the cabinets. This permitted the production of very beautiful cabinets. After 1926 many Brunswick phonograph and radio cabinets used whitewood trim

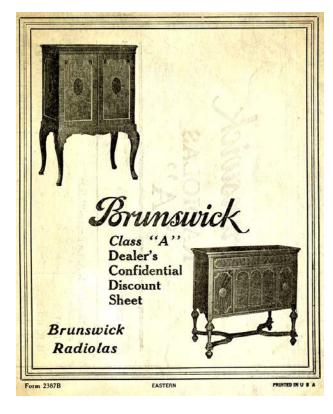
In February of 1924 in Chicago the Mound City Blue Blowers recorded two sides for Brunswick, "Arkansas Blues" and "Blue Blues" (#2581). It featured a comb, kazoo, and a banjo. The record was an immediate hit. The following month they recorded "San" and "Red Hot" (#2602) with Frank Trumbauer supplementing on C-melody saxophone. The group had been discovered by band leader Ray Miller. The comb was played by William McKenzie; a piece of ordinary newspaper was placed over the teeth of the comb. The kazoo was played by Dick Slevin; for a mute he merely used a glass tumbler over the end of the kazoo. Jack Bland was the banjoist.(235) Brunswick was amazed at the sales of records by this unusual group. Six more sides were recorded by the Blue Blowers before the group turned to other labels.(5,12)

In April the Brunswick Company moved its Eastern division in New York City to the new Brunswick Building at 799 Seventh Avenue on the corner of 52<sup>nd</sup> Street and Seventh Avenue. New recording facilities were installed on the top floor. Provisions were made for a special display room for Brunswick phonographs. Other areas of the building were assigned to other Brunswick enterprises. Pianist Leopold Godowsky's Brunswick records continued to impress critics. Critic Nicholas Dunaev in the July, 1924 issue of *The Musical Observer* wrote, "Godowsky has reached heights undreamed of by other masters of the pianoforte. Under his magic touch the piano assumes a richness of timbre, a variety of shades of tones never before realized."(52) Godowsky, however, was emphatic about his dislike for the recording process; he preferred to cut reproducing piano rolls.





**Brunswick Radiola** 



According to Brunswick's "Dealer's Confidential Discount Sheet" from mid-1924, the company had two classifications for its dealers, Class "A" and Class "B." The listed retail price for all phonograph models was the same for both classifications, but the dealer's price from the Brunswick Company was ten percent higher for "B" classified dealers. No indication was given for the classifications or for the higher wholesale prices for "B" dealers. In general, the Brunswick retail price had a forty percent markup from the wholesale price. Brunswick now had phonograph and Radiola factories in Dubuque, Iowa; Muskegon, Michigan; Rockford, Illinois; and in Toronto, Ontario. The May, 1924 issue of the *Talking* Machine Journal estimated that



seventy percent of American homes were still without a talking machine or radio.(101)

Due to his leadership skills and the success of Brunswick's music division, in June Percy L. Deutsch was made a vice-president of the Brunswick Company. At the same time A. J. Kendrick, Brunswick's General Sales Manager, was appointed to the company's board of directors.(104)

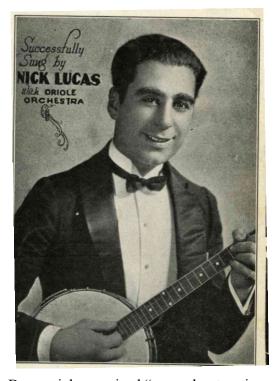
The Lyon and Healy Company had been a major Victor jobber and retailer in the Chicago area for many years. In a move that surprised the industry, in July the company discontinued its contract with Victor as an area distributor and added Brunswick

phonographs and records to its retail products, thus selling both Brunswick and Victor machines and records. Lyon and Healy devoted considerable window space in its main Wabash Avenue and Jackson Boulevard store to the Brunswick products. On April 28<sup>th</sup> the company celebrated "Brunswick Week" with live performances in its main auditorium by Gene Rodemich's Orchestra, Isham Jones and His Orchestra, and the Oriole Terrace Orchestra. Lyon and Healy planned to create a chain of neighborhood stores.(102)





**Around August** of 1924 the design of the Brunswick record labels changed to gold print and a shield design flanked by curlicues on a black background. The "Hall of Fame" records were divided into two groups. The "popular" (1000 series) had labels with gold print on a violet background; the "classic" (15000 series) featured black print on a gold background. Starting in 1924



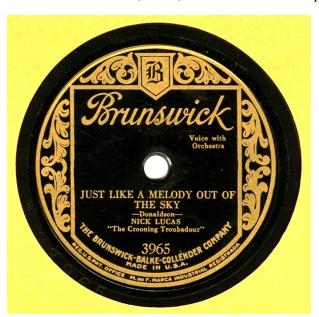
Brunswick records no longer show the record matrix numbers engraved in the wax.(5,43) Many Brunswick record labels have the title printed in Spanish as smaller print beneath the English language title.

For 10-inch records Brunswick assigned different catalogue numbered series for foreign language records: Spanish: 40000; Tagalog: 48,000; Cantonese: 49,000; French/Cajun: 52,000; German: 53,000; Hawaiian: 55,000; Mandarin: 56,000; Italian: 58,000; Russian: 59,000; Polish: 60,000; Scandanavian: 62,000; Jewish: 67,000; and Irish/Scottish: 68,000.

Brunswick declared September 11<sup>th</sup> to the 18<sup>th</sup> as Brunswick Radiola Week around the nation. Large full-page newspaper advertisements announced the event.

Brunswick promised "...moderate prices with liberal terms of payments" for all its Radiola models.(224,237) The Brunswick advertisement on page 11 of the September 16<sup>th</sup> issue of the *Chicago Tribune* listed all fifty-six local Chicago Brunswick dealers. Between September 22<sup>nd</sup> and 28<sup>th</sup> the first radio world's fair was held at Madison Square Garden in New York City. Nearly 200 exhibitors of radios and accessories were present and it was estimated 175,000 visitors attended.(141) Nick Lucas, noted guitarist and popular "Crooning Troubadour" made his first Brunswick records in November and remained with Brunswick until 1933.(11)

In November, 1924, the Brunswick Company purchased Vocalion records from



the Aeolian Company, a subsidiary of the Aeolian. Weber Piano and Pianola Company with offices at 689 Fifth Avenue in New York City.(29) The official transfer date was January 2, 1925. The Aeolian Company stated they were discontinuing their records division to expand their longestablished music instruments business. The Aeolian Company agreed to stock Brunswick phonographs, Radiolas, and records in its retail stores for five years, but continued selling Aeolian-Vocalion phonographs.(77,142) Brunswick operated the Brunswick and Vocalion labels separately, but with considerable

interchange of material and cataloguing. The Vocalion concert and operatic series were discontinued; its artists, Marguerite d'Alvarez, Florence Easton, Evelyn Scotney, and John Charles Thomas were included in Brunswick's "Hall of Fame" series. Brunswick used the Vocalion records primarily for dance music, jazz, blues, spirituals, and folk music. Brunswick Vice-President Edward R. Strauss was assigned to the new Vocalion label. The Vocalion record labels remained unchanged, except for the reference to the Brunswick manufacturer. Brunswick also discontinued the red matrix used for the Vocalion records and replaced it with the more standard black shellac.(5,30)

Also in November, Val McLaughlin, the "Original Radio Sandman," was announced as an Exclusive Brunswick Artist. Famous as a children's story-teller on radio, Ms. McLaughlin recorded several "story-telling" records for Brunswick. Pianist Elly Ney received excellent reviews for her concert performances around New York City.(236) In the United Kingdom, the Chappell Piano Company changed the Brunswick Cliftophone record labels to state, "Brunswick." The design of the labels was also changed.

#### The Brunswick Hour

By late 1924 Brunswick took a decisive step in favor of radio broadcasting by sponsoring a program to be called, "The Brunswick Hour of Music." The program was broadcast each Tuesday evening from the Brunswick studios in New York and relayed to five major stations of the American Telephone and Telegraph radio network (WJZ, New York; WGY, Schnectady; WRC, Washington; KDKA, Pittsburgh; and KYW, Chicago). The first broadcast was aired at 10:00 P.M. Eastern Standard Time on Tuesday, December 9, 1924, and featured tenor Mario Chamlee, soprano Florence Easton, pianist Elly Ney, and the Cleveland Orchestra.(143) The next broadcast was December 16 and featured Ray Miller's Orchestra, pianists Ohman and Arden, Marion Harris, Margaret Young, and "The Radio Franks," Wright and Bessinger. After the broadcasts Brunswick executives hoped to be rewarded with laudatory press reviews. However, there was little public reaction and press coverage. The Brunswick Hour had the misfortunate to debut close to the same time that the Victor Talking Machine Company decided it was time to officially acknowledge the existence of radio.(58,62,143) With a barrage of publicity that only Victor could command, Victor sponsored its first radio program on New Year's night, 1925. Victor selected the most famous tenor of the day, John McCormack, and the popular Metropolitan Opera soprano, Lucrezia Bori, to be the artists for its first program. It was a major media event; radio audiences were delighted with an entire hour of favorite songs. Columnists were ecstatic in their praise.(28,58)

Still, the Brunswick Hour found a large audience of steady listeners. It was broadcast over station WJZ in New York and featured the Brunswick Symphony Orchestra conducted by Walter B. Rogers. Brunswick's "Hall of Fame" artists took turns performing for the weekly broadcasts. With the success of this program, Brunswick decided to sponsor a musical quiz program. It was called "The Brunswick Hour Musical Memory Contest." On the program, five thousand dollars in cash was offered each month to listeners who could identify both the music and the performers which were

broadcast. Brunswick dealers supplied the contest blanks and contestants were urged to prepare by listening to Brunswick records by the "Hall of Fame" artists. The initial broadcast was February 3, 1925. The listening public welcomed the new program and it attracted a large audience. Brunswick used elaborate security precautions to make sure none of the artists would be recognized during broadcasts. The artists would arrive at the studio in cars with drawn shades and heavy cloths were used to cover their faces as they entered and left. The artists were kept in special separate rooms. The announcer was kept behind locked doors as he introduced the unnamed artist(s). Even the orchestra members were not permitted to see the artists they accompanied. The program did not last long on the air, but before it ended one winner was a young salesman from New York, Robert Lanyon. He earned his five thousand dollars by identifying a dozen different singers from the five separate broadcasts in March.(28,150)

#### The Year 1925

All issues of the *Talking Machine World* from late 1914 to January of 1925 featured an advertisement by the Victor Talking Machine Company on the front cover, which was a thick orange-red construction paper. Victor also occupied pages five and seven with full-page advertisements. However, the 1924 Holiday sales season proved to be very disappointing for Victor and other phonograph companies. Victor had to cut its three million dollar advertising budget.(78) Sales of Victor's Red Seal records were down despite lowered prices.(242) In contrast, the Brunswick Radiola models had had good sales. Starting in February of 1925 and lasting until mid-1930, the *Talking Machine World* covers featured advertisements by the Brunswick-Balke-Collender Company. Brunswick also occupied advertising pages five and seven.

In January Brunswick announced two new Radiola Models—the Model 60 and the Model 460. These were the first models to contain the new Radiola Super-Heterodyne. Developed by radio pioneer Edwin H. Armstrong, the Super-Heterodyne converted the incoming high radio frequencies to a lower intermediate frequency giving more control to the sound amplification and filtering. Commenting on these new models, A. J. Kendrick, General Sales Manager of the Brunswick phonograph division stated, "The remarkable demand that we have been fortunate in securing for Brunswick Radiolas prompts us to amplify our line somewhat to meet the market fully. The public has proved itself keenly interested in our entire line of instruments, and Brunswick dealers have consequently experienced sales volumes that heretofore had never been encountered." (144)

#### **Brunswick Radiola Model BR60**

Closely examining this model in a private collection, it is a medium-sized console in a handsome dark mahogany cabinet. On the right (facing) half of the cabinet is the standard acoustic Brunswick phonograph with the two-diaphragm Ultona reproducer; the stylus bar no longer contains the Pathé extension and lock nut. Except for the reproducer the exposed metal parts are gold plated. The 12-inch turntable is covered with green felt; the turntable is powered by a hand-wound three-spring motor. The left side contains the



**Brunswick Radiola Model BR 60** 





RCA Radiola. Separate lids cover the phonograph and radio sides; both lids have dual spring-action lid supports. The standard Brunswick molded oval internal horn is in the center of the cabinet; a radio driver is attached to the back of the small end of the internal horn. At the right side of the cabinet near the crank escutcheon is a small gold-plated switch for "phonograph" or "radio." A door covers the horn grille; the door can be lifted down and slides under the horn chamber. The grille has an Oriental design. The direct current Radiola has a small metal plate which states, "Brunswick-Radiola Super Heterodyne (Second Harmonic) Supplied To The Brunswick-Balke-Collender Co. by Radio Corp. of America." It has six small vacuum tubes and two large station-selector dials. At the left side of the Radiola unit is a small wood channel to hold spare tubes. The channel has a matching wood lid. The Radiola antenna is

located in a large door at the left side of the cabinet. Opening the door a long antenna wire is wound around a wood frame. Station reception can be enhanced by changing the open position of the door. At the back of the cabinet are small compartments to hold the "A" and "B" batteries.

By 1925 the Brunswick records catalogue had reached 180 pages. New to the catalogue were Vic Meyers and His Orchestra, Ray Miller and His Orchestra, and Wright and Bessinger (the Radio Franks). In November Harry Archer and His Orchestra and Ben Bernie and His Orchestra were added. Louis Katzman's orchestra was recorded in December. Baritone Michael Bohnen, mezzo-soprano Karin Branzel, violinist Michel Piastro, baritone Friedrich Schorr,



and baritone John Charles Thomas were

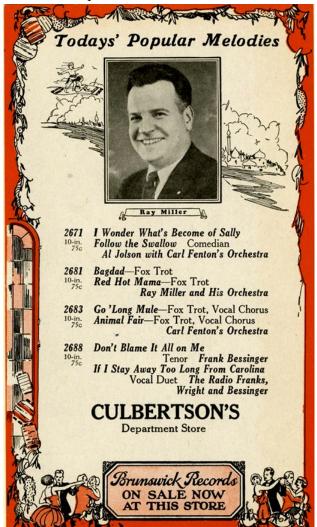


Frank Munn the Silvery Voiced Tenor

added to Brunswick's "New Hall of Fame" artists. The Cleveland Orchestra, conducted by Nikolai Sokoloff, and the Minneapolis Symphony Orchestra, conducted by Henri Verbrugghen, each recorded several Brunswick records. Tenor Allan McQuhae recorded Irish ballads. Ray Miller and His Orchestra were often referred to as "Broadway's Favorite" due to their

long period of success in the New York area. (103) Ray Miller owned a booking agency based in New York and for a time managed the Mound City Blue Blowers.

One of Brunswick's most popular artists joined Brunswick in 1925, tenor Frank Munn. Brunswick's musical director, Walter Haenschen, was able to bring out the exceptional natural qualities in Munn's voice. Frank Munn's recordings of "Just A Flower From an Old Bouquet," "Pal of My Cradle Days," "Memory's Garden," and similar heart-rendering ballads sold in large numbers. Munn's Brunswick records helped him launch a professional career. He became a regular on the Brunswick radio program,



now called the "Brunswick Hour of Music." Throughout the 1920's Munn's records of "Just a cottage Small," "Old Pal," "My Mother's Eyes," "I Surrender, Dear," "Song of Songs," and ageless Irish ballads sold by the thousands.

In March when Isham Jones and His Orchestra were booked into the Café Rue de la Paix on 54<sup>th</sup> Street in New York City, it was major headline news in Variety and a noted event for New York City.(243) Also in March Brunswick announced the new Eton console model phonograph for the popular price of \$160.00. Designed with Queen Anne legs, this Ultona model was sized for small homes and apartments; it was available in Adam brown mahogany or walnut.(145) The March *Talking* Machine World issue announced that Brunswick had modified three of the popular upright phonograph models to be Brunswick Radiolas. RCA IIIA receiving sets were installed into models 210, 212, and 217. The receivers were mounted in a pull-out

drawer below the horn chamber. A radio driver was installed in the small end of the internal horn and a phonograph/radio knob was installed behind the crank escutcheon. Models 210 and 212 were finished in Adam brown mahogany or walnut while the model 217 was available in Adam brown only.(146) In April Brunswick introduced another small console phonograph model, the Arden.(147) Surveys of U.S. homes indicated that while some communities had as many as fifty percent of homes with one brand or another of phonograph, most communities had only twenty-five to thirty-five percent.(151) The Lyon and Healy Company in Chicago advertised the Brunswick

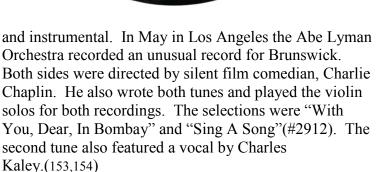
Radiola models in the April 12, 1925, *Chicago Tribune* with the offer: "\$5.00 a week will place one in your home."(226)

In 1925 the Brunswick Salon was opened at 668 Fifth Avenue at 53<sup>rd</sup> Street in New York City. In supreme elegance and style, this was no ordinary phonograph dealership. Managed by brothers Chester and Cornelius Abelowitz, the Salon was designed to attract the most affluent customers. Along with RCA and Atwater Kent radio receivers, the highest quality Brunswick phonographs and Radiolas were attractively displayed. Famous and prominent persons were among its customers. Outstanding artistic features of the models were stressed; price was not even mentioned as most customers could afford to pay cash. It was not unusual for one customer to purchase several machines. The Salon proved very successful. Extensive advertising in newspapers and magazines played an important part in the success of the Salon. For the formal opening on April 25<sup>th</sup>, Isham Jones and His Orchestra, the Radio Franks, Frank



Munn, and the Brunswick Concert Orchestra performed for the audience of more than 1000 visitors. Between 4:30 and 5:30 p.m. the program was broadcast over Radio station WJZ.(148,149)

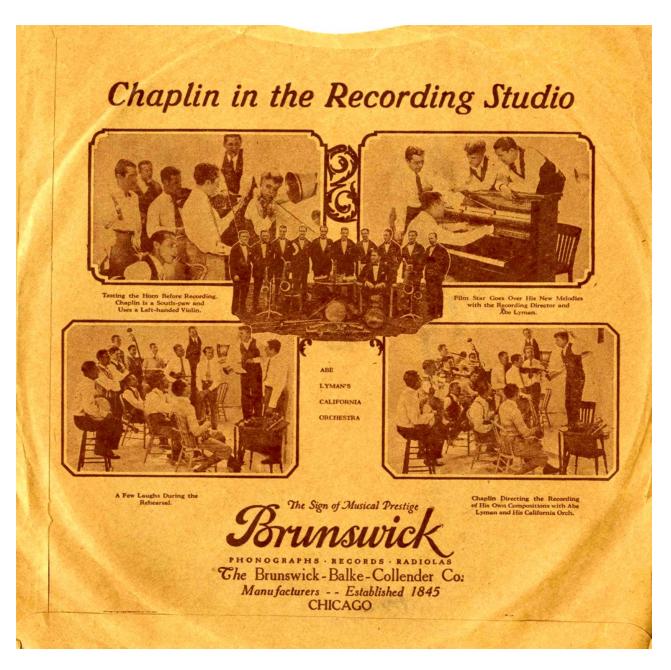
The week of May 18, 1925 was designated as "O Katharina" week by the New York Music Publishing House to celebrate this very popular tune for both song





of Abe Lyman's Orchestra

Also in May the Victor Talking Machine Company finally announced it would install RCA Radiola receiving units in Victrola cabinets; shipments of the new combination were due in the fall. The arrangement did not affect the agreement between RCA and the Brunswick-Balke-Collender Company made a year earlier.(152) In 1925



stock of the Brunswick Company was listed on the New York Stock Exchange. Brunswick developed the June-Day Gift Club to help sell Brunswick phonographs. Brunswick advertised the club as, "A Surprise Gift of Great Value—for June Brides and Wives and Girl Graduates." It cost only two dollars to join the club; details were available at local dealers. Friends and family members could all contribute towards purchasing the surprise gift of a new Brunswick phonograph.(42)



On May 31st, The Fair, a Kresge department store at State, Adams, and Dearborn Streets in Chicago, announced new reduced prices for all the Brunswick Radiolas (227):

Model	Original Price	New Price
30	\$190.00	\$170.00
35	\$265.00	\$245.00
100	\$400.00	\$300.00
60	\$500.00	\$400.00
160	\$550.00	\$450.00
260	\$600.00	\$500.00
360	\$650.00	\$550.00
460	\$750.00	\$650.00

The June 15<sup>th</sup> issue of the *Talking Machine World* presents a full-page advertisement for the new Vocalion records, now with black shellac. Vocalion records were listed at the new price of fifty cents per record in the East; fifty-five cents in the West. Brunswick planned to provide the latest popular songs, dance tunes, and novelty hits, all at popular prices. In June Isham Jones and His Orchestra recorded a very popular record, #2933, "I'm Tired of Everything But You" and "You Got 'Em."(153)

## **Light-Ray Recording and The Brunswick Panatrope**

The Brunswick-Balke-Collender Company was not included when the Western Electric Company licensed patent rights for the new electrical recording method to the Victor Talking Machine Company and the Columbia Phonograph Company early in 1925. The newly developed electrically recorded records had not only more volume but much expanded fidelity. With the acoustic recording method it was difficult to capture sound waves below 250 cycles—just under middle "C" on the piano. The new Western Electric recorders were designed to operate over a range of frequencies from 30 to 5,500 cycles. Percy L. Deutsch had Brunswick collaborate with engineers of the Radio Corporation of America, the General Electric Company (GE), and the Westinghouse Electric and Manufacturing Company to adapt the Pallophotophone light-ray electrical recording method for phonograph records. This method had been developed for soundfilm recording by Charles A. Hoxie for General Electric with the input of Professor Edward Kellogg and others at GE. Instead of a microphone, a strong beam of light was reflected to a photoelectric cell by a tiny crystal mirror so mounted as to respond to minute vibrations in sound waves. The movements of the mirror would be translated into electrical energy by the photoelectric cell, amplified by the vacuum tube recording equipment, and with a magnetic recording head converted into mechanical energy for engraving a phonograph record. The recording stylus was a precision-ground ruby or sapphire that was sharp and of a shape to insure a clean cut through the wax recording blank

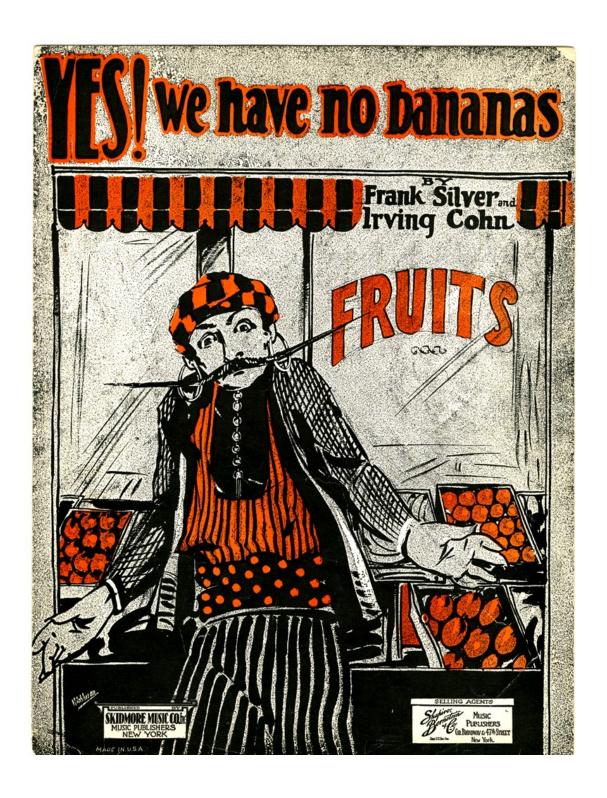
In February experimentation with the new General Electric equipment began in Brunswick's New York studios and close to GE's electrical engineers in Schenectady. The first electrically recorded commercial masters were produced on April 7<sup>th</sup>. A new studio, Room #3, was opened for electrical recording in Brunswick's Eastern offices at 799 Seventh Avenue in New York City. At first Brunswick released mixes of electric and acoustic recordings with most still by the acoustic process. In May Brunswick began recording masters for its recently acquired Vocalion subsidiary using the GE method. Brunswick's Chicago studio was converted to GE equipment during the summer with the first electrical recordings by Abe Lyman and Paul Ash on September 22<sup>nd</sup>. The last acoustic master was made in New York on June 1<sup>st</sup>, but the recording was not released. The conversion had not been easy nor had the early results been good. The first light-ray recordings were under-recorded and had a boxy, somewhat muffled sound quality. Studio engineers, used to a simple mechanical recording system, found it difficult to master the complex of electronic equipment. The system was easily overloaded. By the summer of 1926 light-ray recording had greatly improved but was still of less quality than the Western Electric microphone method used by Victor and Columbia. (63)

To play the new Brunswick records, engineers designed the first all-electric reproducing instrument for home use, the Brunswick Panatrope. General Electric's Radio Manufacturing Department furnished the electronic components. It featured alternating current power, an electric motor powered turntable, rugged horseshoe magnet pickup, a vacuum tube amplifier, and one of the first dynamic speakers to be used on home equipment. To describe the new Panatrope, Eastern District Manager, N. E. Branch, wrote, "The Panatrope is a new musical reproducing instrument involving new inventions and entirely new principles—it is not a phonograph or improved phonograph. The name 'Panatrope' is made up of two ancient Greek words, 'Pan and Trope'—Pan



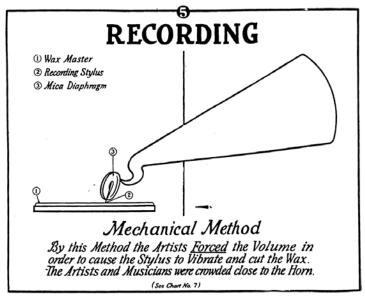
meaning all, and Trope, as applied to music, meaning 'Octaves in Music." Brunswick emphasized the term "Panatrope" as the replacement for "phonograph." In the rush to place the Panatrope on the market, the first units were not well balanced, despite having nearly unlimited volume. Soon amplifier units were improved and the sound reproduction surpassed acoustical machines. Brunswick produced a line of Panatrope models with and without Radiola. Brunswick even produced a disc recording device for home use; it was called the Pallatrope.(13,21)

The listening public was unaware of these new developments until August 13, 1925, when a long article appeared in the "Amusements" section of the *New York Times*. It announced that a dramatic change was about to occur in the technology of recording sound. It stated, "Mr. P. L. Deutsch of Chicago, Vice President of the Brunswick-Balke-Collender Company, announced here yesterday that his company, the General Electric Company, the Radio Corporation of America, and the Westinghouse Electric Company had jointly perfected a new instrument, which they assert is (a) sound-reproducing instrument which they assert is greatly superior to the phonograph and the radio in its musical range and quality. The invention, which has been named the Panatrope to indicate that it reproduces all octaves, is a combination of radio and talking film developments with the phonograph." Mr. Deutsch was quoted, "This instrument is the result of heartiest cooperation between the radio and phonograph interests. It has been largely developed by radio engineers with the help of radio patents. There is entire harmony between the two interests."(238)



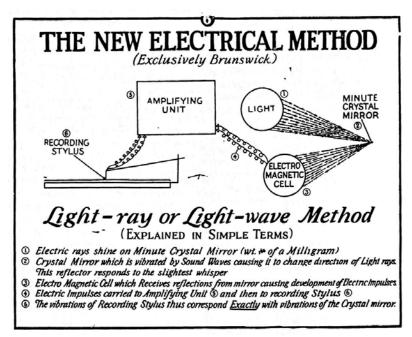






The article stated that Brunswick planned a private demonstration of the new instrument on Thursday or Friday of that same week in New York City. Public demonstrations were planned for October in Carnegie Hall. The use of vacuum tube amplification would permit adequate volume to fill the hall. The article also describes in some detail the new light-ray sound recording method and the sound reproducing method of the new Panatrope. The article also announces another amazing development, "The grooves of the

ordinary record are cut to 80 to an inch, and the 12-inch record runs for approximately five minutes. So much greater delicacy is achieved in the (new electrically recorded) records that the grooves have been cut 500 to an inch and 12-inch records have been made to reproduce whole symphonies, the record lasting for forty minutes. This is regarded as a highly important development for the future enabling the music-reproducing instrument to hold its own against the competition of radio. The forty-minute record is a laboratory article at present and will not, for commercial reasons, be introduced for some time to come, according to Mr. Deutsch."(238) Although Brunswick had been releasing light-ray recorded records for several months, the article announced that the new records were due to be issued in October. A long list of Brunswick artists who had recorded by the new method was presented. Mr. Deutsch further announced that Brunswick was experimenting with developing a permanent needle since the new Panatrope reproducing method was expected to cause less wear on the needle and records.



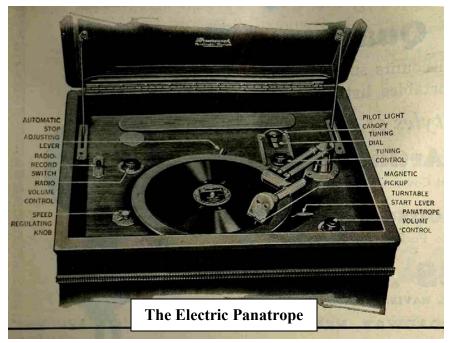
These announcements must have been of considerable interest in the offices of the Victor Talking Machine Company in Camden, New Jersey. The next day another article appeared in the "Amusements" section of the New York Times. The headline read, "Victor Co. Produces A New Record Also" and. "Officials Say Invention for Phonograph Will Revolutionize the Industry." The first paragraph states, "The Victor Talking Machine Company announced yesterday that it was soon to place on the market an improved music producing instrument which will revolutionize the entire industry." Another section states, "E. R. Fenimore Johnson, President of the Victor Company, said that he was not ready to describe the invention in detail, but he called it 'the ultimate in sound reproduction.' He said that it gave complete mechanical reproduction of the entire range of audible sound. The new Brunswick machine....is equipped with vacuum tube amplifiers and disk resonators and is run either by batteries or by connection with an electrical system. The new Victor machine, it was said, is non-electrical."(239)

Dr. Lee De Forest, famous radio inventor and inventor of the Phonofilm, remarked that his patents were not in any way infringed by Brunswick's new method. He was quoted, "I welcome this invention. I believe it will save the phonograph. I am very fond of the phonograph, but I haven't played mine for months, simply because I am tired of changing the records every few minutes. If they are successful in getting out a record which will play for half an hour without interruption, it will certainly be a remarkable achievement and one which the public will greatly appreciate." The final paragraph states that the Brunswick Company would give a private demonstration of the new Panatrope at the offices of the Brunswick-Balke-Collender Company at 799 Seventh Avenue at 2:30 that afternoon.(239)

An article in the August 15<sup>th</sup> issue of the *Talking Machine World* also presents Mr. Deutsch's announcement of the Panatrope, new electrically recorded records, and the intention of producing long-play records in the near future.(155) Even though Brunswick did not produce a commercial long-play record, the original idea of a lateral long-playing disc can be awarded to Brunswick. On October 2<sup>nd</sup> the new Brunswick Panatrope was demonstrated at the company's Chicago headquarters for an audience of music critics, newspaper representatives, and the trade press.(157) Despite the development of the all-electric Panatrope, Brunswick introduced in September a new \$275.00 Brunswick Radiola Super-Heterodyne model with the new high voltage RCA UX120 adapter tube. No acid batteries or outside wires were needed for the new model; the door in front of the horn grille was thick as it contained the antenna wire wound around a frame.(228)

On Sunday, November 1, 1925, in a full page advertisement in the *Chicago Tribune* on page 13 of Part 1, Brunswick introduced the Panatrope: "The ONLY purely electrical reproducing instrument known—the most remarkable of all musical achievements. We've harnessed the power of electricity." No photograph or illustration of the new Panatrope was included. On page 28 of the same issue, the Lyon and Healy Company advertised the new Orthophonic Victrola. Again, no illustration of the new Victrola was included.(229) In late 1925 Victor promoted the acoustic Orthophonic Victrolas to play the new electrically recorded records. Brunswick's advertisement of the electric Panatrope may have spurred Victor to advance release of an all-electric unit for home use. There is still confusion as to which company placed the first all-electric machines on the market.

The October 24<sup>th</sup> issue of the *Saturday Evening Post* presented a two-page advertisement in two-tone color of the new two-door Orthophonic Victrola, Credenza model. A large illustration of the Credenza was presented along with a smaller insert illustrating the re-entrant internal horn. Then the October 31<sup>st</sup> issue featured another two-page advertisement in two colors introducing the new eight-tube Super-Heterodyne Victor Electrola-Radiola. It could play records



acoustically or electrically and would run on DC or AC. Although the name of the new model was not presented, it was later called the Borgia II. The advertisement also states that other models would be made available at prices ranging from \$300 to \$1,000. The November 7<sup>th</sup> *Post* featured a two-page advertisement of the Grenada model Orthophonic Victrola, although, again, the model was not named. This advertisement appeared just five days after the

famous November 2, 1925, "Victor Day," when Victor introduced the new Orthophonic Victrola and electrically recorded Victor records to the public. Although there was no connection with Victor and the new Orthophonic Victrola, in December the Federal Radio Corporation (a division of the Federal Telephone and Telegraph Company) advertised the new Ortho-Sonic radio models.

In November The Fair department store in Chicago offered the Brunswick Ultona phonograph models at "sensational cut-price." The Fair claimed, "We purchased the entire Brunswick warehouse stock. Every phonograph is brand new. Guaranteed mechanically perfect." \$5.00 down with a year to pay was all that was needed. Models selling for \$150.00 were for sale at \$47.50 and \$175.00 models for \$59.50. Models selling for \$225.00 were offered for 63.50; models selling for \$325.00 were available for only \$92.50. The Fair gave no indication that these models were considered to be obsolete.(230)

The Brunswick all-electric Panatrope models were not cheap. Base price started at \$350 per unit. Conversion to the production of Panatrope models took time and it was well into 1926 before dealers were adequately supplied with Panatrope models. Brunswick's Radiola models were still advertised by the Brunswick Salon that December. Over the next few years Brunswick produced several Panatrope and Panatrope-with-Radiola models, including low-priced units.

# Brunswick Panatrope, Model P-3

The author was able to examine a Model P-3 Panatrope in a private collection. The mechanism is held within a handsome Hampton style walnut cabinet. It contains the Panatrope



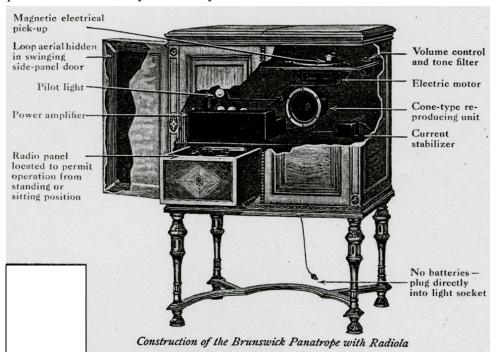
**Brunswick Panatrope, Model P-3** 

only; no radio. The gold medallion near the turntable has the word "Panatrope" stamped on it. The speaker is located at the center front of the cabinet with record storage space on either side. Four original Brunswick albums are found in each of the compartments. This is an early model, with the tone arm consisting of the larger end of the older Ultona tone arm connected to a smaller "goose-neck" portion which holds the horseshoe magnet pickup. The tone arm and metal shell for the magnetic pickup are gold plated, but the shell is not ornamented and contains no printed or engraved writing. It is designed to play 78 rpm shellac records only. The horseshoe magnet pickup still requires changeable steel needles. The turntable, motor, and tone arm are located in the center of the Hampton cabinet. Near the turntable at the back of the motor board is a large volume control knob. The single lid has dual spring-action lid supports. The decal is located behind the tone arm at the back of the cabinet and is the same as earlier decals, "Brunswick" in large gold script, with "The Brunswick-Balke-Collender Company" in small print beneath. The 12-inch turntable has a green felt covering. When the turntable is lifted from the spindle, the usual black metal motor board is visible, the top of the motor board has a large decal in the shape of a shield. On it are listed in very tiny print twenty-one patent numbers and dates. The motor board has the usual two collapsible ring pulls for lifting the motor works. The AC motor appears to be of the induction disc type. The electronic vacuum tube amplifier is held within the cabinet and not readily visible. The grille over the speaker is not designed to lift up and out and there is no door in front of the grille. Sound reproduction of the unit is poor. It is weak and produces humming noises; it needs further restoration of the electronics.

Restoring the electronics of these early units can be difficult. Transformers, capacitors, and vacuum tubes may need to be replaced. Transformers can be expensive. Often the horseshoe magnet pickup needs to be restored; sometimes the magnet is found to be weak. The frame that holds the stylus bar between the open arms of the magnet is sometimes found broken or no longer centered. The speaker is sometimes found in a frozen state. The field coil may be broken or burned. The voice coil may no longer be centered. The leather around the cone is often dried, cracked, and stiff. Early radio collectors and restorers can usually be the most help. A restored Panatrope can have excellent sound reproduction.

Mr. David Urner, one-time Brunswick dealer in Bakersfield, California, remembered the introduction of the Brunswick Panatrope. In late 1925 the Brunswick Company invited Mr. Urner and other Brunswick dealers in his area to go to the Biltmore Hotel in Los Angeles for a special dinner. Isham Jones and His Orchestra provided live entertainment. Later in the evening Mr. Jones' orchestra played in contrast with his own new electrically recorded version of "Collegiate" as played on a new Panatrope. The dealers were pleased and impressed with the new sound but were surprised at the high \$600 price for the unit. Despite the price, Mr. Urner reported that the buying public was also impressed and the Panatrope models sold quite well, especially for use in public places. Listeners were impressed with the full booming bass sounds.

Isham Jones and His Orchestra never recorded a commercial record of "Collegiate." A special demonstration recording of that tune may have been pressed, or perhaps the tune was actually, "The Original Charleston", recorded on October 2, 1925 (#2970). For a time Brunswick staggered the release of light-ray recorded records with acoustically recorded records. Some records were even released with an acoustic recording on one side and a light-ray recording on the other side. Record labels gave no indication they had been recorded by a new process. The one way to identify which Brunswick records of this transitional period were



electrically recorded is to play them. Even that is not wholly reliable for determining which performances were electrically-cut since not all light-ray recordings have the full sound listeners expect from electric recordings.

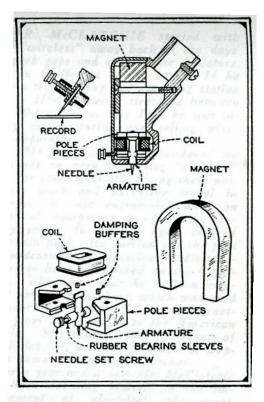


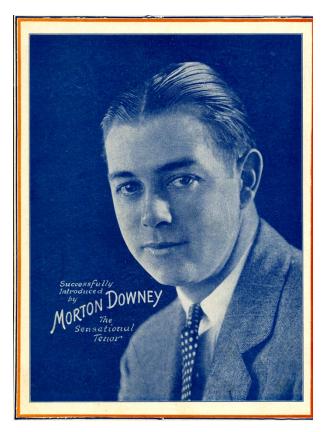
Fig. 2. (Above) The pickup designed by the G. E. Co. in 1925, which was first used on the "Panatrope." This construction has been closely followed by many succeeding pickup manufacturers. The armature is pivoted in rubber sleeves held between the lower pole-pieces. Rubber buffers, held by the upper pole-pieces, serve to center the armature and damp its tendency to resonance. Upper views show device in cross section; below, the parts "exploded"

At first Brunswick advertised the new records as "Musical Photography" or "Music by Photography." The term "Light-Ray" was not used until 1926. The first advertisement to feature the phrase, "Light-Ray" may have appeared in the February 15, 1926 issue of the Talking Machine World, "Of the two new electrical recording methods, Brunswick exclusively has the 'Light-Ray' electrical process—the method which reproduces all vibrations of the entire musical range naturally—without exaggeration."(161) For the 10-inch popular records, the early electrically recorded records start around #2881, then #2900 for Brunswick and #15200 for Vocalion discs. For 12-inch popular Brunswick records it was about #20041. For the celebrity records it was about #10214 for 10-inch and #50067 for 12inch. Brunswick used an "E" prefix for the matrix numbers of its electrically recorded records, but until late 1931 the matrix numbers were not usually pressed into the records. With the introduction of electrically recorded records the standard V-shaped record groove of 3 mils bottom diameter became more or less universal for most companies recording and pressing lateral-cut 78 rpm shellac records.

The Brunswick Company was eager to have the public hear the new electric Panatrope and light-ray records. On November 11<sup>th</sup> at the Aeolian Hall, 29 West 42<sup>nd</sup> Street in New York City, Brunswick hosted a gala demonstration of the new Panatrope and

records. Many celebrities were present for the event, including RCA's president, David Sarnoff. The demonstration Panatrope was briefly converted into a radio set for an address by RCA's chief broadcasting engineer, Dr. Alfred N. Goldsmith, who described the new invention. Also present was New York financier, Otto Kahn. Otto Kahn was also on the board of directors for the Metropolitan Opera; his son, Roger Wolfe Kahn, had his own popular dance band in New York.(159) The next day P. L. Deutsch demonstrated the new Panatrope and light-ray records to crowds in the Wanamaker Auditorium. Special demonstrations were held throughout the United States and Canada. Demonstrations were often held in hotel ballrooms and a typical program featured about fifteen records representing a broad mix of music.(56)

Not everyone was pleased by the advent of radio and electrically recorded records. In 1925 radio still had its detractors. Thomas Edison was convinced that electrically recorded music would introduce distorted sounds. He also said, "Music on radio is very poor because it's badly distorted. I quite approve of radios and think that there should be one in every home, but, at the same time, it should not be used for musical purposes. It is good for news, reports of



games, boxing matches, and speeches. The radio fad will pass and people will once more turn to the phonograph."(28)

In September Brunswick introduced a new portable model. It was available for \$40.00 and came in a blue leatherette case with silver lining or with black leatherette with gray lining. This model had a larger internal horn and had space to store twelve records.(156) By 1925 the Brunswick Company and its subsidiaries claimed to have nearly five thousand employees. Brunswick production plants had combined floor space of nearly 2,123,200 square feet. Brunswick owned hardwood timber lands and a saw and planning mill at Ewen, Michigan. Also a mill at Beech Fork, Illinois, and a veneer and panel plant at Knoxville, Tennessee.(29) Brunswick could claim it had four thousand independently owned retail music stores dealing chiefly, if not exclusively, in Brunswick products.(158) In November popular tenor Morton Downey

recorded his first Brunswick records; in December vaudeville comedienne Esther Walker made her first Brunswick records. After many dealers objected to the cheapening of the Vocalion label records, on November 14, 1925, Brunswick raised the price for the 10-inch Vocalion records from fifty cents to seventy-five cents.(216) Band leader Paul Ash decided Brunswick had too many "name" bands under contract and was not giving him the attention he merited. He decided to sign with the Columbia label.(160)

#### The Year 1926

The cover of the January 15th issue of the *Talking Machine World* contained a bold advertisement for the new Brunswick Panatrope, "NOW – the Complete Musical Scale – by Electricity -- The Brunswick Panatrope -- The Sign of Musical Prestige." An elaborate sales and publicity campaign for the new Panatrope and "Light-Ray" records was prepared. The campaign was designed to arouse public interest and in an article in the January *Talking Machine World* issue, "... to impart to the dealer and his sales staff a knowledge of the Panatrope so that the demonstration of the instrument will be made in a manner fitting its merits and capabilities." Two booklets were prepared for use by Brunswick sales personnel. One gave a detailed explanation of the Panatrope and how it is advanced over former models of phonographs and how it synchronizes electrical recording with electrical reproduction. The second booklet presents how to best demonstrate the instrument to individuals and to groups. Promotional materials were also prepared which could be advertised and distributed by dealers. A booklet for window displays was also prepared.



Finished in highly figured Walnut with overlay of curly Maple and equipped with drawer type Record Library. Instrument is 27 in. wide, 45 in. high and 17 in. deep. Operates entirely by electricity, from 110-volt, 50- to 60-cycle alternating current.

Magnetic pick-up, volume control, power amplifier and 6-in reproducer of the cone type are the principal electrical features of the instrument. A radio-jack set in the rear of the cabinet utilizes the amplifying and reproducing equipment of the instrument and turns it instantly into a loud speaker and amplifier for the independent radio set. Equipment also includes specially designed noiseless electric motor and inspected radio tubes.

Also in the January 15<sup>th</sup> Talking Machine World issue the Columbia Phonograph Company announced a new line of machines for playing electrically recorded records although Columbia had been issuing electrically recorded discs without fanfare since mid-1925. Columbia did not advertise the term "Viva-Tonal" until July of 1926 when the company introduced four new Viva-Tonal acoustic models.(166) On page 1 of the February 15th, Talking Machine World Brunswick announced plans to produce several Panatrope models including Models P-2, P-3, P-10, and the Panatrope-with Radiola, Model PR16-C. Brunswick referred to these as, "...a line of musical reproducing instruments." One

model would cost less than one hundred dollars.(162) The April 15th issue presents six P-3 Panatrope models housed in the earlier Brunswick phonograph and Radiola cabinets, including the Beaux Arts, Chippendale, Georgian, Gotham, Lombardi, Oxford, and Stratford cabinet designs. In March, Wendell Hall, the "Red Headed Music Maker," gave several live performances when the new Panatrope was demonstrated at dealers and meetings in the mid-West. Using his ukulele he would sing in duet with his own Brunswick records. Despite the higher prices and delays in production and delivery, Brunswick dealers found many customers were willing to pay and wait for the Panatrope model they wanted. The Brunswick Hour of Music was now broadcast over NBC's Blue Network; the Brunswick Concert Orchestra was led by Walter G. Haenschen.(183)

Model

P-13

An article in the April 15<sup>th</sup> *Talking Machine World* issue stated that the Brunswick Company reported a net loss for its phonograph division of \$750,512 for the year ending December 31, 1925. This compares with a net profit of \$2,801,723 for 1924. In a statement to stockholders, it was explained that the inability to produce large quantities of Panatropes and the numerous technical problems which developed, caused the company to be deprived of much business during the second half of 1925. Expectations for 1926 were very high, however. With the high sound volume the Panatrope models were able to produce for public meetings and open areas, the Panatrope was found to be a good replacement for a live orchestra or band. In the April 18, 1926, issue of the *Chicago Tribune*, Lyon and Healy advertised they could provide immediate delivery of the Panatrope models P-2, P-3, 16-C, 28-C, 38-C, and 48-C. Most came



with walnut or Adam Brown mahogany cabinets.(231) Brunswick purchased 21,000,000 feet of standing timber near Houghton, Michigan, for phonograph and Panatrope cabinets as well as other Brunswick products.(163)

Also in April Vincent Lopez signed a

contract to record exclusively for Brunswick. Lopez and His Casa Lopez Orchestra were playing nightly at the Casa de Lopez, 247 West 54<sup>th</sup> Street in New York City, a popular and successful night club. The host of his own radio program, Mr. Lopez was well-known for his broadcast introduction, "Lopez speaking." Mr. Lopez used this introduction for some of his Brunswick records. An example is record #3368, "Lopez speaking....Thanks to Irving Berlin, 'I'm on My Way Home." The Lopez version of the very popular Rodgers and Hart tune, "Blue Skies," appeared on Brunswick record #3426.

While Brunswick never did produce the projected twenty-minute playing records, it did develop and produce records that would play twenty to fifty percent longer than ordinary



records. In April the first two were announced in the *Talking Machine World*, Tchaikovsky's "Marche Slave" played by the New York Philharmonic Orchestra under the direction of Wilhelm Mengelberg (#50072), and "Merrymakers' Carnival" by The Merrymakers, a male vocal ensemble (#20044). Starting in 1926, for most Brunswick and Vocalion records, the last two or three digits of the matrix numbers were pressed as small print into the shellac in the 12 o'clock area between the inner grooves and the record label.

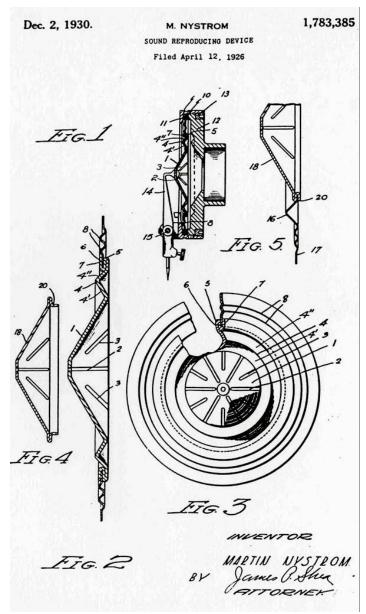
New York residents were able to purchase imported classical records at The Gramophone Shop at 47 East 47<sup>th</sup> Street



(between Park and Madison Avenue). The firm specialized in imported records. The Gramophone Shop advertised widely and produced catalogues and record supplements. They also sold records via mail and advertised, "Every record is carefully inspected and packed in substantial wooden boxes and insured against breakage."

The famous maestro, Arturo Toscanini, was greatly impressed when he first heard a Brunswick Panatrope. It was in March of 1926 when he conducted the first New York performance of Ottorino Respighi's "Pines of Rome." The third movement calls for a recording of a nightingale's song to be played against a light accompaniment of strings and harp. In order to reproduce the nightingale record at sufficient volume, the New York Philharmonic had acquired a Brunswick Panatrope. This is noteworthy since Toscanini only made records in America for the Victor Talking Machine Company and later its successor, RCA Victor. According to William A. Brophy, director of Brunswick's recording laboratory, "The

success which attended the performance of the instrument awakened in Mr. Toscanini the great possibilities which the Brunswick Panatrope had in influencing the future development of music. A visit to our laboratory gave Mr. Toscanini the opportunity of seeing and hearing a practical demonstration of the exclusive recording process now used by the Brunswick Company. He was so impressed with the method and results of the process that he expressed a desire to make records."(13) Toscanini's enthusiasm waned, however, when he actually made a recording. He disliked the crowded and confined conditions required when recording a four or five minute record. Only one 12-inch record resulted from his association with Brunswick, the *Nocturne* and *Scherzo* from Felix Mendelssohn's "Midsummer Night's Dream"(#50074). When the record was released it was well received and reviewed, but Toscanini did not seem to concur. When the New York Philharmonic was again recorded by Brunswick, it was conducted by someone else.(13)



#### The Acoustic Panatrope

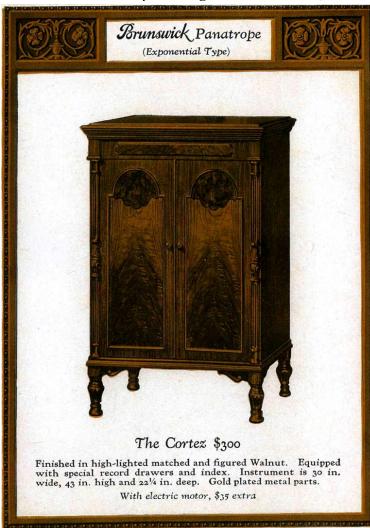
Since most of Brunswick's allelectric Panatrope models were expensive, in mid-1926 Brunswick introduced lower priced all-acoustic models designed to play the new electrically recorded records. Without the Western Electric license, Brunswick was not able to use the large re-entrant horn found in Victor's Orthophonic Credenza Victrola, however Brunswick's advertisements stated that the "New Brunswick Phonographs" were of the exponential type. In the April 15<sup>th</sup> *Talking Machine World* the first model was presented, "...a Consolette style of unusually attractive cabinet design, embodying new and improved reproducing features, to retail at \$115.00." It was shipped to some Brunswick dealers on April 15<sup>th</sup>. This model was eventually called the Seville. Then two console models, the Madrid and Valencia, were added, selling for \$165 and \$225 respectively. The Cortez "De Luxe" high-boy model, sold for \$300. For an extra \$25.00 these models were also available with an electric turntable motor.(164)

The newly-designed Brunswick mechanical reproducer was developed

for Brunswick by Martin Nystrom (U.S. patents #1,783,385, #1,783,386, and #1,783,926) and was similar to the Victor Orthophonic sound box, with notable differences.(261) The Brunswick reproducer's back plate is pot metal but the shell was zinc or brass and is heavier than the Orthophonic. The needle arm tapers towards the connection to the center of the diaphragm. The Brunswick aluminum or aluminum alloy diaphragm has a design with concentric pleats; it is 0.004 inch thick at the center to serve as the "piston" and the outer ring is 0.002 inch thick. Thus the diaphragm is two-piece. The overlapped portions of the piston and the outer ring are closely spot-welded. The center of the piston is cone shaped and has strengthening radial ribs pressed into the pattern. The diaphragm is heavier than the Orthophonic diaphragm, die-pressed rather than electro-plated, and does not have the spider attachment.

To gain publicity for the new acoustic Panatrope, Brunswick advertised in several leading national magazines and newspapers, including the September 11<sup>th</sup> issue of the *Saturday Evening* 

Post. Five thousand dollars in prizes were offered to name the "new musical instrument." (87) Anyone interested in submitting a name and slogan could contact their local dealer or write the company for a free booklet giving all the details; the contest was due to close December 15<sup>th</sup> at midnight. The slogan was not to exceed ten words. Many hundreds of suggestions were received. Prize winners were announced in April, 1927. The first prize of three thousand dollars was awarded to Mildred A. Bux of Melrose Park, Pennsylvania. The name she submitted was the "Prismatone" and the slogan, "The instrument of colorful music." (184) For a few weeks beginning in May, 1927, Brunswick advertised three Prismatone models in the *Talking Machine World* and the *Saturday Evening Post*: the Madrid, the Cortez, and the Cordova (a combination



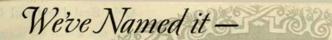
Prismatone and Radiola). However, and for unexplained reasons, by July of 1927 Brunswick discontinued the name and slogan and merely referred to each acoustic model as "the Brunswick Panatrope, Exponential Type." (88) The "Spanish" acoustic models proved to be popular with the public and had good sales. (168)

#### "Cortez" Model Acoustic Panatrope

The Cortez model is approximately the same size and shape as Victor's Orthophonic Credenza Victrola. The handsome Cortez cabinet is finely crafted of light stained walnut veneers. The lid is held open by two springaction lid supports. The tone arm, reproducer, and other exposed hardware are gold plated. The decal is located on the back panel behind the tone arm and is the usual "Brunswick" in gold script, but below in very tiny print is listed:

#### MADE IN USA PAT OFF AND CANADA MARCA REGTRDA MARCA IND REGTRDA NO 2184813 FEB 1923

The tone arm is fully supported at the base by a metal ring, which permits free horizontal movement. The tone arm has a broad "S" shape and is tapered; it is larger and heavier than the Victor tone arms. The base of the large end of the tone arm has the usual metal sleeve extending into the short wood tube leading to the internal horn. The reproducer has "Brunswick" stamped into the filigree pattern on the outside of the shell. The reproducer has a thin aluminum alloy



## BRUNSWICK PRISMATONE

"The Instrument of Colorful Music"



The Brunswick Prismatone, Madrid model, embodying the latest development in acoustical reproduction.



The Brunswick Prismatone, Cortez model. In the naturalness of its music, the Prismatone represents a great advance in sound reproduction



The Brunswick Prismatone and Radiola. The Cordona model combines in one cabinet the Prismatone with 6- or 8-tube Radiola Super-heterodyne

A<sup>S</sup> a result of the great nation-wide \$5,000 Prize Contest held last fall and winter, Brunswick's New Musical Instrument will from now on be called The Brunswick Prismatone, "The instrument of colorful music."

This winning name, first announced in Liberty Magazine on April 9th, is being presented to the public in full page ads in Liberty Magazine, May 7th issue, and in The Saturday Evening Post, June 11th issue.

Just as the prism reflects every color of the spectrum, so the Brunswick Prismatone reflects every delicate tone in music. Truly it is well called "the instrument of colorful music." Every Brunswick dealer will recognize the sales-advantage of the name Prismatone and of such a slogan.

The Brunswick Prismatone offers the public rich, realistic, satisfying music... the deep bass and high soprano which the phonograph failed to give... at low prices which put it within the reach of every home. It is outstanding in its field, just as the Brunswick Panatrope is pre-eminent as a reproducing instrument. The dealer who has the Brunswick Panatrope and the Brunswick Prismatone on his floor has the finest inventions in the field of music known to the world.

Brunswick

THE BRUNSWICK - BALKE - COLLENDER CO., GENERAL OFFICES: CHICAGO





The Madrid Finished in figured walnut. List price \$165 With electric motor, \$25 extra

#### The New Brunswick Phonograph



The Seville
Finished in mahogany or
walnut. List price \$115
With electric motor,
\$25 extra

AN outstanding achievement in mechanical reproducing instruments and a fitting companion-line to the new electrical reproducing musical instrument, the

#### Brunswick Panatrope and the Panatrope with Radiola

These two models are the first two instruments in this new line employing new acoustical principles of reproduction. Now on display at all Brunswick branches.



THE BRUNSWICK-BALKE-COLLENDER CO., General Offices: Chicago

diaphragm and is designed to play 78's only. The green felt-covered turntable is powered by a Model "C" Brunswick spring motor. Near the turntable at the front of the motor board is the traditional Brunswick gold plated medallion. Stamped into the medallion is "Cortez" and the serial number. The internal horn is large and bowl-shaped; the open end measures 17 <sup>3</sup>/<sub>4</sub> inches wide by 21 inches tall. The design is not exponential. The internal horn is the usual molded 3/16 inch thick holly or spruce wood with a light finish; it is beautiful to view but is hidden by the large cloth-covered grille. The frame of the grille is heavier and more ornate than the Credenza grille frame. The grille is convenient to remove—just two small pins at the bottom of the frame and two small wood screws at the top. At the base of the large horn are decals with gold print which state: Pat Dec 7 1912 No 1047789 and Sept 18 1923 No 1468166. The small inner section of the internal horn where it emerges into the large "bowl" is only seven inches wide and five inches tall. It emerges into the bowl about one-third of the distance from the bottom of the bowl; not in the center. Without a well-designed exponential internal horn, the sound waves, especially the longer bass waves, do not have ideal transmission and expansion. Still, the sound quality of the Cortez is amazing; one serious collector/listener estimates with a restored reproducer the Cortez model can attain approximately ninety percent of the sound quality of the best restored Victor Orthophonic Credenza and Victrola 8-30 models.

In February of 1926 Brunswick licensed the British Thomson-Houston Company, Ltd., to manufacture and sell Panatrope models in the United Kingdom. In April the first Light-Ray records were advertised in the United Kingdom. In July a new factory for pressing Brunswick records in London was nearing completion. In September British Brunswick, Ltd., was registered as a private company; W. Sinkler Darby was appointed Managing Director. The



General Manager was Count Anthony de Bosdari, a wealthy businessman. British Brunswick, Ltd., had a ten-year contract to manufacture and sell Brunswick records and Panatropes, taking over the contract from the Thomson-Houston Company.(30,43)

In March Jack Kapp was added to the list of Brunswick executives. Brunswick announced plans to create a race record division (the #1000 series), to be headed by Jack Kapp. He had worked for several years for the Columba Phonograph Company and had gained considerable experience in Chicago and the mid-West working with dealers and recording artists and was well-known in the industry. The new race records were planned for release in May and would be on the Vocalion label. Brunswick stated that the new race records would be above reproach insofar as the theme and manner

#### New Models of Panatrope-Radiolas Are Announced

Brunswick Co. Announces the Incorporation of Popular Model of Panatrope and Eight Tube Radiola Super-Het in One Cabinet

CHICAGO, ILL., October 5.—The Brunswick Co. has announced to the trade the combination in one cabinet of two instruments, which here-



tofore were available only as separate units. The instruments are the P-C (104) type Panatrope equipment and the Radiola Super-Heterodyne, with eight tubes, which have been incorporated in a single cabinet supplied in two models, operating from the alternating current light socket.

The new combinations are known as the Panatrope-Radiola 128C and the Panatrope-



Radiola 148C and are both finished in Adam brown and walnut. Both instruments are of attractive and artistic cabinet design and have gold-plated hardware. The Panatrope-Radiola 148C has cabinet work of varnished finish.

The announcement of these new models has proved exceedingly welcome to the trade, because of the insistent dealer demand for this specific combination caused by the popularity of the 104 type Panatrope, which has been one of the best sellers of the entire Panatrope line.

of presentation were concerned. Thus, Brunswick could advertise the new records as, "...better and cleaner race records." (165) Among the first releases were "Snag It" and "Too Bad" by King Oliver and His Dixie Syncopators (Vocalion #1007), who were playing nightly at the Plantation Café in Chicago. His was considered "jazz" in the fullest sense of the word and his Vocalion discs were electrically recorded. Also released were "Panama Limited Blues" and "Tia Juana Man" by Ada Brown (Vocalion #1009) and "Georgia Man" and "What a Man" by Teddy Peters (Vocalion #1006).

In April the new "Dixie" Brunswick records appeared (#100 series) for country and folk music. Labels of this series also featured a special lightning bolts design. The series started with records by Vernon Dalhart.

In June Brunswick introduced a new portable, the Model 102; it was listed for \$30.00 and came with blue, green, or black leatherette covering. The interior had "tea box" lining. The unit weighed only eleven pounds and had space in the lid to store several records. A new acoustic Panatrope model, the Valencia, was mentioned in the July *Talking Machine World* issue.(167)

In September the J. A. Fisher Company of Philadelphia, manufacturers of Valley Forge mainsprings and other talking machine parts, purchased from the Aeolian Company the remaining parts and supplies used to construct the Aeolian-Vocalion phonographs. It was no small purchase; it took three carloads to carry all the supplies to Philadelphia. J. A. Fisher estimated there were still over 100,000 Aeolian-Vocalion machines in the United States and he hoped to provide Vocalion owners with continued good service for maintenance and repairs.(169)

Also in September a new journal appeared, *The Phonograph Monthly Review*, published by the Phonograph Publishing Company of 101 Milk Street in Boston, Massachusetts. The Managing Editor was Axel B. Johnson. A yearly subscription cost \$3.00; single issues cost 25 cents. The journal specialized in appealing to a new type of record collector—the listener primarily interested in the symphonies, concertos, complete operas, and chamber music of the great masters. The journal

featured reviews of new record releases, especially for classical music. With the advent of electrically recorded records it was possible to adequately record full symphonic orchestras; it was no longer necessary to crowd a small orchestra around a recording horn. Orchestral works were on 12-inch records and came in handsome record albums, most containing three to six records. The journal also urged readers to form phonograph listening societies, "...to bring together persons interested in the better grade of music as represented by phonographic recordings, to provide opportunities for hearing and comparing new and unusual records of American and foreign origin, and to provide for discussions and occasional talks on matters of interest to the members." A few societies were formed in major U.S. cities, but never flourished as gramophone societies did in the United Kingdom. Monthly listings of newly-released records by the major U.S. and foreign record companies were included in the journal. Popular and jazz record releases were also listed and given brief reviews. The journal discontinued publication in 1932, a victim of the economic depression.



H. Emerson Yorke who, as announced in The World last month, heads the new publicity department created by the phonograph division of the Brunswick Co. to the end that the name Brunswick be kept constantly before the public.

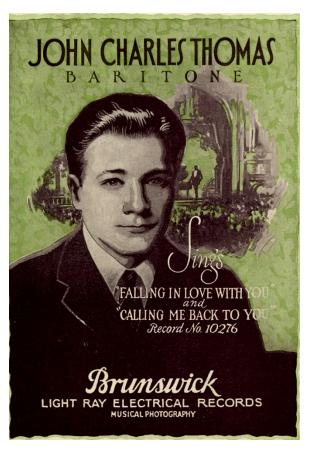
By October Brunswick was selling the Model P-1 Panatrope in communities with twenty-five cycle electric current; this model had a motor and amplifier designed to use this current. Buffalo, New York, was one such community.(173) In October Brunswick announced the first Panatrope-Radiola models, Model 128-C and Model 148-C. Both models came with the Radiola Super-Heterodyne with eight vacuum tubes and used standard alternating current.(172) H. Emerson Yorke was announced as the head of the new publicity department of the Brunswick phonograph division. The Columbia Phonograph Company finally advertised Viva-Tonal phonographs and records in the October 25<sup>th</sup> issue of the *Saturday Evening Post* with a two page advertisement; three Viva-Tonal models were illustrated. The new Viva-Tonal records were advertised as recorded by an electrical process. Columbia also announced it had purchased the Okeh-Odeon Record Division from the General Phonograph Corporation.(171)

Brunswick installed two "Super-Panatrope" units in the Globe Theatre in New York City to be used in Florenz Ziegfeld's elaborate Broadway show, "Reviews." For extra volume the two Panatropes were designed to operate simultaneously with duplicate records set in place at the exact same point with relation to the pickups and the turntables would revolve in "absolute step" to produce the same sounds. The Panatropes were used in various places during the live productions. (93,167)

In November Brunswick produced the first issue of a new house organ, "Brunswick Topics." It was prepared by the new publicity department headed by H. Emerson Yorke. In addition to listing current record releases and the latest Panatrope models, there are articles on the use of Panatrope models by noted personalities, such as boxer Jack Dempsey. Four permanent features were planned for each issue. "On The Air" was a column describing the activities of Brunswick artists in radio broadcasts and "Light Rays" was devoted to interviews

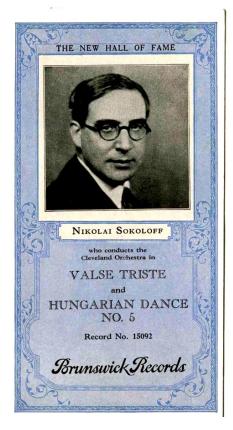
with and news about the artists. "The Letter Box" contained news of Brunswick products and "Music Makers of Melody Lane" gave sketches of the composers who wrote the words and music for the popular songs of the day.(174) Also in November Brunswick made an agreement for exclusive contracts with the Vitaphone Corporation to film and record several Brunswick artists. Vitaphone was making sound movie shorts; at that time there were two theatres in New York equipped with sound.(175)

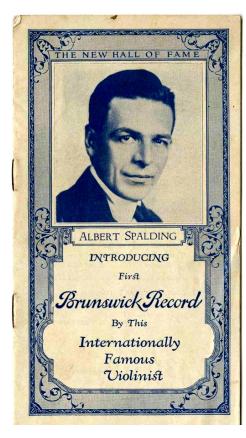
1926 proved to be one of Brunswick's best years for record sales—\$29 million.(12) In March the new "race" series was developed for Vocalion records (1000 series). In December Brunswick entered into contract with Polyphonwerke, Inc., and Deutsche Grammophon, Inc., (DGG) for interchange of record matrices, rights to use manufacturing patents, and plans of operation.(29,176) This enabled Brunswick to place on the American market outstanding performances recorded in Europe. Deutsche Grammophon used the Polydor label for exported records, but since some American shops already imported Polydor discs, Brunswick discs of the late 1920's pressed from DGG matrices do not use the Polydor label but instead state, "Recorded in Europe" on the label. L. L. Sebok, formerly with Columbia, began supervising Brunswick's foreign record division in January 1927. Deutsche Grammophon established a Brunswick label in 1926 and agreed to sell Brunswick phonograph and Panatrope models in Germany and Austria. Many alternate takes of recordings made for Vocalion in the United States were sold in Germany on the Brunswick label, including recordings by King Oliver. Later in the 1920's American Brunswick pressed records specifically for issue in Germany. These issues were often without vocal refrain.(30,64)



Also in December, the Baltimore, Maryland, public utility, the Consolidated Gas and Electric Light and Power Company, added the complete line of Brunswick records, phonographs, and Panatropes to its list of available products. This was the first public utility in any large city to merchandise musical instruments of this kind. The power company had one of the finest buildings in downtown Baltimore. A lavishly decorated showroom for the Brunswick line was made available. Several Consolidated salesmen took the Brunswick Panatrope salesman course. For opening ceremonies Ben Bernie and His Orchestra appeared at the department for three consecutive days.(177)

The National Broadcasting Company (NBC) was formed in 1926 with RCA holding a half-interest, General Electric thirty percent, and Westinghouse the balance. NBC introduced national network radio on November 15, 1926, with an estimated twelve million listeners.(4,170)





Nearly seven hundred radio stations crowded the airwaves by the end of 1926. Interference among stations was confusing and an aural nightmare. Even the larger, more powerful stations were not free from the interference of other stations. Early in 1927 the U.S. Congress passed a law establishing public ownership of the airways and established the Federal Radio Commission to license and regulate the airways. The

commission assigned individual frequencies on the radio dial, regulated wattage, prescribed hours of broadcast, scheduled public service features, and classified stations according to the size of the community they served.(28)

#### The Year 1927

The 1927 Brunswick records catalogue presents a description of the "Light-Ray" electrical recording process.(7) New to the 220 page catalogue were Franklyn Baur, Vernon Dalhart, Nick Lucas, Esther Walker, and Wendell Hall. Also listed were Harry Archer and His Orchestra, Frank Black and His Orchestra, Ben Bernie and His Hotel Roosevelt Orchestra, Jack Denny and His Orchestra, the Clevelanders, Ernie Golden and His Hotel McAlpin Orchestra, the A. and P. Gypsies, Jules Herbuveaux's Palmer House Victorians, Hal Kemp and His Orchestra,

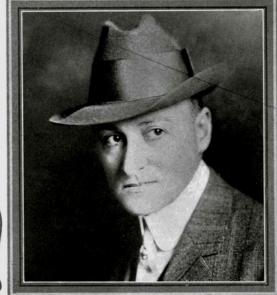


Ohman and Arden Pre-eminent Duo Piano Artists

Harold Leonard and His Waldorf-Astoria Orchestra, Victor Arden-Phil Ohman and Their Orchestra, Vincent Lopez and His Casa Lopez Orchestra, the Merrymakers, Ben Selvin and His Orchestra, Charley Straight and His Orchestra, and the Six Jumping Jacks (Harry Reser and His Band). Author Brian Rust reports that the Park Lane Orchestra was a pseudonym for Harry Reser and His Orchestra--with some recording sessions directed by Gus Haenschen. The Clevelanders was another Harry Reser pseudonym with later issues by Cab Calloway and His Orchestra. New to the "Hall of Fame" series were tenor Lauritz Melchior, contralto Marie Morrisey, violinist Albert Spalding, the New York String Quartet, the Metropolitan Opera House Orchestra conducted by Gennaro Papi, and the New York Philharmonic conducted by Wilhelm Mengelberg.

## "Newman Traveltalks" on Brunswick Records







E. M. NEWMAN

RACTICALLY everyone on occasion finds it necessary to know something of the historically famous points of interest in the great capitals of Europe. Discussions arise either in ordinary conversation, or thru inquiries of one's children who are studying facts about these important cities.

If you have traveled abroad, or are planning to do so, Brunswick Records of Newman's Taveltalks will be doubly interesting. However, many of us have never had the opportunity, and this is one of the reasons for the creation of these excellent records.

E. M. Newman, Traveler and Lecturer, has visited every corner of the globe. His famous Traveltalks are not only instructive, but highly interesting and entertaining as well.

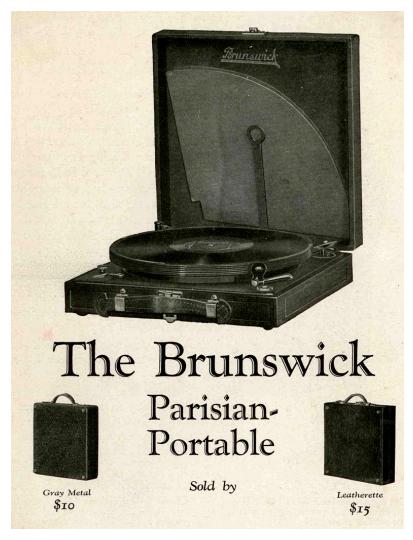
With this special series of Brunswick Records, you are now able to sit comfortably in your own home and have Mr. Newman relate for you, in his inimitable way, many wonders of the Old World.

Further, you are able to follow the great Traveler's talk, actually seeing the places of interest which he describes. You will note that the photographs shown in this book are arranged according to his record presentation. These photographs were taken specifically for this purpose, and have never before been published.

The first series of records by Mr. Newman covers the capitals of Europe. Other important topics will be recorded and publicly announced at a later date.

The 1927 Brunswick records catalogue includes a series of "Traveltalks" by E. M. Newman, a well-known travel lecturer. He recorded a series of seven records which were released under a special 80000 record number series. Each 12-inch record (both sides) is devoted to a famous European city. Booklets containing photographs of the leading points of interest in the various cities accompanied the records.(65)

In January Brunswick introduced a new acoustic portable Panatrope featuring the new reproducer with the aluminum diaphragm. The case was constructed of plywood and covered with blue or black Dupont Fabrikoid, making a handsome unit. Twenty records could be carried in the lid compartment. The new portable was not given a model name or number; it was listed at \$25.00 retail. Also in January Jack Kapp reported the remarkable sales of one record in one month—50,000 copies of the Vocalion record, "Some Day, Sweetheart" as recorded by King Oliver and His Dixie Syncopators on September 1, 1926, in Chicago (Vocalion #1059). It was a ten-year old tune. In the record a tuba is successfully recorded as a solo instrument and many Brunswick dealers reported this was an excellent record to demonstrate the new Brunswick Panatrope models. King Oliver and his band were playing nightly at the Plantation Days Café in Chicago.(178)



In February the Model P-14 all-electric Panatrope was introduced; it was housed in the same walnut cabinet as the Cortez acoustic model. Also in February Brunswick introduced the new "La Parisian" portable model. Not a Brunswick Company product, this unusual model was identical to the popular "Polly Parrot" portable model; it was made by the Allen-Hough Manufacturing Company of Milwaukee, Wisconsin. Instead of a traditional reproducer, tone arm, and internal horn, this model features a sliding tone arm with a coneshaped parchment diaphragm called an "oscillator" for playing records. The cone was designed to fold for storage in the lid. A separate non-folding oscillator was available for home use. Two models were made, one with a leatherette case for \$15.00; the other a figured metal case of dark mottled gray for \$10.00. Both



models were less than a foot square and only 2½ inches thick.(180) Also in February E. C. de Villaverde was appointed Assistant Manager of the foreign records department.(179) In March Brunswick introduced the new de luxe Panatrope with Radiola, Model 138-C; the super-heterodyne Radiola had eight vacuum tubes.(181)

Although Brunswick recorded such vaudeville blues singers as Lena Wilson and Rosa Henderson in 1923 and 1924, it did not have a race series on the Brunswick label until March of 1927. A special record number was assigned to these records—the 7000 series—and featured a special label with lightning "flashes" on each side of the Brunswick shield. Most of the records in this series were

blues vocals. The series was initially established and led by Jack Kapp, who was in charge of the Vocalion label and served as a talent scout and sales promoter for Brunswick. Although Brunswick did not participate, the week of March 20 to 26 was celebrated as Beethoven Week to mark the centennial of the death of Ludwig von Beethoven. Columbia, Victor, and Okeh released special classical recordings for the event. Okeh even announced the nine Beethoven symphonies; all were European recordings.(182)

An article in the April 15, 1927 issue of the *Talking Machine World* presents the success of the sales of the Panatrope models and the Light-Ray records. Profits for the year 1926





amounted to \$2,553,809.79, a remarkable gain for the Brunswick Company's music division from the losses of 1925. To provide continual background music in theaters and other public places, Panatrope models with two turntables were made available.

The April issue of *Brunswick Topics* announced the opening of new and beautiful display rooms for the Brunswick Panatrope and Prismatone models in Atlantic City, New Jersey, on the corner of Indiana Avenue and Boardwalk. There visitors could hear the Panatrope and Prismatone amid luxurious surroundings. The facility had a main auditorium where recitals were given afternoons and evenings. This was not a Brunswick dealer; visitors were urged to go to

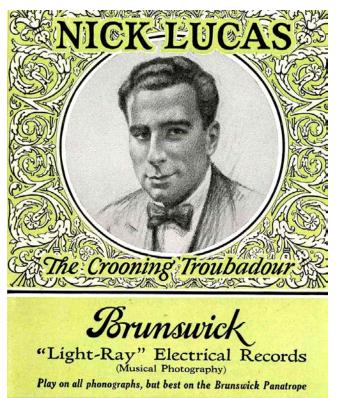


their own local Brunswick dealers for purchasing Panatrope and Prismatone models and Brunswick records.(186) An advertisement in the May, 1927 issue of the *American* Magazine proudly declared, "Now a New Triumph In Music and Radio. The famous Brunswick Panatrope combined in one beautiful cabinet with the 9-tube Radiola Super-Heterodyne." In June cabaret singer Helen Morgan made her first Brunswick records—in the 100 series.



In May the *Talking Machine World* reported that the Brunswick Panatrope met with considerable favor among the Windsor royal family in England. King George V had a Panatrope, the Duke of York owned two models, and the popular Prince of Wales had three! It was the Prince who first discovered the Panatrope and introduced his family to its new and special sound reproducing abilities. Also in May, after considerable experimentation, Brunswick was able to record the great Kimball Organ at the Roxy Theatre in New York City. This new organ was the largest built by the W. W. Kimball Company in Chicago. The recording of "Honolulu Moon" and Irving Berlin's "Blue Skies" (#3488) featured Lew White at the organ.

The fidelity of the recording was impressive. The great organ had three consoles with fourteen sets of keys with over seven hundred stops; the organ was capable of remarkable special effects.(185)



In June pianist Josef Hoffman was appointed head of the Curtis Institute of Music in Philadelphia.(187) Brunswick had issued over 300 electrically-cut records in its popular series before indicating on some labels that a "Light-Ray" method was used. For much of 1927 Brunswick record labels stated "Light-Ray Elec. Rec." while "Light-Ray Electrical Recording" is found on a few labels, no abbreviations were used. Two typefaces are found on labels in this period, which suggests that Brunswick's two pressing plants were responsible for their own labels.

Brunswick's Light-Ray recording process did not prove to have the quality and adaptability of the Western Electric microphone method used by Victor and Columbia. The sound quality tended to vary and was often thin. Brunswick's affiliate, Deutsche Grammophon in Germany, used

the Light-Ray method early in 1926 when Richard Strauss recorded Beethoven's Symphony No.

#### A musical invention that has thrilled the world



The Brunswick Panatrope . . . electricity harnessed to bring you the finest music the world has ever known . . .

Joint achievement of Radio Corporation of America, General Electric Co., Westinghouse Electric & Mfg. Co., and The Brunswick-Balke-Collender Co.



The Brunswick Panatrope, Model P-13. Cabinet in walnut with curly maple over-lays. Operates entirely from the light socket.

UST as the electric light, the telephone . . . electricity of tone the Brunswick Panatrope achieves musical results

so vastly beyond anything the world has known is the music of the Panatrope that early demonstrations of this instrument in New York City, and at public gatherings the country over, met with an enthusiasm probably never accorded any other instrument.

itself... were in their day amazing revelations, so now in music a new principle of reproduction... the electrical... brings results which change all one's conceptions of musical tone and beauty.

So vastly beyond anything the world has known is the music of the Panatrope that early demonstrations of this instrument in New York City, and at public exploritions the converte over mere with an enquision of the Panatrope and Radiola Super-heterodyne.

probably never accorded any other instrument.

The Brunswick Panatrope is an instrument for the home.

Its music may be modulated to a whisper or amplified to fill an auditorium. Always in naturalness and beauty

Brunswick Mich. P. The Brunswick Panatrope with Radiola. Otherwise what you buy today, no matter how impressive it may seem, may fall obsolete tomorrow before this amazing invention.

Brunswick's "Light-Ray" electrical recording (musical photography) is a remarkable development whereby the entire musical scale is recorded naturally. Brunswick Records by this new method make your phonograph sound like a different instrument. And on the Brunswick Panatrope the results surpass belief. New records out every Thursday.

#### THE Brunswick PANATROPE

THE BRUNSWICK-BALKE-COLLENDER CO., GENERAL OFFICES: 623-633 SOUTH WABASH AVENUE, CHICAGO

7 with the Berlin Staatskepelle. The sound quality was disappointing, however. Within a year Brunswick had adopted the more stable Western Electric microphone method and in early 1927 Strauss re-recorded the symphony using the improved process.(47) The actual date of the change-over is not known, but the last Light-Ray records were advertised in the September 3<sup>rd</sup> issue of the *Saturday Evening Post*.(89) Brunswick advertisements in the August 15th issue of the *Talking Machine World* no longer mention Light-Ray records.

#### The Sonora Raid

In 1926 several prominent business and financial leaders decided to enter the rapidly expanding radio market. Such names as John Hays Hammond, eminent engineer and metallurgist who had served on the RCA board, Ogden Mills, prominent financier, Louis Kaufman, head of the Chatham and Phenix National Bank, James J. Burden, steel magnate, E. F. Hutton, head of the famous investment firm, Harris Hammond, son of John Hays Hammond and a leader in the oil industry, and Anthony J. Drexel Biddle, Jr., financier, were major stockholders in the Bidhamson Company, which was a patent holding firm. The Bidhamson Company joined the Premier Laboratories, a well-known research and scientific organization which held vital patents in radio, electric recording, and loud speakers, to form the Acoustics Products Company, Inc. Acoustic Products then purchased controlling interest in the Sonora Phonograph Company, Inc., which had main offices at Fifth Avenue and 53<sup>rd</sup> Street in New York City. This was accomplished through exchanges of stock, share for share, common and preferred. All stock exchanges were in-house; none were offered to the public. With this very large investment of capital, Sonora was no longer a small company struggling for survival. It was now a major player in the phonograph and radio industry with an active research and development program as well as aggressive sales promotions.

BENNIE-KRUEGER

ORCHESTRA DIRECTOR

Saxophonecsoloist

"Light-Ray" Electrical Records

(Musical Photography)

Play on all phonographs, but best on the Brunswick Panatrope

Under the Sonora name, Acoustic Products planned many new and farreaching projects. Expanded research into new products was placed under the charge of Dr. Miller Hutchinson, who had led the Premier Laboratories and was an authority on acoustical engineering. Earlier he had for ten years been chief engineer of Thomas A. Edison, Inc. On August 7<sup>th</sup> the Acoustic Products Company was incorporated in the state of Delaware; the company would be responsible for manufacturing the machines to be sold by Sonora. Acoustic Products also obtained the license from the Jenkins Television Corporation for the manufacture of television receiving sets under the latter company's patents.(29) In 1928 the Sonora Radio Corporation and the Sonora Piano Company were formed. In order for



Charley Straight

This young artist and his well known Chicago orchestra are recent additions to the Brunswick list of leading musical organizations. He is booked for the summer at Hotel Meuhlebach, Kansas, City.

Acoustics Products to develop and market the new Sonora phonographs and radios, it would be necessary to secure the best executive talent possible. This would also encourage new financial investors. With considerable funds at their discretion, Acoustic Products hired three of Brunswick's most important executives.

The June 15, 1927 issue of the *Talking Machine World* reported that Percy L. Deutsch had resigned his position as vice-president and director for the

Brunswick-Balke-Collender Company. The October 15th issue then featured a long article which announced Mr. Deutsch as the new president of the Acoustic Products Company and the Sonora Phonograph Company. This was a major event in the phonograph industry. Mr. Deutsch, who was the grandson of John M. Brunswick, had for two decades worked for the Brunswick-Balke-Collender Company and was one of the foremost figures in the phonograph industry. He was in large measure responsible for the success of Brunswick phonographs and records and for developing the electric Panatrope and placing it before the public.

Mr. Deutsch brought with him A. J. Kendrick, who had for many years been General Sales Manager of the music division of the Brunswick Company. He was appointed General Sales Manager of the Sonora Phonograph Company. Also, Walter G. Haenschen, who had been involved with recording activities at Brunswick and led the Carl Fenton Orchestra, was hired to be Recording Director of the new Sonora recording laboratories in New York City. Mr. Deutsch announced plans to produce a Sonora record and greatly improved electrical reproducing instruments for both home and auditorium use. To advertise their new phonograph and radio models during 1928 and 1929, Sonora placed bold Art Deco advertisements in magazines and newspapers.(188,190)

The July 15<sup>th</sup> *Talking Machine World* announced that R. W. Jackson, who had been general sales manager of the billiard and bowling division of the Brunswick-Balke-Collender Company, was appointed general sales manager of the music division, succeeding A. J. Kendrick. Jackson had worked for the Brunswick Company since 1903 when he worked as an office boy in the Minnesota office.(189)

In July, 1927 British Brunswick, Ltd., released its first records by British artists. In August, the last Brunswick records issued by the Chappell Piano Company were advertised in the United Kingdom. In November British Brunswick, Ltd., was listed as a public company; American Brunswick purchased half of the 200,000 preferred shares.(30,43) In August the phonograph and record industry celebrated the 50<sup>th</sup> anniversary of the invention of the phonograph by Thomas A. Edison in late 1877. It was celebrated in newspapers and journals as the "Golden Jubilee" of the Edison phonograph.

Among the most unusual records listed in the 1927 Brunswick records catalogue were



made by Harry M. Snodgrass, the "King of the Ivories." Harry Snodgrass became famous while he was in the state prison in Jefferson City, Missouri.(53,54,55) He was sentenced to a three-year term for assault with intent to rob, although one report indicated he was actually sentenced as an accomplice to a murder. In prison he played piano with a jazz band consisting of inmates. At a set time each week the band broadcast over radio station WOS. The broadcasts were very popular and Harry Snodgrass became such a celebrity that a large volume of telegrams and mail as well as numerous gifts were sent to the young piano player. Harry Snodgrass was discharged on January 16, 1925. Within a month he was working at Station WOS in Jefferson City and a

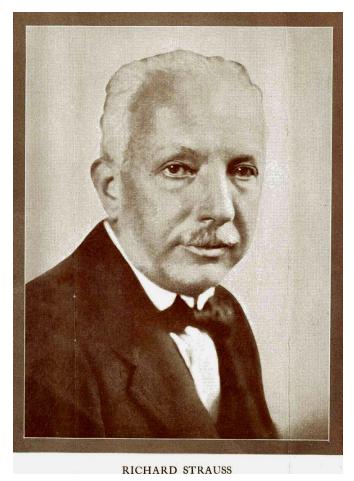
recording session at Brunswick soon followed. The records are unusual in that most feature a spoken introduction by J.M. Witten of the Jefferson City Station. The introductions are slowly and distinctly pronounced. The 1927 catalogue lists ten sides by Harry Snodgrass, several were waltzes. He even composed a number of waltzes, including, "Along Miami Shore" and "The Moonlight, A Waltz, and You." He also wrote a "radio" hit, "On The Air." Harry Snodgrass also cut ten piano rolls for QRS and traveled and performed with the Orpheum Circuit for a few years; he played piano by ear.

In April the Columbia Phonographic Manufacturing Company purchased the United Independent Broadcasters Network. In September the Columbia Company announced the formation of a new radio network, the Columbia Phonographic Broadcasting System. The system included sixteen Eastern and mid-West radio stations with more to be added later. It would occupy the thirtieth floor of the Paramount Building in New York City. Broadcasting was to commence on Sunday, September 4<sup>th</sup>. The key radio station was WOR in Newark, New



Jersey.(66) Due to the lack of advertisers, however, Columbia sold the network for \$500,000 to a group led by twenty-seven year old William S. Paley on September 25, 1927. Paley then formed the Columbia Broadcasting System which had no connection with the phonograph business.(4)

In October Brunswick introduced the "New Hall of Fame Symphony Series." These complete symphonic and classical works were recorded in Europe. The sets usually contained three to six of the 12-inch records per album. The albums had artificial leather covers and each contained an explanatory booklet in



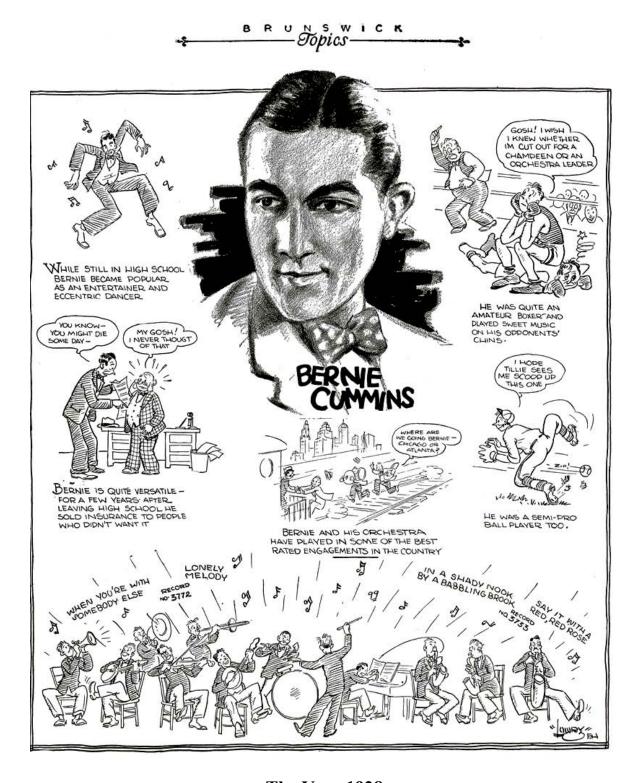
which the composition was described. Album #1 featured, "Ein Heldenleben" (A hero's Life) by Richard Strauss played by the Berlin State Opera Orchestra and conducted by the composer. Album #2 was Beethoven's Symphony No. 5, played by the Philharmonic Orchestra of Berlin, conducted by Wilhelm Furtwaengler. Richard Strauss and the Berlin State Opera Orchestra were also featured on album #3, Beethoven's Symphony No. 7, album #4, a series of operatic waltzes, and album #5, Mozart's Symphony No. 41.(192) Also in October Brunswick introduced the new Model 14-7 acoustic Panatrope; it featured a walnut cabinet and sold for \$160.00 retail.(191)

Until late 1927 when Brunswick established a Los Angeles recording studio, Brunswick used portable electronic recording equipment for recording West Coast artists. A "LAE" prefix was used before the matrix numbers for these records. In October the Sherman, Clay and Company added the Brunswick line to its chain of forty West Coast stores; it was

one of the largest music houses in the country. Sherman, Clay and Company said of Brunswick, "...by their merit they have won this music house." (193)

At the end of 1927 the Brunswick Company owned 45,000 acres of land in Marquette County, Michigan, continuous to its own railroad of about forty miles of main line and branches. On this land 26,000 acres carried virgin hardwood, pine, and hemlock estimated at 210,000,000 feet of merchantable timber. The Lake Independence Lumber Company was located at Big Bay, Michigan. Brunswick established a subsidiary in Brazil, Companhia Brunswick de Brazil.(29)

In December Brunswick announced that all 10-inch Brunswick records would sell for 75 cents; 12-inch for \$1.00. This was done to help the listening public better appreciate all classes of music including the semi-classic compositions and the symphonic and operatic works of the old masters. This was major news to collectors of classical and semi-classical records; most record companies had the base price of \$1.50 to \$2.00 for classical 12-inch records.(194) For the first time records by first rate concert and operatic artists were available for a popular price. Despite the technical advances and the remarkable list of artists on the Brunswick label, record sales dropped in 1927 to \$27 million. Labels on the Brunswick records were reduced to a three-inch size.(67)



The Year 1928

The January, 1928, Brunswick records catalogue had 196 pages. Page four announces the correct speed for Brunswick records was now set at 78 rpm, instead of the 80 rpm stated in earlier catalogues and on Brunswick record sleeves. New Brunswick artists were, Johnny

Dodds and Lee Sims. Also new were the Anglo-Persians, Bernie Cummins and His Orchestra, Duke Ellington's Kentucky Club Orchestra, Elgar's Creole Orchestra, Fletcher Henderson and His Orchestra, Al Hopkins and His Buckle Busters, Red Nichols and His Five Pennies, the Regent Club Orchestra, "Kenn" Sisson and His Orchestra, the Washingtonians, the Wolverines, and the Yacht Club Boys.

In 1928 Brunswick began to manufacture and sell radios. Radio sets were produced in cooperation with the Radio Corporation of America, General Electric, and Westinghouse and Electric Manufacturing Company.(199) The popular Brunswick 5WO radio featured a separate speaker and an RCA 60 chassis.(37) The Model 5KR Brunswick radio sold for \$95.00 (without tubes) and was available, "...at convenient terms." In January William (Bill) Wirges was appointed Brunswick's Director of Recording Laboratories. To help boost sales, the prices for all Panatrope models were reduced. In March the *Talking Machine World* reported that William A. Brophy, Manager of the Brunswick Recording laboratory in New York City, had resigned. He was replaced by Frank S. Horning. Mr. Horning had been sales manager for the Sampson Electric Company in Chicago, an Atwater Kent radio jobber with wide experience in the music field.(68)

Also in January Brunswick introduced the new small all-electric Panatrope model, the PR17-8; it came with the Radiola 17.(195) In February Husk O'Hare and His Stage Band were recording for the Vocalion label. In February Brunswick lowered the prices for the Model P-11 Panatrope to \$550, the Model P-14 to \$365, and the acoustic Valencia model to \$175.(196) Brunswick was again manufacturing water closet seats. Now called the "Brunswick White Seat," it was made of alternating-grain layers of hardwood with a hard sanitary white surface.(57)

In 1928 the Brunswick Hour of Music was broadcast from WGN in Chicago every Wednesday evening at 8:00 p.m. In addition to a varied program by the Brunswick House Orchestra, Brunswick artists, such as Ben Bernie, Nick Lucas, Al Jolson, Lee Sims, and Vincent Lopez were featured when they were in the Chicago area. It was the usual practice for these artists to present their latest tune just being released on Brunswick or Vocalion records.(197)

After April 1<sup>st</sup> Brunswick and Vocalion records used a single matrix number for each title with a letter suffix to indicate take number, which was standard for most record companies. With a few exceptions the matrix numbers were not pressed into the shellac. In May a new \$25.00 portable Brunswick model was introduced, the Model 106; it featured an unusually large internal horn and came with blue or black leatherette.(198) In July a small console acoustic Panatrope was introduced—the Model 15-8—priced for only \$150.00.(200) In April Vincent Lopez renewed his two-year contract with Brunswick. The details were presented in the May 16<sup>th</sup> issue of *Variety*. Lopez was to receive three cents royalty for every 10-inch record sold and four cents for every 12-inch record sold. Lopez was also guaranteed \$1,000 for each recording during the first year and \$2,000 for each recording during the second year.(244)

Al Jolson's recording of "Sonny Boy" (#4033) was recorded on August 20<sup>th</sup> in Los Angeles. It was one of Jolson's songs from the Vitaphone movie, "The Singing Fool." Jack Kapp, Brunswick's manager of recording laboratories, was on the West Coast at the time and

brought Jolson to make the recording.(201) The record proved very popular; Brunswick kept a factory running twenty-four hours a day to meet the public demand. It sold over a million copies and was one of the company's best-selling discs of the 1920's. Page 127 of Larry F. Kiner and Philip R. Evans' *Al Jolson: A bio-Discography* (Scarecrow Press, 1992) reports that when Jolson asked for a royalties statement in 1930, the list of sales showed "Sonny Boy" had sold 938,466 copies in the U.S., earning Jolson over \$70,000 in royalties. Jolson had called himself "the world's greatest entertainer" since the World War I era. The success of the record advanced Jack Kapp to manager of the entire Brunswick records catalogue.(12,61) By December Brunswick was giving away a free portrait of Al Jolson with every purchase of the "Sonny Boy" record.(202)

In the United Kingdom British Brunswick entered into an agreement with the Duophone and Unbreakable Record Company, Ltd. The two companies pooled their manufacturing and sales facilities. Plans were also made for marketing a popular-priced Panatrope. A number of Brunswick recordings were released on the Duophone label which had been made for the U.S. market but were never issued in the States. These included records by Red Nichols.(30,43)

Brunswick's records of country and folk music were selling well and Brunswick produced a small newsletter called the "Brunswick Record Edition of American Folk Songs." The first issue was dated October 23, 1928 and contained short articles on the All Star Entertainers, Caplinger's Cumberland Mountain Entertainers, Doc Bates and His Possum Hunters, the Flat Creek Sacred Singers, Ron Harvey and His Ramblers, Buell Kazee, the Kessinger Brothers, Bascom Lunsford (the Minstrel of the Appalachians), the McCravy Brothers, blind artists McFarland and Gardner, and the Tennessee Ramblers. The Brunswick records by each were also listed. A short folk song history was included. The Brunswick Company claimed that in its desire to obtain a collection of original American folk songs, new electrical recording apparatus were sent to the mountains of the South, "...where it recorded the best of them on imperishable discs which will gain in value with the passing years." (40) In late 1928 Brunswick also recorded Alabama's most famous fiddler, Charlie Stripling.



In late 1928 Al Jolson negotiated a new recording contract with Brunswick; it guaranteed him a yearly minimum payment of \$30,000 plus ten percent of all his record sales.(1) The November 15<sup>th</sup> *Talking Machine World* issue contained thirty-two advertisements for different radio brands; many were full-page advertisements on heavy stock paper. Only twenty-two phonograph brands advertised in the journal and nine of these were for portable models.

In 1928 Brunswick dropped the "A" and "B" designations on record labels, instead underlining the record number of the non-preferred side. In 1928 Brunswick joined with National Radio Advertising, Inc., of Chicago to

#### RECORD EDI

OF AMERICAN FOLK SONGS



BRUNSWICK RECORDS. PANATROPES AND RADIO RECEIVERS



#### FOLK SONG HISTORY

#### Tennessee Mountaineers Give Birth to Only True American **Folk Songs**

All music started with the natural desire to express varying emotions. Probably the first love song was sung by a bird at mating time . . the first lullaby, the song of the mother bird. When we are happy we whistle or sing at our work. Most of us whistle or sing at our work. Most of us whistle or sing songs made familiar through repeated hearings, but before the phonograph and radio made it possible to hear "composed music" as frequently as we can today, people used to make up original tunes of their own and fit them with their own words. These simple songs, invented by the people, were called Folk Songs. They were generally written to celebrate some occasion . a wedding . . a death . . a birth, a victorious battle or a defeat . . a current or historic event. Minstrels would travel about the country singing these songs of their native land, which, before the invention of the printing press, were about the only means of dispensing news. "Comin' Thro' the Rye" is a typical Folk Song and tells of the ancient custom of the young men of Sotland, who were privileged to exact a kiss for carrying a maiden dry shod over the River Rye.

#### . . .

The only True American Folk Songs . . . considering the definition of a Folk Song as a freely composed song of the people relating current happenings of importance, without any particular regard to a set musical form, are the songs of the Southern Mountaineers. Like the minstrels of old, the modern Bards of our southern mountains go about singing the simple songs of the people's own making . relating the gruesome details of a local murder . . the latest scandal of the community . the horror of a train wreck . . . the sorrow of unrequited love, etc. The simplest of accompaniments are used, generally a guitar, a fiddle, a banjo or a harmonica and the voices of the singers are untrained except in the school of "singing songs."

Desiring to obtain a collection of these Original American Folk Songs, the Brunswick Company sent its newly developed electrical recording apparatus down into the mountains of the South, where it recorded the best of them on imperishable discs which will gain in value with the passing years. These records are made by local artists of prominence to whom these songs are the most serious things in all music . . . however droll they may sound to the unitiated. Harvard University has a valued collection of the original manuscripts of many of these Dixie Songs recorded by Brunswick, showing the historic value of them in the eyes of the foremost institution of learning in America.



McCravy Brothers

Every record by the McCravy Brothers is a "gem". . . . sung with that simplicity and sincerity, which is only found today in the small towns where folks still attend "meetings" for the good of the soul, and not just to show off a new hat.

Engaged in Evangelistic work throughout the South, the McCravy boys are widely known and beloved by the people. Their voices blend beautifully, one brother carrying the tenor against the other's baritone, and their diction is perfect, every word being distinctly pronounced.

Their recording of "Will The Circle Be Unbroken?," Brunswick Record No. 194, is one of the most popular of all the sacred records available in America. Of their secular recordings, "Mandy Lee," Record No. 198, is to be especially recommended. The introduction of "The Wedding March," from Lohengrin, played by the orchestra between verses with chime effects, is very appropriate and very beautiful. Hear it by all means, and when you turn the record, you will find another treat in store for you—"The Trail of the Lonesome Pine."



The Ten

#### **GIRL PLAYS GUITAR** WITH HER FEET

WITH HER FEET

Ladies and what you brought with you: Right this way for the Girl Guitar-Playing wonder of the world. Plays with the Guitar held behind her—plays the instrument with her feet. Right this way to hear Willie Seivers—Champion Woman Guitarist of the World. Willie challenges any woman guitarist to open contest—the winner to have possession of the Gold Medal now held by Willie. The Tennessee Ramblers, furthermore challenge any four-string band to open contest for World's Championship. We advise any band seriously considering taking up this challenge to first hear Record No. 257, a real fiddlers' contest in which each player does a solo stunt. Tune in on Radio Station WNOX, Knoxville, Tenn., some night and hear this band which is a regular program feature on this station.

#### BLIND MUSICIANS

#### Still Get a Kick Out Of Life And American Folk Songs

The loss of sight has not seemingly placed a serious handicap on McFarland and Gardner. Comrades since their boyhood school days, they go about the country singing and playing . . . prime favorites at a country dance, a prayer meeting or a Social Party. Their record of that old Civil War Song, "When the Roses Bloom Again,"



McFarland and Gardne

record No. 111, is selling like proverbial "hot cakes," people in Chicago alone buying 25,000 copies of this record. McFarland and Gardner best selling records

McFarland and Gardner Descarding
to date are:
160
1 Will Sing of My Redeemer
When Our Lord Shall Come Again
169 The Bright Sherman Valley
The East Bound Train
190 The Old Rugged Cross
Rock of Ages
199 Seeing Nellie Home
Weeping Willow Tree
202 The Two Orphans
You'll Never Miss Your Mother
Till She's Gone
203 The Drunkard's Dream
May I Sleep In Your Barn
Tonight, Mister?

#### Blind Couple Earn Money as Singers

Money as Singers

John B. Evans was born blind. After
graduating from the School for the Blind
in Ronney he tried to make a living selling
papers. Failing to make both ends meet at
this work he took the advice of a friend and
learned to play the guitar. He is a popular
idel of the townsfolk now who gather around
him on street corners and listen to his singing
of the old southern songs. Often Evans is
accompanied by his wife who is partially
blind and whose pleasing soprano voice
blends prettily with her husband's. The
contract signed with the Brunswick Company to make records came as a real boon to
these blind musicians.

John Evans' first Brunswick Record is No.
237 Three Nights' Experience
The Kicking Mule



McFarland and Gardner all dressed up and no place to go, so they visit the photographer. Maybe their smiles reflect their joy at the way their latest record, "I Love You Best of All" and "On the Road to Happiness" (No. 339) is being received.





Al Hopkins and one of his brothers all ready to cut loose on a little Buckle Busting. Ask for their latest, "Wild Hoss" and "Medley of Old-Time Dance Tunes" (Record No. 335).



Witness a living reproduction of Sir Thomas Lipton's well-worn slogan, "The Cup That Cheers." The Kanawha Singers, however, need no liquid encouragement, judging from their latest, "De Camptown Races" and "Keep In De Middle Of De Road" (No. 337).

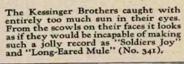




Uncle Dave Macon's gone traveling. Let him tell you of his "Misery in Arkansas" in "Uncle Dave's Travels" (Part One) Record No. 340.



Here is Frank McCravy and brother James caught in a very fraternal pose. Just as close as their apparent regard for each other is their harmony in "The Bird With the Broken Pinion" and "The Vacant Chair (No. 4455).







Buell Kazee comes up from the Cumberland country and recreates his impressions of the way he acted when he made his first Brunswick Record. Be sure to hear "A Mountain Boy Makes His First Record" (No. 338).



COMPARABLE to the folk songs of Europe, which, since medieval days, have been passed down from generation to generation through the agency of the traveling minstrels, are the so-called "hill billy" songs of the southern mountain country. With no counterpart in any other section of the country, songs such as those listed on this page represent the most individual and still the most typical American folk music.

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Ten



press recorded programs to be sent to radio stations for broadcasting.(265) National Radio called their new quality programs by the trade mark, "So-a-Tone." Programs were designed for specific advertisers and included commercial messages. National Radio helped equip radio stations with apparatus for reproducing the recordings properly and supplied programs to keep the equipment in constant use. Gradually, syndicated programs developed into an important part of the broadcasting industry. The single-sided 12inch Brunswick discs were recorded and pressed in the normal way and had matrix numbers in Brunswick's XE30000 series. They came with white labels, many with "So-a-Tone" in large script letters. The series title,

program number, part number, and record matrix usually appeared in small black print along with the legends, "Nat. Radio Adv. Co." and "Made in USA."

# B R U N S W I C K Sobjects Vol.III No. 11 Petite Star of The Control of the

#### The Year 1929

Some editions of the January 1929 Brunswick records catalogue have 131 pages while others have 124 pages. All records listed were now electrically recorded except for the last seven pages of the catalogue which listed older mechanically recorded discs. These acoustic records would not be available after December 31, 1930. A special section lists fourteen album sets. most symphonic recordings from German masters. Organists Eddie Dunstedter and Lew White were new to the Brunswick catalogue as well as popular vocalists Vaughn De Leath and Chester Gaylord. New to the New Hall of Fame series were soprano Jessica Dragonette. pianist Ignace Hilsberg, violinist Godfrey Ludlow, soprano Grace Moore, the New York String Quartet, soprano Rosa Raisa, and Baritone Giacomo Rimini.



Starting in January, the name of the *Talking Machine World* was changed to the *Talking Machine World and Radio-Music Merchant* (TMW-RMM). Throughout the 1920's developments in radio technology and advertisements by many radio companies appeared in the journal. Radio technology advancements from early radiotelephony to the screen-grid vacuum tubes and electrodynamic speakers were duly reported and advertised.

Since March of 1927 Brunswick had been recording a series of special records for radio broadcasting. Called the "Mood Accompaniment Library", these 10 and 12-inch records were labeled 1L to 499L; production ended in January, 1929. The records were non-vocal instrumental recordings and had the same recording on both sides in case one side would become damaged. No artist credits were printed on the labels. Records 389L to 408L were sound

effects records—bugle, church bells, clock striking, drums, fire engines, galloping horses, locomotive, steamboat, thunder, wind, etc.

In January Louis Katzman was named new Recording Manager for the New York and Chicago Laboratories. An elegant Brunswick Panatrope with Radiola (Model 3NW8) was introduced; it had the new type dynamic speaker, automatic volume control, and a needle meter for accurate tuning.(203) In February the format for "Brunswick Topics" was changed to a larger size in two colors and consisted of sixteen pages. Also in February a new portable Brunswick Panatrope, the Model 108, was announced in the TMW-RMM; it had a metal case with padded coverings of tan leatherette. Inside the lid was space for carrying records; retail price was listed at \$35.00. In the February 11<sup>th</sup> issue of the *Chicago Tribune* the Wesco Music House at 1022 Wilson Avenue in Chicago advertised various Brunswick Panatrope and Panatrope with Radiola models at 20 to 60 percent discounts. In March Brunswick also announced general price reductions for the Panatrope models. In April, Brunswick purchased the business and assets of the Bremer Tully Manufacturing Company, manufacturers of radio receiving sets and equipment.

Also in April an unusual record appeared in the "novelty" class—record # 4100—"A Night at Coffee Dan's" with Frank Shaw as Master of Ceremonies. Brunswick listed this disc as "...the most commercial record ever recorded." Coffee Dan's was a night club in San Francisco with a national reputation. The record is loud and, "Shaw's humor is of the rough and ready, knock 'em down and drag 'em out style, but some of it is very funny indeed, and while the disc is perhaps not to be recommended for Sunday School picnics, it is good for much honest side-shaking laughter." (69) This record was advertised in the March 25th issue of the *Saturday Evening Post*; it was the last Brunswick advertisement in the *Post* until September, 1930. Some scenes from Al Jolson's historic early part-sound movie, *The Jazz Singer* (1927, Warner Brothers Pictures, Inc., using the Vitaphone sound-on-film disc system) were filmed at Coffee Dan's. In the scenes Al Jolson was featured as the singing waiter in a beer hall; he sings "Dirty Hands, Dirty Face" and "Toot, Toot, Tootsie." Also that year Warners produced another movie at



I night at

Frank Shaw, Master of Ceremonies, assisted by Les Poe, Pianist, bring an evening's entertainment from this bohemian rendezvous.

EVERY Brunswick dealer who has heard this remarkable record prophesies big things for it. It is without question one of the most unusual novelties ever offered.

. All tourists visiting 'Frisco go to Coffee Dan's. This restaurant has a national reputation. Here gather stage folk, movie stars, concert artists, celebrities of various kinds. You will remember the cafe scenes in "The Jazz Singer" where Al Jolson makes a hit as the singing waiter. These scenes were made at Coffee Dan's.

Now, on a record, Brunswick brings Coffee Dan's "to the life." In come the "big shots" from Little Rock, Pittsburgh and other towns. Then the fun begins. By all means play this wonderful Brunswick Record to every customer who enters your store. We have display material for your window. Ask your Branch. The record number is 4100.

## Coffee Dan's"

Another Big Sales-Maker for the Brunswick Dealer

Porunswick
Panatropes · Radio · Records · Panatrope-Radiolas

THE BRUNSWICK-BALKE-COLLENDER CO., CHICAGO · NEW YORK · TORONTO







Brunswick Radio Model 5KR6. This is Model 5KRO equipped with electro-dynamic speaker.

THE BRUNSWICK - BALKE - COLLENDER CO

CHICAGO, NEW YORK, TORONTO · Branches in All Principal Cities

#### 2

## NEW low prices on Brunswick Combinations

_	Model		Old Price	New Price
500	2 KRO		\$250.00	\$175.00
	2 KRO	with electric motor	285.00	195.00
	3 KRO		395.00	295.00
	3KR6		450.00	345.00
	3 KR8		675.00	495.00
	3 NC8		700.00	595.00
	3 NW8		995.00	795.00

BY these extraordinary prices, Brunswick greatly widens the field of opportunity for the Brunswick dealer. Prospects who have not been considered "approachable" on Panatrope-Radiolas of this class should now be solicited aggressively. We suggest that you put every available salesman behind these fine instru-

ments and cash in on this opportunity while it lasts.

Never in your history have instruments of such superior design, character and musical performance been offered at these low prices. Stocks are limited, and if you do not have samples of these models on your floor, we suggest that you place your order immediately.

### Panatropes · Radio · Records · Panatrope-Radiolas



Model 3KRO-Electrical-type Brunswick Panatrope combined with the latest Radiola. One of the most popular models Brunswick has ever offered. Model 3KR6-Same instrument with electro-dynamic type speaker.



Model 3NW8-Electrical-type Brunswick Panatrope combined with the landaciola Super-heterodyne. The supreme achievement in music and nate

THE BRUNSWICK-BALKE-COLLENDER CO., Chicago, New York, Toronto · Branches in all principal in



Earl Burtnett and his Orchestra - Exclusive Brunswick Artists

## First Again! on Brunswick Records

-this time all the hits from the sensational talkie, "Broadway Melody"

Big theme songs mean everything to a dealer, provided the records are "right" and are released on time.

In releasing the theme and "hit" selections of "Broadway Melody"—the all-talking movie that is breaking box-office records everywhere—Brunswick again is FIRST—not only in timeliness but in outstanding value.

Great records, these-and they ought to be!

For they were made by Earl Burtnett and his Los Angeles Biltmore Hotel Orchestra—the identical orchestra that provided the original music for this great production.

Here they are — three outstanding sales values: "Broadway Melody" with "You Were Meant for Me", played by Earl Burtnett and his orchestra (No. 4231) "The Wedding of the Painted Doll" with "Love Boat", played by Earl Burtnett and his orchestra (No. 4232) "Broadway Melody" with "You Were Meant for Me", sung by Harold "Scrappy" Lambert (No. 4275)

—Further proof that it pays the music dealer who is after volume sales to handle Brunswick Electrical Records.





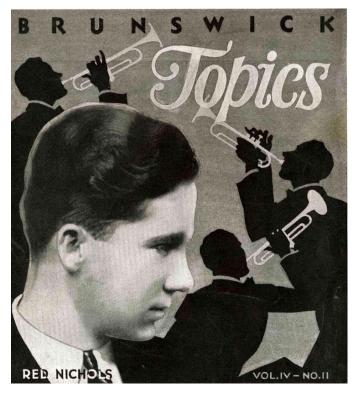
The "Sister Team" (Bessie Love and Anita Page) doing their stuff in "Broadway Melody"



Bessie Love, Charles King and Anita Page reading the first press notices of the successful production, "Broadway Melody"







Coffee Dan's, the comedy short, *A Night At Coffee Dan's*, it featured William Demarest and again utilized the Vitaphone system.

In May Brunswick announced plans for a new recording laboratory to be built in Chicago. It was to be located on the 21<sup>st</sup> floor of The Furniture Mart at 666 Lakeshore Drive. Jack Kapp was named supervisor over four recording studios and a cutting room at the new facility. One studio could accommodate a symphony orchestra and the others were sized in proportion to the need. Each studio had ventilation equipment to give the recording artists pleasant working conditions the year around. (29,204)

The Brunswick Company decided to use the Chicago facilities and

Brunswick artists to pre-record radio programs for broadcast at later times. Called the "Brunswick Brevities," about twenty-six of the radio shows were produced, each with thirty minutes of entertainment and advertising. The first program broadcast August 19<sup>th</sup> and featured Brunswick's top artist, Al Jolson. The broadcasts were syndicated via the National Radio Advertising Company, Inc., and were carried weekly by thirty-two stations. Other artists to record for the broadcasts were Belle Baker, Libby Holman, Irving Mills Hotsy Totsy Gang, Red Nichols, Abe Lyman, Nick Lucas, Ben Bernie and Zelma O'Neil. Each half hour program was on six 12-inch single-sided 78 rpm discs. Norman Brokenshire was the announcer on many of these discs. The Brevities were broadcast until March, 1930. Despite these plans and changes Brunswick considered the musical division to be failing. The sales of Panatropes, records, and even radios were down. A general retrenchment and realignment were seriously considered. In the United Kingdom sales were also down. British Brunswick and Duophone were in financial difficulties. Duophone sold the record pressing factory in New Malden to the Decca Gramophone Company, Ltd. In October British Brunswick was petitioned into liquidation; the last British Brunswick records appeared in October.

In November Brunswick issued record #4335, "...whereon Bill Robinson, tap dancer extraordinary, star of "Blackbirds" and vaudeville circuits, does novelty tap routines to "Ain't Misbehavin" and "Doin' the New Low Down." Bill's occasional comments and singing and the excellent playing by Irving Mills' Hotsy Totsy Gang make for added pleasure."(70) Brunswick executive, E. F. Stevens, reported, "Our export business is gaining by leaps and bounds. We have found it necessary to install large recording plants in South America, one at Rio de Janeiro, Buenos Aires, and Santiago, Chile."(205)



In December Brunswick began to use the new screen-grid vacuum tubes in Panatrope and radio models as well as the new improved electro-dynamic speaker. Also in December Dick Voynow, previously with Gennett records, was made assistant director of the Brunswick recording laboratories in Chicago. During 1929 he had headed an eight-month tour through the South, recording hundreds of selections, including Mexican, country, French-Cajun, race, and popular selections on portable recording equipment.

#### The Year 1930

The new recording studios in Chicago featured a machine that could

record three masters at the same time. Records were also recorded at 33 1/3 rpm for motion pictures. These long-play records could be made in ten, twelve, sixteen and eighteen-inch sizes. Brunswick studios continued to press records for radio broadcasts as pre-recorded programs became common throughout the industry. In January the new "Hall of Fame International Series" was announced for Brunswick records. The January catalogue of *Brunswick Electrical Records* had 131 pages.

The Brunswick Company continued to occupy the front cover of the *Talking Machine World and Radio-Music Merchant* as well as the main advertising pages 2 and 5. Other than various brands and models of the "suitcase" portable phonographs, mechanical phonographs were no longer advertised in the journal. With numerous articles and advertisements the journal was almost completely devoted to the radio industry. Activities and meetings of the new Radio Manufacturers Association were presented. Monthly listings of new record releases by the major companies continued to appear in the back pages. However, new phonograph and record patents were no longer included.

In January Brunswick purchased the assets of the Vitavox Company, consisting of patents, machinery, and equipment for the manufacture of sound-on-film recording and reproducing devices.(206) Also in January, violinist Elias Breeskin was appointed conductor of the Pittsburg Symphony Orchestra. (217)

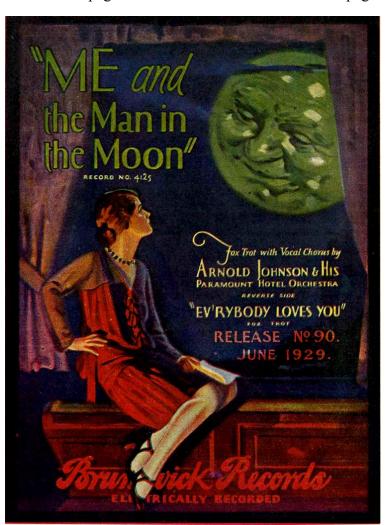
In July of 1929 an article in the TMW-RMM announced that the Acoustic Products Company of New York planned a sweeping reorganization of the company. Percy L. Deutsch resigned as president and was replaced by Eugene P. Herrman. Many changes in manufacturing and merchandizing were planned. However, a small article in the January, 1930 issue of the TMW-RMM has the title, "Sonora Receiver Named." The article states, "A petition in bankruptcy was filed several weeks ago against the Sonora Phonograph Company of America and the Sonora Phonograph Company, Inc., by merchandise creditors. The Irving Trust

Company was appointed receiver by Judge Coxe and no definite plans regarding the company's future have been announced."(207) The 1930 issue of *Moody's Industrial* lists the Sonora Phonograph Company in liquidation with its parent company, Acoustic Products, in receivership.



In February new prices for three of Brunswick's popular radio models were announced: Model S14 (lowboy console) for \$129.00; Model S21 (highboy console) for \$154.00; Model S31 (Panatrope and Radio) for \$249.00. Listed prices did not include vacuum tubes. On February 17<sup>th</sup> the Brunswick Company made application to the Federal Radio Commission for a license to operate an experimental television station on Long Island. Brunswick formed the subsidiary, the United Research Corporation, headed by Dr. Arthur W. Carpenter, to do experimental work using the Hart selenium cell.(218)

On page 2 of the March TMW-RMM a full page advertisement appears for the



Brunswick records from the "Big Hit Talkie," "Devil May Care" with Ramon Navarro and Marion Harris. Brunswick records of songs from this movie were recorded by various Brunswick artists.

In April the Brunswick-Balke-Collender Company completed negotiations with Warner Brothers Pictures, Incorporated, for the sale of Brunswick's musical division, which included radios, Panatropes, and records—all for around \$10 million.(29,219) The sale included factory facilities which consisted of over one million square feet of space fully equipped and modernized. Warner Brothers had been doing well with the Vitaphone talking pictures and envisioned a subsidiary record business using Warner Brothers stars. They had less interest in the Brunswick Panatropes and radios, but there was value in retaining the Brunswick name. The Brunswick Radio Corporation was formed as a subsidiary of Warner Brothers Pictures. Supervision of the new

Warner subdivision was assigned to Herman Starr, Vice-President of Warner Brothers, in charge of technical expansion.(245) Brunswick's recording studios and offices were moved to New York City. Warner Brothers retained Brunswick's managing personnel, including General Manager R. W. Jackson, General Production Manager J. O. Miller, Radio-Panatrope Sales Manager A. A. Trostler, Record Sales Manager E. F. Stevens, Jr., Advertising Manager P. S. Ellison, and the Brunswick staff of production, research and engineering executives.(71,208)

A long article in the May issue of the Talking Machine World and Radio-Music Merchant, "Brunswick Purchase By Warner Bros. Important to Industry," describes the sale in more detail. In addition to the assets of the Brunswick Company's music division, the sale included Brunswick's subsidiaries, the Bremer-Tully Manufacturing Company and the Farrand Manufacturing Company. Brunswick had been able to produce ninety-eight percent of the parts for its radio models; one hundred percent for the Panatrope models. Brunswick's principal manufacturing plants were located in Dubuque, Iowa, and Muskegon, Michigan. The plant at Dubuque covered 30 acres and had 2,000 employees; it included one of the largest and finest wood working factories in the world. Brunswick was one of the few phonograph companies that designed and made their own cabinets. At Muskegon the fully modernized factory had over one million square feet; 300 artisans and craftsmen were engaged in manufacturing radios and records. Brunswick had recording studios in New York City, Chicago, Los Angeles, Rio de Janeiro, Buenos Aires, as well as portable recording equipment. Record pressing plants were located in Long Island City, Muskegon, Los Angeles, Toronto, Rio de Janeiro, Buenos Aires, and Paris, France.(210) The new Warner enterprise also acquired rights to Brunswick-Australia, Ltd.

Changes were made to the labels for records issued after the Warner acquisition. The bottom of labels stated, "Brunswick Radio Corporation" and "Subsidiary of Warner Bros. Pictures, Inc." With the removal of Brunswick in Chicago, Illinois, Gennett in Richmond, Indiana, and Paramount in Port Washington, Wisconsin, came the end for a time of the participation of the mid-West in major phonograph and record enterprises. The new Brunswick owners discontinued the "New Hall of Fame" series and relied entirely on Deutsche Grammophon-Polydor for new additions to the classical section of the Brunswick records catalogue.(13)

In May the Brunswick Radio Corporation announced higher prices for classical and semiclassical records. Recent pressings of Polydor and British Brunswick issues proved to be too expensive to be sold as lower-priced records. This revision brought Brunswick's prices in accord with those generally established for these types of records. For the new prices: ten-inch purple label (10,000 series) for \$1.00, ten-inch gold label (15000 series) for \$1.50, twelve-inch purple label (25000, 27000, and 30000 series) for \$1.50, twelve-inch gold label (80000 series) for \$2.00, twelve-inch gold label International series (90000) for \$2.00, and twelve-inch black label (20000, 77000, and 78000 series) for \$1.25.(72) Popular, Dixie, race, Spanish, Mexican, French and Hawaiian records were held at 75 cents.

In the May 15th TMW-RMM issue a small advertisement appears for the J. A. Fischer Company, Inc. The Fischer Company claimed to have the largest supply of talking machine repair materials in existence; they had a 200 page catalogue of parts and advertised they could provide a single part or thousands as may be needed. Parts for many different brands were held by the company, including gear trains and replacement springs. The Fischer Company was located at 393 7<sup>th</sup> Avenue in New York City.(209)

In the first week of June the Brunswick Radio Corporation headquarters were moved to 120 West 42<sup>nd</sup> Street in New York City—the Wurlitzer Building—near to Grand Central Station. All of the 14<sup>th</sup> floor and half of the 15<sup>th</sup> floor provided over 15,000 square feet for office spaces

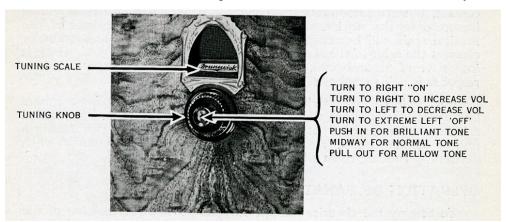
needed for the new firm. From June 2<sup>nd</sup> to 7<sup>th</sup> the annual Radio Manufacturers Association convention was held in Atlantic City, New Jersey. The Brunswick Radio Corporation had major displays of radio and Panatrope models.

The June 25, 1930 issue of *Variety* was dedicated to Warner Brothers and Warner's fiftyone subsidiaries. Many large photographs of Warner executives were included in the paper along with articles on Warner's many activities. In addition to the purchase of Brunswick's music division, Warner had also purchased First National Pictures which had a chain of over eight hundred theaters. Warner's also owned several music publishing companies. One of Warner's subsidiaries, National Radio Advertising, Inc., gave Warner a major position in the field of electrical transcriptions for broadcasting purposes. Also in June Warner Brothers theatres cooperated with Brunswick radio and Panatrope dealers in staging "Brunswick Week." A special advertising campaign was conducted by Paul S. Ellison, advertising manager. Advertisements were placed in 125 leading newspapers around the U. S. The popular Brunswick Model S31 Panatrope with radio was displayed in lobbies of theaters and offered at a special reduced price. A special trailer was shown on the screen calling attention to the event. (211)

In August the *Talking Machine World and Radio-Music Merchant* changed the name of the journal to *Radio-Music Merchant* (Volume 26, No. 8). The journal began to accept advertisements for "allied lines" of the radio industry—refrigerators, electric clocks, wringer washing machines, electric fans, and vacuum cleaners.

In September new Brunswick radio and Panatrope-radio models had a special feature, the "Uni-Selector" dial. All operating controls were located in the center of the control panel and consisted of a switch and volume control knob mounted inside of a larger tuning knob. Also in September the Brunswick Radio Corporation had a two-page color advertisement in the September 13<sup>th</sup> issue of the *Saturday Evening Post*. In Art Deco styling the advertisement featured Brunswick's "Futura Series"--the radio models 14, 22, 31, and the Panatrope Model 42—all with the Uni-Selector dial and all-armored chassis. Similar two-page advertisements appeared in the November and December *Post* issues. The wood of the cabinets was matched walnut veneer with two-tone lacquer finish. The radio amplifier had seven vacuum tubes; two iron core transformers were used. Brunswick made its own condensers and speakers.(73)

In October the Brunswick Radio Corporation introduced two new portable phonograph models—both with mechanical reproducers. The Model 10 sold for only \$15.95 and was



available in red, green, blue, or black fabric covers. The Model 109 was the deluxe version and sold for \$37.50; it was available only with a tan leatherette

covering.(79) Also in October Brunswick started a new house organ, *Brunswick Radio Dealer*. James E. O'Bryon, editor of the *Brunswick Topics*, was editor-in-chief of the new publication.(80) In October Jack Kapp was promoted to manager of all the Brunswick recording laboratories. R. W. Jackson, Vice-President and General Manager of the Brunswick Radio Corporation announced the appointment, "Kapp's outstanding achievements in securing of talent and making commercial records of various types fit him for the position which he has now attained."(81)

The October, 1930 issue of Scientific American lists A. J. Kendrick as president of Sound Studios of New York, Inc. Gus Haenschen was vice-president; the company was located at 50 West 57<sup>th</sup> Street in New York City. Sound Studios took over the recording studios formerly owned by Sonora and produced transcriptions for radio broadcasts.(94) The merchandising arm for Sound Studios was the World Broadcasting System; its president was another former Brunswick executive, Percy L. Deutsch. Although there were many companies producing radio transcriptions, World Broadcasting System (WBS) became the major distributor of sponsored broadcasts and offered the most serious competition to NBC and CBS network broadcasting. With coast-to-coast networks, WBS supplied recorded programs to radio stations nation-wide. In 1930 Sound Studios received the license from Western Electric to use the new wide-range vertical recording system for its radio transcriptions; WBS developed a World Daily Program Service for its subscribing stations. Eventually WBS was able to sell to an international market. Gradually the use of lateral-cut 78 rpm recordings for broadcasts was replaced by sixteen inch transcriptions spinning at 33 1/3 rpm. By October, 1931, WBS was using Western Electric's "noiseless recording" with the use of solid vinylite transcriptions played with a small diameter semi-permanent stylus utilizing vertical modulation and mounted at the end of a very long arm. Methods were developed to improve the frequency response and sound quality which could be impaired by the low speed of the transcriptions.

On November 30<sup>th</sup> the Brunswick Radio Corporation introduced the Melotone record as the fifty cent counterpart to the seventy-five cent Brunswick label. The Melotone record label featured silver print on a blue background.

In December the Brunswick Radio Corporation purchased the factory of the Cliftofone Record Company in London, England. Although completely equipped, this factory was never put into operation due to financial difficulties. Brunswick purchased the plant in October and within six weeks was running at capacity twenty-four hours a day. The company projected pressing five million records a year. The factory, called Warner-Brunswick Ltd., had its own power plant. Chapell, Ltd., contracted for the total output of the factory as wholesale distributors for the British Isles.(82) In the United Kingdom interest in acoustic gramophones continued for almost another decade; several brands of large horn machines were produced. The advantage of the mechanical system was its simplicity while the electrical method had more flexibility and ease of adjusting sound tone and volume.

Business success of The Gramophone Shop facilitated the firm's move to a larger building at 18 East 48<sup>th</sup> Street in New York City.(71) Soprano Virginia Rea changed her name to Olive Palmer and became a very popular vocalist on radio during the 1930's, especially on the Palmolive soap program where she was called the "Olive Palmolive Girl."

# Easier Sales-Longer Profits -when your leader is a Combination

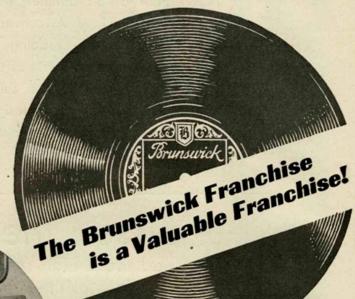
Show a prospect a Combination set (Radio and Panatrope) and instantly you close the door on competition.

He no longer wants just "radio"—he wants that "Model 31!" —And no wonder.

For by every test of eye and ear, it's the greatest single value on the market today.

Incidentally, every Combination set a Brunswick dealer sells leads automatically to increased profits from the sale of Brunswick records.

A mighty profitable Combination! Write today for full particulars.





## Brunswick

Radio - Panatrope with Radio - Records

THE BRUNSWICK-BALKE-COLLENDER CO., New York, Chicago, Toronto

#### The Year 1931

With Brunswick records under new ownership, the December 1930 Brunswick records catalogue was down to 140 pages and was a listing of Brunswick electrical records by the Brunswick Radio Corporation. The "New Hall of Fame" artists were no longer listed. Instead, there was a special listing of classical album sets and selections from popular movies and Broadway musicals. New in the late 1930 catalogue were the Beverley Hill Billies, Earl Burtnett and His Los Angeles Biltmore Hotel Orchestra, Connie's Hot Chocolates, Meyer Davis' Hotel Aster Orchestra, the East Texas Serenaders, Tom Gerun and His Orchestra, Bennie Goodman's



Boys, Al Goodman and His Orchestra, the Bob Haring Orchestra (often as the Colonial Club Orchestra), Roger Kahn and Orchestra, and the Louisiana Rhythm Kings. The popular tenor Harold "Scrappy" Lambert was new to the list. A number of Al Goodman and His Orchestra records were made without vocals for sales in the German market. Numerous alternate takes of Meyer Davis' records were also sold in Germany. Ben Bernie And All The Lads recorded their two famous theme songs, "Au Revoir, Pleasant Dreams" and "It's A Lonesome Old Town"(#4943).

According to author Brian Rust, the record number for Brunswick's popular

records reached number 4999 in February of 1931—in unbroken continuity from the first 2000 numbering in January, 1920. Brunswick leaped over the previously-used 5000 series and resumed at number 6000. "Brunswick Radio Corporation" and "Subsidiary of Warner Bros. Pictures, Inc." were printed at the bottom of Brunswick record labels.

Starting with the January issue, the *Radio-Music Merchant* was printed in a smaller, "standard" size format and was reduced to less than eighty pages. Raymond Bill, editor of the journal, admitted, "Naturally radio has received a setback on account of the world-wide



depression." The Brunswick Radio Corporation occupied the front covers of the journal. The Capehart Corporation of Wayne, Indiana, advertised in the journal the automatic record changing device as installed in their high quality all-electric phonograph. Capehart claimed they had, "The only automatic phonograph in the world which plays complete operas, symphonies, and albums of both sizes, in correct sequence" and had "...exquisitely wrought cabinets in the finest of woods." Their units had a thirteen-tube super-heterodyne radio. Numerous advertisements by radio manufacturers and dealers continued to appear in the journal; advertisements by "allied lines" increased in number. Listings of newly released records were no longer printed although the journal's "Recordings of the Best In Music" section did list and review newly released classical albums. Brunswick and other company advertisements often included listings of their new record releases. Articles on television developments and experimental broadcasts appear in the journal. Popular baritone Seger Ellis was a new Brunswick artist.

In February Brunswick reduced the price of Melotone records to twenty-five cents. Also in February it was announced that Bob Haring had resigned as musical director and recording manager for Brunswick in New York; he had been with Brunswick for two years.(220) A small article in the February 12<sup>th</sup> issue of *Variety* stated that Warner Brothers was abandoning disc recording for films in favor of the Western Electric Sound-on-Film, although they would continue to make records for movie houses not fitted for film sound reproduction.(246) Victor Young was hired to take charge of the phonograph and electrical radio transcription recordings for Brunswick.(83) In March the new Brunswick Automatic Panatrope-With-Radio was announced on the cover of the Radio-Music Merchant. In London, England, the Brunswick Radio Corporation's new subsidiary, Warner-Brunswick, Ltd., was pressing records in the new Shepherd's Bush factory; Matthew Edwin Ricketts was the new managing director. Mr. Ricketts made the observation that the gramophone was still the major musical home entertainment in the United Kingdom. On March 20<sup>th</sup> the merger of the Gramophone Company, Ltd., and the Graphophone Company, Ltd., in England was announced and on April 20<sup>th</sup> they formed the Electric and Musical Industries with Alfred Clark as chairman and Louis Sterling managing director. The two companies were to continue to market separately but would avoid duplication. The merger brought the English-owned Columbia company under control of the Radio Corporation of America, which already owned the Gramophone Company. In April Warner-Brunswick Ltd. introduced Panachord records in Britain; Panachord records were pressed from masters on Melotone and Brunswick in the U.S., from Broadcast, Decca, Brunswick, and Imperial in Britain, and from Polydor in Germany.

In the June issue of the *Radio-Music Merchant* new prices for the Brunswick Panatrope and radio models were announced. The Model 11 (table model) radio listed for \$29.50, Model 12 radio for \$99.50, Model 16 radio for \$119.50, Model 17 radio for \$149.50, Model 24 for \$165.50, Model 33 for \$169.50, and the Model 42 automatic Panatrope-with-radio (listed at \$450.00 in 1930) for \$265.00. The Model 42 could play twenty 10-inch records automatically; 12-inch records manually. From June 8<sup>th</sup> to 12<sup>th</sup> the annual Radio Merchants Association trade show and convention was held in Chicago at the Stevens Hotel. The hotel's grand ballroom had 24,000 square feet for display booths by many radio manufacturers. With many families unable to afford the larger floor model radios, the small "cathedral" table models with wood cabinets were made available by many radio manufacturers; most were priced under \$100.00.

By July record contracts for various high-priced artists were not being renewed; these artists had been accustomed to having yearly contracts with the various phonograph and record companies. From this time on these artists had to accept piece work.(221)

In August the price of the small upright floor Model 12 radio was reduced ten dollars to \$89.50. In September the price for Model 17 was reduced ten dollars. The Brunswick Radio Corporation claimed, "...prices lower than high quality Brunswick radios have ever before been sold. Increased production permits revision of prices. The dealer who concentrates on Brunswick has an unparalleled opportunity for profit." The Model 25 was introduced; it was a complete short and long wave receiver and sold for \$225.00. In October the price for the Model 12 was reduced to \$84.50. In the October *Radio-Music Merchant*, RCA Victor introduced new long-playing records. Made of soft Victolac these records played at 33 1/3 rpm—fifteen minutes on a side. New chromium long-playing needles were also introduced. In November live broadcasts from the stage of the Metropolitan Opera House in New York City commenced.

1931 and 1932 were doleful years for the American phonograph and record business. Warner Brothers soon realized their mistake with the purchase of the Brunswick phonograph and record enterprise. Records by their movie stars, such as Noah Berry, Harry Richman, Gloria Swanson, and even Al Jolson had not sold well. Warner Brothers admitted the Brunswick purchase had been the firm's most costly enterprise with eight million dollars in losses since the purchase and operation of the Brunswick subsidiary. (247) On December 31<sup>st</sup> for a nominal sum Warner's Brunswick Radio Corporation leased to the American Record Corporation (ARC) the trademarks, manufacturing, and sales rights to Brunswick, Vocalion, and Melotone records for the United States, Canada, and some foreign countries. ARC announced that the same sales and laboratory management and most of the Brunswick radio personnel would remain in place. ARC was a subsidiary of the Consolidated Film Industries which engaged in the motion picture film laboratory business developing picture negatives and prints and distributing the positives for motion picture producers. Consolidated Film Industries was incorporated in Delaware in 1928. In October of 1930 Consolidated Film Industries acquired all the preferred and 99% of the common stocks of ARC in exchange for 124,973 common shares.(29) ARC and Brunswick together were often referred to in the industry as ARC-BRC. Warner Brothers retained ownership of the Brunswick Radio Corporation. (74)

The American Record Corporation was a complex study in corporate acquisition and affiliation. Located at 1776 Broadway in New York City, it was initially founded by the merger

of the Scranton Button Company of Scranton, Pennsylvania, the Cameo Record Corporation of New York, and the Regal Record Company of New York. It was incorporated in Delaware on January 25, 1929. Regal was, in turn, owned by the Crystalate Gramophone Record Manufacturing Company, Ltd., of London, England. Regal was also associated with the Plaza Music Company. Cameo was associated with the Pathe Phonograph and Radio Corporation. The Scranton Button Company manufactured items made of shellac and its president, Louis G. Sylvester, was made president of ARC; he was replaced by Herbert Yates, head of Consolidated Film Industries, in October 1929. Scranton Button pressed records for Regal and Cameo but the two recorded and sold separately. ARC concentrated on mail order and chain store sales with most records priced at twenty-five to thirty-five cents. ARC also provided records for theater intermission music and records to juke box operators. Pathe records were sold for fifty-five cents. Records with the Brunswick label were kept at seventy-five cents; Brunswick was the ARC-BRC flagship label. ARC records were sold in England on the Crystalate label. (59,60)

When ARC leased the Brunswick label and records it signed an agreement with Warner Brothers to continue to record, press, and market records under the Brunswick label for approximately ten years and to maintain the seventy-five cents per record. ARC named the new Brunswick division the Brunswick Record Corporation. The Warner/ARC license stipulated that if the Brunswick Record Corporation failed to press and sell a minimum of 250,000 records with the Brunswick trademark in the U.S. and Canada within a one year period, all rights and licenses were terminated. Meanwhile, Warner Brothers' Brunswick Radio Corporation made records



mostly for radio broadcasting, including long-playing transcriptions. The new arrangement gave ARC a major leading label for the first time as well as a roster of major artists, including Bing Crosby, leading crooner of the day. Crosby made his first Brunswick records, "Out of Nowhere" and "If You Should Ever Need Me", on March 31, 1931 in Los Angeles, accompanied by a studio band. In May he recorded "Were You Sincere?" and "Just One More Chance." In June came "I'm Through With Love" and "I've Found a Million Dollar Baby" followed in August by "I Apologize," "Dancing In The Dark," and "Star Dust." In September "Sweet and Lovely" and in October, "Now That You're Gone" and "A Faded Summer Love" were recorded. Many more followed including a recording of "Sweet Georgia Brown" with Isham Jones and His Orchestra in Chicago on April 23, 1932. (11)

In October of 1930 ARC hired

Victor Young as its music director. He remained with ARC–BRC until 1936. Many popular dance records issued on Banner, Conqueror, Domino, Jewel, Perfect, and Romeo labels were directed by Victor Young, although many records that list his name were actually directed by someone else.(2) Art Kahn's name was used quite indiscriminately by ARC-BRC for its studio band during the 1930's. Kahn's name was used for some sides actually recorded by Benny Goodman and His Orchestra, Gene Kardos and His Orchestra, Joe Haymes and His Orchestra, and Victor Young and His Orchestra.(27) Many ARC issues were often duplicated on Banner, Melotone, Oriole, Perfect, and other ARC-BRC labels.

In December the English Columbia Graphophone Company, Ltd., divested itself of its teetering American branch. On January 16, 1932 the Columbia Phonograph Company, Inc., was purchased by the Grigsby-Grunow Company, manufacturers of Majestic radios, tubes, and refrigerators. The sale included the rights to the "Columbia" name in the Western Hemisphere and American possessions.(13,29,74)





#### The Year 1932

In 1932 only six million records were sold in the United States; six percent of the total record sales in 1927. Radio, however, continued to prosper. Radio entertainment was reaching a high professional level and it was all free at a time of massive unemployment and diminishing wages. It was no longer necessary to buy the latest dance records; they were played almost continually on the air waves. In these hard times the public developed an anti-phonograph sentiment. Still, the major record companies struggled for survival. Victor and Columbia maintained their name brands at seventy-five cents for popular records, but introduced the less

expensive subsidiary Bluebird and Okeh brands, which sold for thirty-five cents. The American Record Corporation kept the Melotone, Perfect, and Vocalion brands selling for twenty-five cents. In listing current radio programs, the January 17, 1932, *Chicago Tribune* included the Tuesday evening CBS program, "The Speedway Hour" with Gus Haenschen and his 30-piece orchestra. Haenschen was musical director for many NBC radio programs; he maintained an active radio schedule.

Beginning in January, the cover of the *Radio-Music Merchant* was occupied each month by advertisements for RCA Victor--starting with an advertisement for their new long-playing records. The Columbia Phonograph Company of 55 Fifth Avenue in New York City continued to advertise each month in the journal with two-page phonograph, radio, and records advertisements. The Brunswick Radio Corporation no longer advertised radio and Panatrope models in the journal, but the Brunswick Record Corporation continued monthly full-page advertisements towards the front of the journal; most featured popular Brunswick artists, including Bing Crosby, Guy Lombardo, the Mills Brothers and the Boswell Sisters. The Brunswick Record Corporation also sold Brunswick needles and the acoustic portable Brunswick phonograph models. In February ARC recorded and pressed special records for theatre use. The new "Theatre Record" was to be used in motion picture theatres while a silent trailer was on the screen, during intermission, and also as exit music. These records could also be used by other groups, including churches, clubs, schools, etc. Artists on the new records included Vic Irwin, Louis Katzman, Sam Lanin, "Wizard of the Strings," Ron Smeck, organist Lew White, and others.(75) An article in the April 5<sup>th</sup> issue of *Variety* announced that Columbia planned to discontinue manufacturing the three 25 cent record brands as of May 15<sup>th</sup>—Clarion, Harmony, and Velvet-Tone—due to poor sales of these discs and small profits.(248)

The lower area of the Brunswick record labels changed in early1932 to just "Brunswick Record Corporation." By April the *Radio-Music Merchant* was down to fifty pages. From May 23<sup>rd</sup> to 26<sup>th</sup> the Radio Merchants Association again held their trade show and convention in Chicago at the Stevens Hotel, which claimed to be the largest hotel in the world. Down to forty pages the June *Radio-Music Merchant* contains an editorial, "Why are so few radio receivers



being sold?" In June Isham Jones made his last recording for Brunswick before switching to RCA Victor. Using the Brunswick label, in November ARC produced an album made from the Jerome Kern-Oscar Hammerstein Broadway musical, "Show Boat." The set consisted of four 12-inch records arranged and conducted by Victor Young and featured Olga Albani, Helen Morgan, James Melton, Frank Munn, and Paul Robeson. This recording session (and the Brunswick pressing) is considered by many to represent the ideal performance and matching of artists. It is still a standard against which all other versions of this musical are compared.(28) A full page advertisement in the September 13, 1932 issue of *Variety* contains a printed copy of a letter

from Jack Kapp, Managing Director of Recording Laboratories, congratulating Victor Young for the Showboat production.(249)

In April for £15,000 (roughly \$52,000) Warner-Brunswick, Ltd., in Britain was sold to the Decca Record Company, Ltd.(41) In July Brunswick's 7000 "race" series was discontinued. Ted Fiorito and His Orchestra recorded for Brunswick in October. During the 1930's the Brunswick records catalogues included several famous jazz and blues musicians, including Mildred Bailey, the Boswell Sisters, Cab Calloway, Duke Ellington, Billie Holiday, the Mills Brothers, Red Norvo, and Teddy Wilson (30) In December Eddie Duchin and His Central Park Casino Orchestra became Brunswick artists.

The last issue of the *Phonograph Monthly Review* appeared in March, however, publisher, Axel B. Johnson, resurrection his magazine as the *Music Lovers' Guide* in the fall.

#### The Year 1933

Isham Jones and His Orchestra were still very popular; a full photograph of Jones appeared on the cover of the November 18, 1933, issue of *Billboard*. At the request of the Music Publishers Protective Association, RCA Victor, Columbia, and Brunswick agreed to print on their record labels, "Not Licensed For Radio Broadcast." The statement was meaningless as property rights ended once a record was sold.(4) ARC-BRC promoted Jack Kapp to Assistant To The President, M. J. Seigel. Kapp was replaced as manager of the recording department by Harry Greg.(251) In October ARC-BRC reported a rising demand for phonograph records in all sections of the country.(13) All six of the records Mae West recorded were on the Brunswick label; they were recorded in 1933 and 1934.



#### The Year 1934

The Grigsby-Grunow Company, which owned the Columbia Phonograph Company and manufactured Columbia and Majestic brand radios, was in bankruptcy. A petition in bankruptcy was filed February 20<sup>th</sup> and the company adjudicated bankrupt in March at the Federal Court in Chicago. On April 16th a sale in bankruptcy was held in Chicago; 79,076 of the outstanding 82,523 shares of the Columbia Phonograph Company, Inc., were sold to Sacro Enterprises, Inc. ARC was able to purchase Columbia for only \$70,500.(4,29) The sale included the Columbia plant in Bridgeport, Connecticut, the entire catalogue of disc records slowly built up over three decades, the

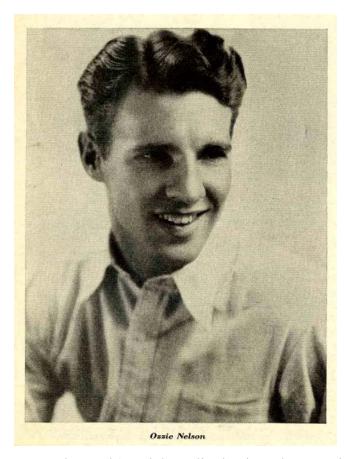
trademark, and the affiliation with Columbia in Europe. (13)

In September a new record company made its debut on the American market, Decca Records. In England, the Decca Record Company, Ltd., decided to establish an American branch. Edward R. Lewis, head of English Decca, joined with Jack Kapp, ex-employee of Brunswick, to establish the United States firm. Lewis invested \$250,000 in the new company; Warner Brothers' Brunswick Radio Corporation provided a \$60,000 loan, supplied recording and pressing facilities, and was given a one-fifth interest in the company.(4) Both Lewis and Kapp believed strongly in the future of the phonograph record. The policy of the new company was that good records need not be expensive. Kapp's plan was to offer the biggest personalities in popular music at thirty-five cents a record or three for a dollar. He convinced many of ARC-BRC's principal artists to join the Decca Company. His first advertisements announced new



exclusive contracts with Bing Crosby, the Dorsey Brothers, Guy Lombardo, Glen Gray, Fletcher Henderson, and the Mills Brothers. Placing advertisements for records on a large scale was new and unusual in 1934. Newspaper readers must have been amazed in December of that year when they read a five-column streamer, "Decca Scoops Music World." The advertisement read:

Here they are—your favorite stars of radio screen and stage—in their greatest performances of instrument and voice!



Not obsolete records, cut in price to meet a market, but the latest, newest smash hits—exclusively DECCA.

Hear them when you want—as often as you want—right in your own home.

Despite this, Decca's first year was nearly a financial disaster. One of Kapp's survival plans was to undercut competition for the jukebox business by offering records for only twenty-one cents each. With a jukebox in every bar, malt shop, and drug store, a large percentage of record sales went for jukebox use; by 1936 this amounted to forty percent of all records produced in the United States.(4) In August of 1934 Warner Brothers' Brunswick Radio Corporation sold its Chicago offices and factories to Decca Records. On September 25, 1935 the Brunswick Radio Corporation granted Decca a 5-year license to use the Brunswick trademark in the Americas (outside of the

U.S. and Canada). High quality laminated Brunswick records were produced.

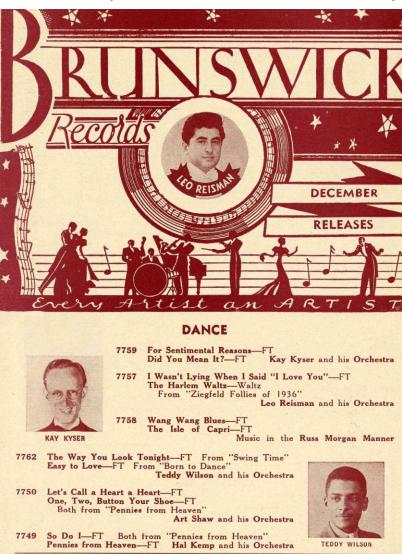
After Jack Kapp left, Brunswick records were supervised by J. Mayo Williams, who was responsible for a prolific output of recordings.(30,61) Stirred by the loss of its principal artists, ARC-BRC hired Irving Mills, noted talent scout and off-brand record producer. Mills proved to be an astute producer and the Brunswick and Perfect recordings he directed sold well. He changed the record labels to state, "For Home Use Only." In March Johnny Green and His Orchestra joined ARC; Gene Kardos and His Orchestra joined in September. In November the



Brunswick Record Corporation produced a catalogue of popular records with 72 pages. Belle Baker, Mildred Bailey, Connie Boswell, the Boswell Sisters, Marlene Dietrich, Adelaide Hall, the Mills Brothers, Dick Powell, and Ethel Waters were new on the Brunswick label. Also records by Ambrose and His Orchestra, Gus Arnheim and His Orchestra, Cab Calloway and His Orchestra, Carter's Orchestra, the Castilian Troubadours, Tom Coakley and His Orchestra, Eddy Duchin and His Central Park Casino Orchestra, Glen Gray and the Casa Loma Orchestra, Earl Hines and His Orchestra, Jack Hylton and His Orchestra, Hal Kemp and His Orchestra, Wayne King and His

Orchestra, Freddy Martin and His Orchestra, Ozzie Nelson and His Orchestra, Leo Reisman and His Orchestra, Don Redman and His Orchestra, Jesse Stafford and His Orchestra, Frank Trumbauer and His Orchestra, Jay Whidden and His Orchestra, and Anson Weeks and His Orchestra.

In 1934 the Federal Radio Commission was replaced by the Federal Communications Commission.(4) In December Isham Jones returned to recording on the Brunswick label. Fred Astaire made his first records for the Brunswick label in 1935. Many of his songs from his movies in the next few years were on the Brunswick label.(12) Brunswick produced a number of colorful picture label records. Brunswick #02400 is a Grace Moore/Victor Young recording of two Kern and Fields numbers; "Our Song" and "The Whistling Boy" from the film, "For You Alone", recorded in Los Angeles on February 19, 1937. One side features a head view of Grace Moore and the reverse has Miss Moore surrounded by seven children. Another example is #03287—Cole Porter's "So Near, and Yet So Far" from the film, "You'll Never Get Rich." It features Harry Sosnik and His Orchestra with the vocal by Fred Astaire—recorded in New York



on September 10, 1941. The photograph features a head view of Fred Astaire.

### The Brunswick Label: The Final Years

During the following years many popular artists and bands were recorded by ARC-BRC and released on one or another of its labels including Bunny Berigan, Benny Goodman, Benny Carter, Del Courtney, Emery Deutsch, Al Donahue, Jimmy Dorsey, Tommy Dorsey, Jan Garber, Horace Heidt, Woody Herman, Will Hudson, Harry James, Wayne King, Gene Krupa, Kay Kyser, Glenn Miller, Russ Morgan, Red Norvo, Louis Prima, Leo Reisman, Raymond Scott, Artie Shaw, Jack Teagarden, Pinky Tomlin, and Teddy Wilson. ARC also recorded a number of songs from movies, usually by the original stars. This included Fred Astaire, Virginia Bruce, Alice Faye, Dorothy Lamour, Mary Martin, Tony Martin, and Phil Regan. The Brunswick label was discarded and reclaimed a number of times over

the next decades. Before 1938 ARC discontinued the chain store labels Banner, Melotone, Oriole, Perfect, and Romeo, but continued to press Conqueror records for Sears, Roebuck and Company.(59,60)

In 1937 the design of the Brunswick record label was again changed, this time to silver print on a vertical "pipe organ" design at the top of the label on a black background. The new Duke Ellington, Raymond Scott, and Hudson-DeLange band records had this label.(5)

In December, 1938 the Columbia Broadcasting System (CBS) purchased from Consolidated Film Industries eighty percent of ARC and in February, 1939 the remaining twenty percent—all for \$785,000. This sale provided CBS with recording, pressing and distributing facilities second only to RCA Victor. The purchase included Columbia's Bridgeport factory and a new Brunswick studio. CBS formed the Columbia Recording Corporation. Columbia dissolved ARC and in 1940 the Brunswick and Vocalion labels were discontinued. The last list of Brunswick popular records was printed in August of 1939. This put CBS in violation of the Warner Brothers/Brunswick Radio Corporation/American Record Corporation/Consolidated Film Industries license; rights to the Brunswick records and label were returned to the Brunswick Radio Corporation, still owned by Warner Brothers Pictures.

Columbia found the Brunswick name and catalogue of earlier records to be of marginal value as it was necessary to store, maintain, and keep records of all transactions affecting Brunswick, and when an early Brunswick recording was re-issued, the Brunswick Radio Corporation received a royalty for the pressings. Columbia re-introduced the Columbia record label, which had been dormant since 1936, and at fifty cents a record it soon became a major brand with the familiar red label. In 1942 the Brunswick label was sold to American Decca Records, which had already purchased the Brunswick Radio Corporation (and the rights to all Brunswick recordings made between 1920 and November 17, 1931) from Warner Brothers Pictures in May of 1941. Columbia retained all the ARC-BRC records made after November 17, 1931. Decca used the Brunswick name for its own issues outside the United States. (29,59,60)

Among the last regular Brunswick records issued in the United States, one was recorded in New York on July 13, 1939 by Harry James and His Orchestra. Both sides featured vocals by Frank Sinatra, who was making his first recordings. The songs were "From The Bottom of My Heart" and "Melancholy Mood" (#8443).(11) With the production of around 130 million records in 1941, the sale of phonograph records in the United States finally exceeded the 1921 sales record.(4) In April, 1942, the War Production Board ordered the U.S. record industry to reduce the amount of shellac used by seventy percent, limit record production to 1940 levels, and keep record prices to those listed in December, 1941. In 1942 Bing Crosby recorded for Decca, "White Christmas," one of the biggest selling single records of all time.

On behalf of the members of the American Federation of Musicians, union president, James Caesar Petrillo, ordered all musicians to cease recording until the record companies agreed to pay royalties to the union on each record sold. The ban became effective July 31, 1942. In July, 1943 the World Broadcasting System was purchased by Decca Records for \$750,000, a bargain price in the midst of the recording strike. That fall Decca was the first major record company to settle with the union. In mid-1944 Decca Records revived the Brunswick label for

#### NEW BRUNSWICK STANDARD RECORDS

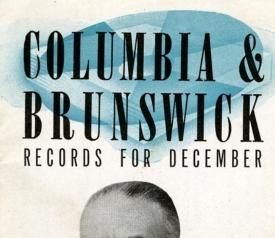
- 8457 BLUE DANUBE WALTZ Instrumental J. Strauss, Arr. Seredy
  MERRY WIDOW WALTZ Instrumental F. Lehar, Arr. Roth
  BRUNSWICK SALON ORCHESTRA
- 8458 GLOW WORM Instrumental
  Lincke
  A MUSICAL SNUFF BOX Instrumental
  Liadow, Arr. Schmid
  BRUNSWICK SALON ORCHESTRA
- 8459 WATER BOY Spiritual
  STEAL AWAY TO JESUS Spiritual
  THE CHARIOTEERS
- 8460 THE STARS AND STRIPES FOREVER —
  March
  J. P. Sousa
  UNDER THE DOUBLE EAGLE March
  J. F. Wagner
  BRUNSWICK MILITARY BAND
- 8461 SHE'LL BE SEVEN IN MAY Fox Trot Wilder IT'S SILK, FEEL IT! — Fox Trot Wilder

ALEC WILDER OCTET

8462 EVENING STAR — Violin Solo (From "Tannhauser") Richard Wagner, Trans. by H. Leonard AVE MARIA — Violin Solo Bach-Gounod

HARRY BLUESTONE Piano Acc. by T. Saidenberg

A new Brunswick Supplement listing all Brunswick Popular Records released since September 1938 is available. Ask for your copy.





Sir Thomas Beecham

**☆ BEECHAM** 

a new recording of Flying Dutchman Overture

**☆ PETRI** 

splendid performance of a great Brahms work

**☆ EHRLICH** 

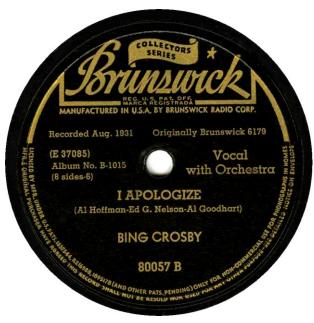
Russian Modern Music by a great conductor

☆ MASINI

new Metropolitan tenor records his first here



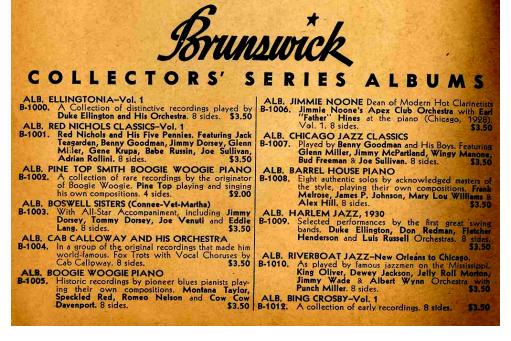




the 80000 series of early jazz re-issues. This record label had gold print on a black background with little ornamentation other than the words "Brunswick" in gold script and "Collector's Series" in a small gold banner at the top. The label also listed in small print the original Brunswick record number and recording date. These re-issues were also sold as album sets, such as "The Boswell Sisters," "Johnny Dodds, the King of New Orleans Clarinets," "Ellingtonia" (volumes 1 and 2, featuring Duke Ellington), "Chicago Jazz Classics" (featuring Benny Goodman and His Boys), "Eddie Lang-Joe Venuti and Their All Star Orchestra," "Red Nichols Classics," (featuring Red Nichols and his Five Pennies),

"King Oliver," and "Pine Top Smith." Two albums of Bing Crosby Brunswick records were released.

During the 1930's and 1940's the Brunswick Radio Corporation continued to produce radio and radio-Panatrope models, including shortwave radios. Models varied in size and design; some as small table models and others as large floor cabinets. Some models were designed to appear as end tables, tall chests with faux drawers, and even a small Duncan Phyfe mahogany round table. The antique radio collectors and restorers are more familiar with all-electric Brunswick radio and Panatrope models and can help restoring the electronics; they can even provide a photocopy of the electronic schematics for most models. Brunswick radio and radio-with-Panatrope models were still being produced and advertised into the 1950's.



In the 1930's the lightweight crystal pickup was commercially developed.(91) Rochelle salt crystals (potassiumsodium tartrate). which have an asymmetric crystal structure, produce an electric potential when stress or pressure is applied



to the crystal—called the piezoelectric effect. The electric potentials produced are almost in direct ratio to the changes in pressure, thus a needle or stylus can be mounted onto the crystal and the electronic impulses generated sent to a radio amplifier. Although the technology had been available for at least twenty years with laboratory-grown crystals, RCA Victor introduced the first crystal pickup phonograph model in May 1936; the Model R-99 retailed at \$150.00. In addition to being lightweight the crystals were inexpensive and convenient to install. They also permitted the use of semi-permanent sapphire and diamond styli and softer shellac records. Layers of thin quartz crystals can produce similar electric potentials. Later certain ceramics formed with metallic oxides were

developed to have greatly improved piezo-electric properties.

In October 1951 Decca Records resurrected the Vocalion label for another series of jazz re-issues. The record labels were modeled on the original 1920's Vocalion labels, but included the words, "Origins of Jazz." The series started at Number V-1001. A number of jazz records



were issued, but most were merely dubbed and were of less good quality. They were discontinued in 1954.(5) In 1958 Decca revived the Vocalion label for long-playing microgroove records to be sold in discount stores.

In 1952 American Decca Records became the largest owner of Universal Pictures. Decca revived the Brunswick label in 1957 for popular rock 45 rpm records and later for 33 1/3 rpm microgroove records. Such artists as Buddy Holly and the Crickets, Jackie Wilson, and the Chi-Lites were on the Brunswick label. Decca used the Coral and Brunswick labels for rhythm and blues records. In 1962 American Decca and Universal Pictures were merged with the Music Corporation of America (MCA). Based in Chicago, MCA was founded in 1924 as a booking agency with offices in several cities. For a time MCA managed King Oliver and Jelly Roll Morton as well as the bands of Don Bestor, Paul Biese, Coon-Sanders, Wayne King, Guy Lombardo, the Seattle Harmony Kings, and Paul Specht. MCA sponsored the historic 1935 summer tour of the Benny Goodman Band. MCA owned several radio stations and whenever a band was booked into a hotel or ballroom MCA also contracted for live radio broadcasts. In 1941 MCA purchased the CBS talent agency and added writing, directing, and radio producing talent to its activities. With this MCA began to dominate the entertainment, record, and later television industries in the United States.(4,28,30) In 1973 MCA dropped the Decca name in favor of its own MCA Records.

#### The Brunswick-Balke-Collender Company After 1930

Despite the difficult negotiations with Warner Brothers Pictures in March and April of 1930, the sale of the phonograph and records division proved to be a wise decision for the Brunswick-Balke-Collender Company, especially in view of the rapid decline in the sales of phonographs and records the following year. The ten million dollar sale helped Brunswick to pay its debts and go through the first difficult years of the Great Depression. Three times the Brunswick Company had to cut salaries, but avoided eliminating workers as long as possible. The sale of billiard and bowling equipment decreased markedly, even though thousands of idle workers spent their time in pool parlors. Brunswick experienced problems collecting debts and lost around one million dollars each year.

With the repeal of Prohibition in 1933, to Brunswick's surprise, the demand for bar fixtures expanded, although for smaller, more streamlined models in Art Deco styles. Brunswick still advertised as the, "World's largest manufacturer of beer fixtures." Brunswick began to sell soda fountains and Blue Flash table-top refrigerators. The demand for these items was small but steady. For fifty dollars Brunswick advertised they would deliver the counter, back counter, and top frame to your door with the balance C.O.D.(222) Brunswick had major exhibits of its various products in the General Exhibits Building at the World's Fair in Chicago in 1933-34. When Benjamin Bensinger died on November 27, 1935, the Brunswick Company was reduced to the size it was at the turn of the century. Sales in 1928 were \$29.5 million but were only \$3.9 million in 1932. Benjamin Bensinger's eldest son, Robert F. Bensinger, was now president of the company with his younger brother, Ted, at his side. The brothers believed the company needed to be revitalized. A management survey was ordered with the result that new men were hired and more modern management methods adopted. Brunswick survived the Depression.(9)

With the coming of World War II the Brunswick factories sprang into action with numerous government contracts. Brunswick factories produced an array of products including parachute bomb flares, assault boats, aircraft fuselages, fuel cells for aircraft and floating mines, landing skids, illuminating mortar shells, aircraft instrument panels, and even aluminum litters. Brunswick produced a lightweight but extremely strong metal alloy called "Brunsalloy;" it was used as a substitute for aluminum in aircraft. The United Service Organizations (USO)

purchased billiard and bowling equipment; Brunswick installed over thirteen thousand billiard tables and three thousand bowling lanes at military and naval bases in the United States and abroad

After the war Brunswick was surprised at the explosive growth and popularity of bowling. The development of bowling balls with holes drilled to fit the player made the game more acceptable to women and children. Bowling became a family sport. This led Brunswick to greatly expand production and sales of bowling equipment. It also advanced the design of a successful pinsetter machine. Many prototypes had been designed by various individuals and companies over the years, but none had proved to be rugged and dependable. In 1950 Ted Bensinger became president of the company. In 1953 a prototype pinsetter model had been produced and successful models were installed starting in 1956. They were remarkable machines, fascinating to watch, and a sensation. Despite their high price and installation costs, Brunswick soon had the task of filling \$30 million in orders.(9)

With the sales of bowling equipment Brunswick was able to expand product lines. Ted Bensinger wanted to make the Brunswick-Balke-Collender Company the "General Motors of Sports." Brunswick purchased MacGregor Sports Products and began producing balls for baseball, basketball, football, golf, and tennis; also golf clubs, bags, and athletic shoes of various kinds. Brunswick purchased Red Head Brand, manufacturer of clothing and equipment for boating, hunting, fishing, and camping. With the purchase of the Union Hardware Company of Connecticut, Brunswick was making roller and ice skates and other special athletic shoes. In 1957 the Brunswick-Balke-Collender Company was listed as a Fortune 500 company for the first time. Also in 1957 the Brunswick Foundation was formed as a 501 charitable organization in the interests of Brunswick employees and the communities in which they live and work. Among other projects Brunswick awarded single-year and multi-year college scholarships to the children of Brunswick employees.

On April 18, 1960, the Brunswick-Balke-Collender Company was renamed the Brunswick Corporation with headquarters in Skokie, Illinois. A new company logo was designed. That year Brunswick purchased the Zebco Company, famous for producing a line of closed-face fishing reels and several models of fishing rods. Also in 1960 Brunswick purchased the Owens Yacht Company and took Brunswick into the boating world. Since World War II boating had greatly expanded and was popular with middle-class Americans. In 1961 Brunswick purchased the Kiekaefer Corporation, manufacturers of Mercury outboard motors. The Mer-Cruiser stern drives became the largest selling inboard/out-drive combination in the world. With the purchase of several medical supply companies Brunswick also expanded into medical products and formed the Sherwood Medical Group. Brunswick developed a line of popular school furniture.(9)

On November 5, 1963, Jack Hanigan was elected president of the Brunswick Corporation while Ted Bensinger became the Chairman of the Board. For the first time in nearly 100 years a Bensinger was not the leader of the company. In 1965 Jack Hanigan led Brunswick into the field of new technologies and formed a Technical and New Business Division for research and development. One of the new products developed was "Brunsmet", a metal fiber product with a

wide array of uses. In 1974 Brunswick installed the first bowling center in the Soviet Union. A sixteen-lane center with automatic pinsetters was installed in Moscow in late September.

Over the next few years sales of boats and boating accessories were expanding rapidly. Brunswick enlarged its production facilities and began producing several models of outboard motor boats with new styling and designs. The motors became less expensive and more dependable. The use of fiberglass and expanded aluminum added strength and reduced weight in the boats. In 1975 an aluminum block V-8 stern drive engine was introduced. Brunswick's sales of bowling equipment overseas continued to expand, especially in the Japanese market. In 1976 Jack Reichert was enlisted from the Mercury outboard division to become president of Brunswick. Soon the Technical Division was producing a diversified variety of products for the defense industry, including boom arms for the Viking Mars Lander, Radomes for military aircraft, composite motor cases for missiles and rockets, and several types of transportable shelters. Brunswick also made specialized valves, seals, regulators, and control units used in a number of industries. In 1977 for the first time Brunswick sales topped one billion dollars.(9,26)

In 1982 Brunswick's success as a business enterprise began to attract unwanted investor interest. A Los Angeles based conglomerate attempted to purchase the Brunswick Corporation with a leveraged buy-out. Brunswick managed to avoid the take-over, but had to sell the medical supplies division. Despite this, Brunswick continued to expand and prosper. Brunswick produced more than four hundred parts for the space shuttle, Columbia, including filters, seals, and pressure vessels. Brunswick began to sponsor international bowling tournaments. In 1988 bowling was included as a demonstration sport at the summer Olympic Games in Seoul, Korea. In 1984 Brunswick began to sell the combination of boat, (outboard) motor, and trailer all as one package. In 1986 Brunswick purchased the Bayliner and Sea Ray boating companies, making Brunswick the world's largest manufacturer of boats and marine products. 1988 proved to be Brunswick's most successful year with sales of \$3.3 billion.

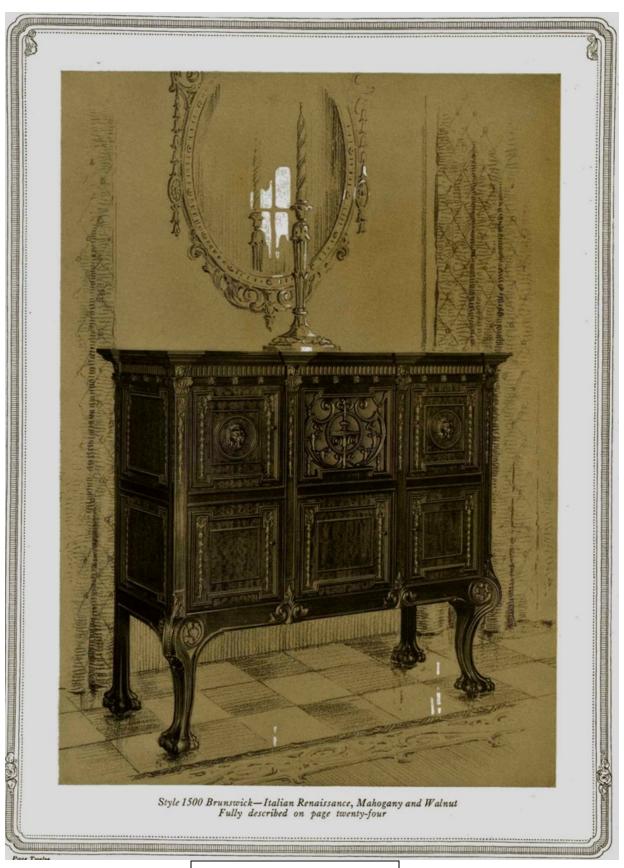
The economic downturn of the early 1990's was difficult for the Brunswick Corporation. Sales of boats and marine supplies dropped more than thirty percent. Three engine plants and fourteen boat plants had to be closed. Some eight thousand jobs were eliminated. The company had to reduce inventories and streamline operations. Nearly half of the boat designs were changed to make them more appealing. Sales increased after 1992. By 1994 the Mercury division made large gains in the boating market. President Reichert predicted that Brunswick would continue to rebound. In April of 1993 new headquarters for the company were built in Lake Forest, Illinois.(9)

In 1995 Brunswick entered its 150<sup>th</sup> year with 22,000 employees. To celebrate the anniversary, an in-house book on the history of the company was produced, *Brunswick, The Story of An American Company, The First 150 Years*, written by noted author, Rick Kogan. The Illinois State Historical Society honored the Brunswick Corporation with a special banquet and the Chicago Cultural Center and held a three-month exhibition of the history and products of the company. The exhibit included a one hundred year-old billiard table, an original Brunswick phonograph and records, a Mineralite bowling ball, a Whale-Bone-Ite seat, an operating Brunswick pinsetter, bowling and fishing equipment, a 1941 Mercury outboard engine, a 1947 Lightning ten horsepower outboard, a 1949 Mercury Thunderbolt outboard, scale models of

Bayliner and Sea Ray boats, and three informative video presentations. The brochure for the exhibit ends with the statement, "It's just the beginning. The future of Brunswick looks bright. It's a Chicagoland Company with a diverse line of superior products, excellent distribution, a strong balance sheet, and a seasoned management team."

In 1995 the Brunswick Company was honored with a certificate of appreciation from the National Academy of Recording Arts and Sciences in recognition of Brunswick's contribution to the pioneer recording industry. The address of the Brunswick Corporation is One North Field Court, Lake Forest, Illinois, 60045-4811.

### Brunswick Phonographs



1918 Brunswick Catalogue























## IMPORTANT NOTICE

Change of Style Numbers of Brunswick Phonographs

0

BEGINNING February 1, the Style Numbers of Brunswick Phonographs will be changed as follows:

Style "75" will be known as Style "7"
Style "100" will be known as Style "10"
Style "125" will be known as Style "12"
Style "150" will be known as Style "15"
Style "175" will be known as Style "17"
Style "200" will be known as Style "20"
Style "225" will be known as Style "22"
Style "27" - remains - Style "27"
Style "35" - remains - Style "35"

This change is in Style Number only; the equipment of each respective style will remain the same.

When ordering phonographs the new Style Numbers should, of course, be used.

The Brunswick-Balke-Collender Company

For 1919







**Brunswick Catalogue Dated 9/4/1925** 







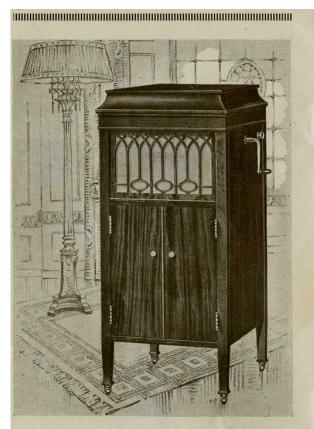








Canadian Brunswick Catalogue Dated 5/1/1918



#### No. 125-Oak or Mahogany Price \$134.00

Strong, double-spring motor, playing four 10-inch records with one winding. Tone modifier. Equipped with extra sound box for playing Brunswick and Pathe records. Full tone sapphire needle. Half tone sapphire needle. Jewel point for playing records using a diamond point. Twelve-inch turntable. Automatic stop. Equipment for playing all makes of disc records. Trimmings nickel plated. Shelf filing system. Compartment for accessories. (Diamond needle, \$5.00 extra). Height 44 in. Width, 19 in. Depth, 20 in.

(Price includes Excise Tax) 

### Price \$107.00 No. 100-Oak or Mahogany

Strong, double-spring motor. Tone modifier. Equipped with extra sound box for playing Brunswick and Pathe records. Full tone sapphire needle. Half tone sapphire needle. Jewel point for playing records using a diamond point. Twelve-inch turntable. Automatic stop. Equipment for playing all makes of disc records. Shelf filing system. Capacity 100 records. Trimmings nickel plated. (Diamond needle, \$5.00 extra). Height, 42 in. Width, 19 in. Depth 21 in.

(Price includes Excise Tax) 



### No. 78—Oak or Mahogany Pr

Price \$84.00

All wood sound chamber, strong double-spring motor, fully equipped to play all records, including special sound box for Brunswick and Pathe records. Full tone sapphire ball. Half tone sapphire ball. Jewel point for Edison records. Twelveinch turntable. Height, 15½ in. Width, 19¾ in. Depth, 21 in.

(Price includes Excise Tax)



No. 53-Oak or Mahogany

Price \$57.00

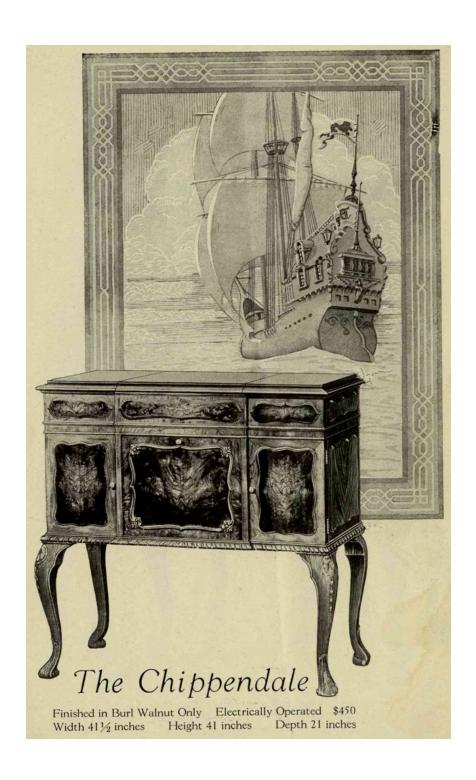
All wood sound chamber, a strong double-spring motor, one sound box, plays all records. Full tone sapphire ball. Jewel point for Edison records. Steel needles. Twelve-inch turntable. Height, 13½ in. Width 17½ in. Depth, 19¾ in.

Price includes Excise Tax)

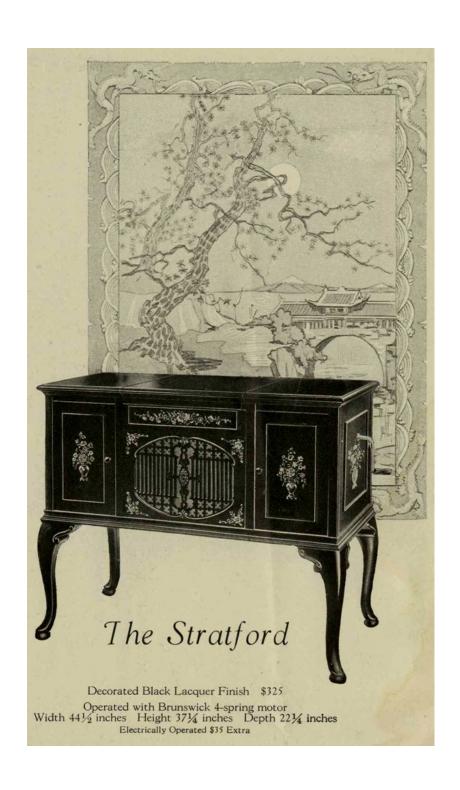


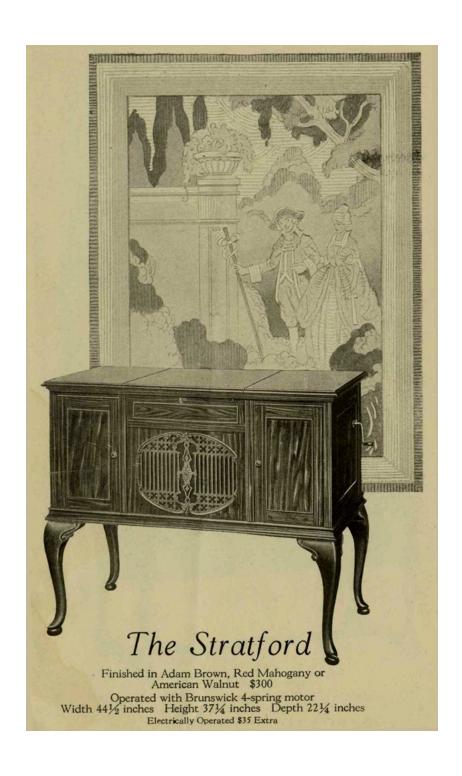
**Brunswick Console Models Catalogue Dated 11/24/1924** 











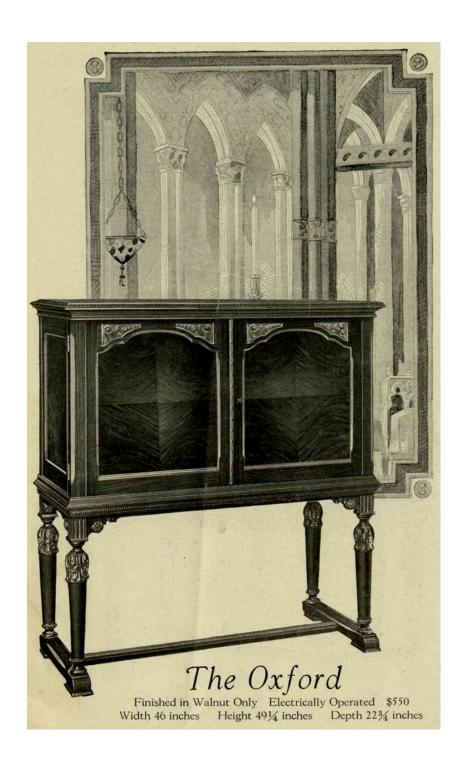


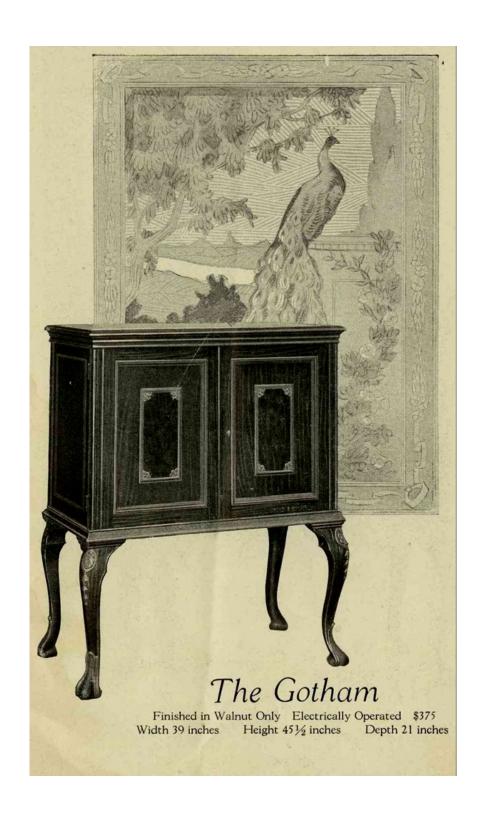


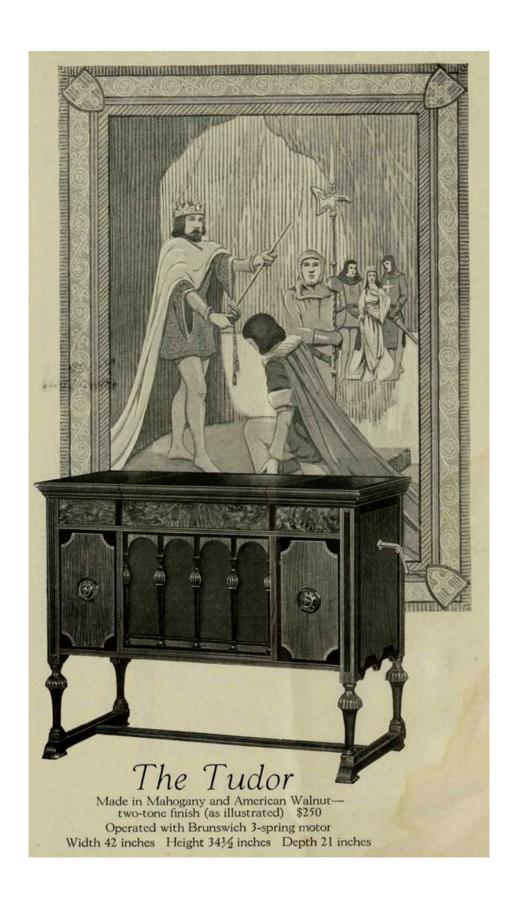
**De Luxe Console Models** 















Raleigh Model Brunswick Phonograph

\$200.00 in October, 1923; Reduced to \$180.00 in 1924

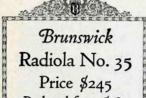
# Brunswick Radiolas



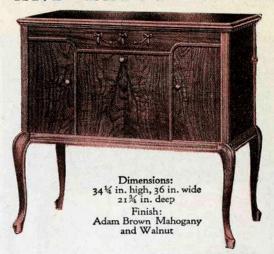
**Undated Brunswick Radiola Catalogue From 1924/1925** 



### PHONOGRAPH AND RADIO IN ONE



Reduced from \$285 (Not including batteries) Employing the Radiola 3A, a four-tube dry battery receiver, in combination with the Brunswick Phonograph.



# -Some Remarkable Features

- 1 Four-tube receiver set. Last two tubes connected for balanced audio amplification. This eliminates distortion.
- 2 Special double-purpose tone amplifier, added to the Brunswick oval wood horn, gives to the Brunswick Radiola a decidedly superior tone quality. Batteries and radio enclosed in cabinet.
- 3 This instrument gives remarkable receiving results and you have an outstanding radio set and phonograph at an unusually attractive price.



Undated Brunswick Radiola Catalogue From 1924/1925

## **Brunswick Radiolas**

Nos. 160, 260 and 360

### Employing the Radiola Super-Heterodyne

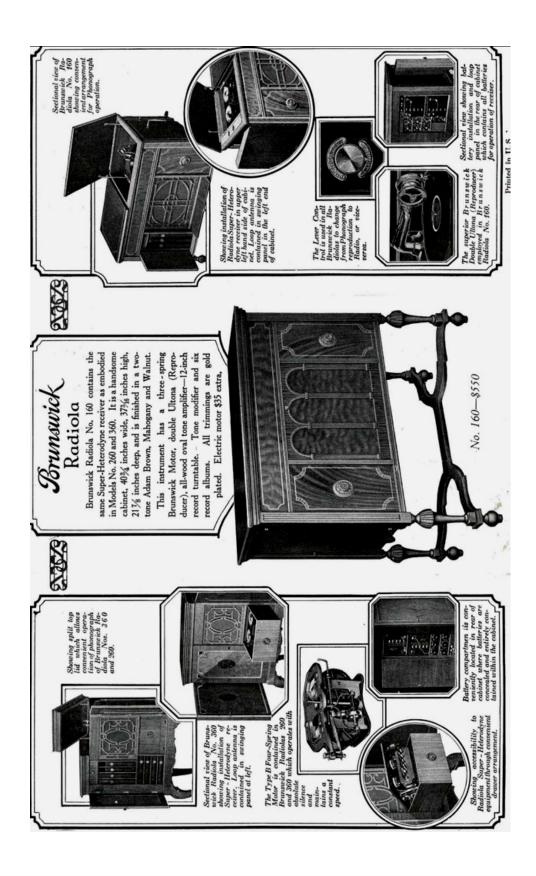
The Radiola Super-Heterodyne is the latest and greatest achievement in radio. The Super-Heterodyne in these types of Brunswick Radiolas is a six-tube dry-battery receiver, utilizing the new principle—the second harmonic oscillator, yet simplified for everyone's operation. Only two tuning controls require manipulation to bring in local as well as far distant stations. Selectivity unattained by any other known principle is provided. It enables one to select from programs of far distant stations whether or not local stations are in operation. This is a selectivity far beyond that provided by any other known combination of tuning methods.

A non-radiating receiver, an entirely new development in Radio reception—a type which no matter how handled will not interfere with a neighbor's enjoyment.

Distinctive—These cabinets are of unusual beauty, harmonizing with the most discriminating tastes in home furnishing and decoration. Best of all, its beauty in the home is not marred by unsightly ground and antenna wires, for a loop antenna is hidden in the hinged end panel of the cabinets and no earth connection is needed. All the dry batteries are concealed in the rear of the cabinets.

Easy to Operate—By the mere turn of the Lever Control one may secure both the "Music of the Air" by Radio, or the "Music of One's Choice" on the Phonograph. The Brunswick patented all-wood oval horn is the so-called "loudspeaker," and provides superlative tone quality.











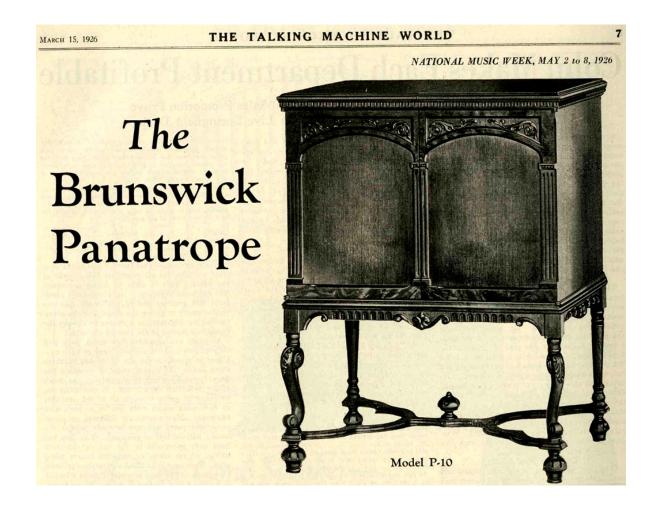
# Brunswick All-Electric Panatrope And Panatrope-With Radiola Alodels

# The World's First Purely Electrical Reproducing Musical Instrument

I JSUALLY, through the medium of words, we are able to give you a reasonably good mental picture of the product presented. The Brunswick Panatrope, however, cannot be justly described. It is based upon entirely new electrical principles. There is nothing with which this startling musical invention may be compared. So we ask you to hear it-to enjoy for the first time the perfect reproduction of every note in popular or classical music. We have the Brunswick Panatrope in many artistic cabinet designs. Just call upon us today to see and hear this marvelous new musical instrument for the home. No obligation, of course.

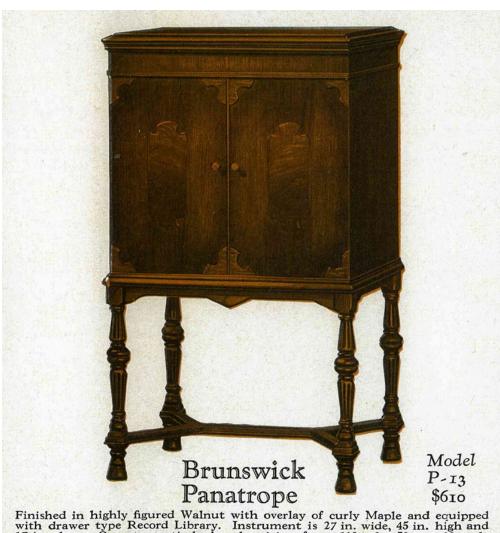


**Brunswick Panatrope Folder Dated 5/7/1926** 





**Undated Brunswick Folder** 



Finished in highly figured Walnut with overlay of curly Maple and equipped with drawer type Record Library. Instrument is 27 in. wide, 45 in. high and 17 in. deep. Operates entirely by electricity, from 110-volt, 50- to 60-cycle alternating current.

Magnetic pick-up, volume control, power amplifier and 6-in reproducer of the cone type are the principal electrical features of the instrument. A radio-jack set in the rear of the cabinet utilizes the amplifying and reproducing equipment of the instrument and turns it instantly into a loud speaker and amplifier for the independent radio set. Equipment also includes specially designed noiseless electric motor and inspected radio tubes.

**Brunswick Panatrope Catalogue Dated 9/28/1927** 

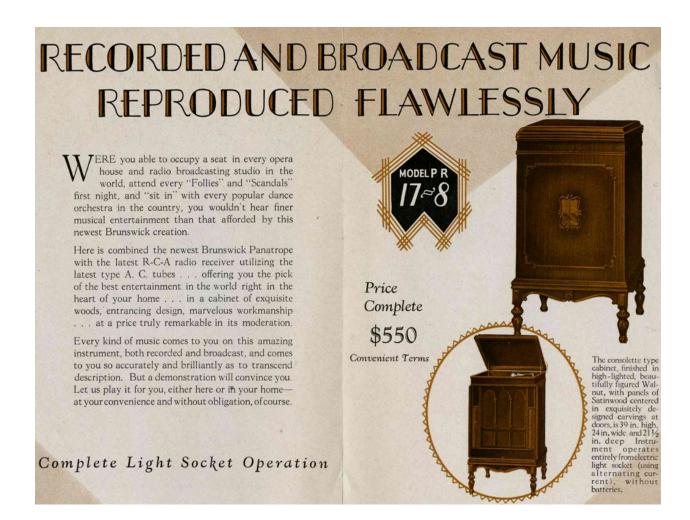


Finished in highly figured matched Walnut and equipped with four recordfiling drawers with a capacity of forty 12-inch and forty 10-inch records. Instrument is 30 in. wide, 43 in. high and 221/4 in. deep. Operates entirely by electricity, 110-volt, 50- to 60-cycle alternating current being used.

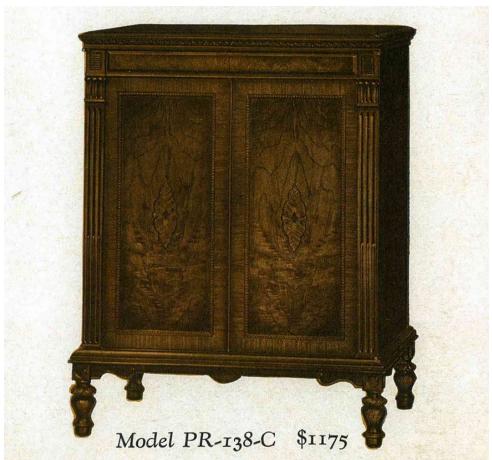
Magnetic pick-up, volume control and power amplifier are the principal electrical features of the instrument. A radio-jack set in the rear of the cabinet utilizes the amplifying and reproducing equipment of the instrument and turns it instantly into a loud speaker and amplifier for the independent radio set. Equipment also includes specially designed noiseless electric motor and inspected radio tubes.



**Brunswick Panatrope Folder Dated 3/5/1928** 

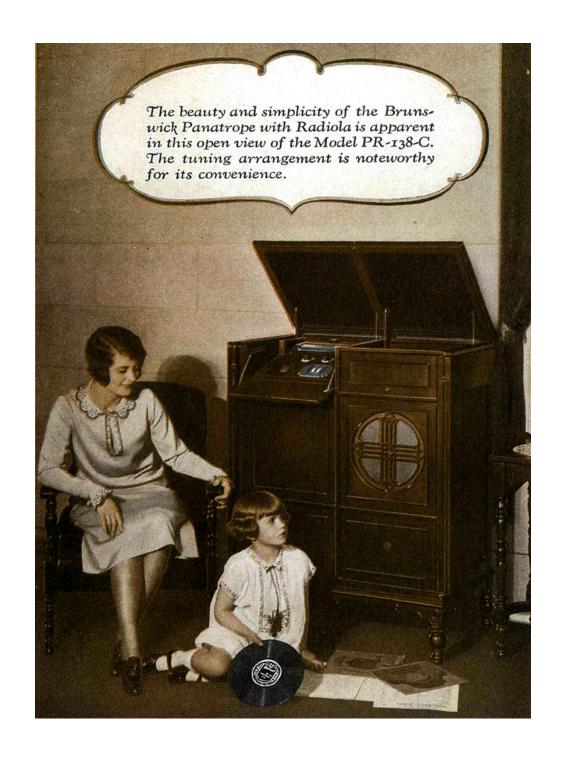


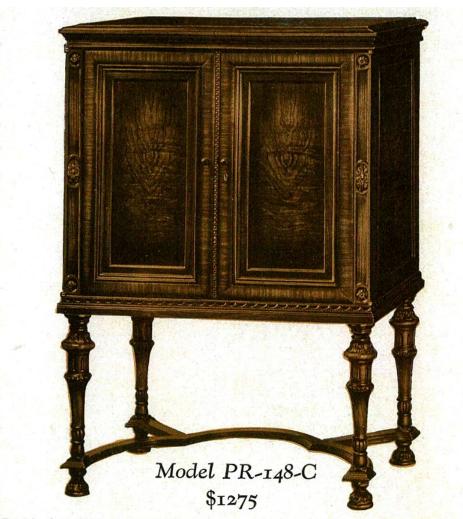
**Brunswick Folder Dated 11/25/1927** 



Finished in highly figured Walnut and equipped with drawer type Record Library. Contains the 8-tube Radiola Super-Heterodyne. Cabinet is 35 in. wide, 45 in. high and 20½ in. deep. Instrument operates on 110-volt, 50- to 60-cycle alternating current, without outside antenna or batteries, thus affording complete light socket operation.

Both recorded music and radio reception are amplified in the power amplifier, reproduced in the cone-type reproducer, and subject to the volume control. Condenser bank stabilizes the flow of current. Equipment also includes specially designed noiseless electric motor and complete set of rigidly inspected radio tubes.





Finished in beautifully figured Walnut, equipped with drawer type Record Library. Contains the 8-tube Radiola Super-Heterodyne. Cabinet is 35 in. wide, 51 in. high and 22 in. deep. Instrument operates on 110-volt, 50- to 60-cycle alternating current, without outside antenna or batteries, thus affording complete light socket operation.

Both recorded music and radio reception are amplified in the power amplifier, reproduced in the cone-type reproducer, and subject to the volume control. Condenser bank stabilizes the flow of current. Equipment also includes specially designed noiseless electric motor and complete set of rigidly inspected radio tubes.





**Brunswick Folder Dated 10/17/1928** 



**Brunswick Panatrope Folder Dated 1/21/1929** 



**Brunswick Folder Dated 9/15/1928** 

#### Porunswick PANATROPE with RADIOLA embodying

#### Two New Principles of Sound Reproduction

Model 3NW8

Price: Including A. C. Tubes

\$995.00

Convenient Terms This amazing instrument measures 51 in. high, 35 in. wide, and 22½ in. deep. See next page for additional specifications

Automatic Control of Volume

This combined unit is served by more power than has ever been used before in

a reproducing instrument power so great that the broad- of the operator. \$705.00

cast of distant stations is reproduced in a natural volume. But to use the same amount of power to "bring in" a local station would make it unbearably loud.

The automatic control nullifies

this tendency. Its base is a tube acting as a regulator that determines the amount of power the electro-dynamic speaker receives to perform its reproducing function. Hence, the automatic control, once set for a pre-determined volume, allows exactly enough power through to the speaker to reproduce and maintain all stations at that pre-determined volume. venience of operation.

Most receivers are tuned Eye Tuning with the ear. The clarity or dissonance of tone reproduced depends entirely upon the "tone consciousness"

> In this instrument a resonance meter eliminates guesswork by the ear. The operator tunes the receiver in the usual mannerbut the needle of themeter tells him when the set is tuned to exactly

the same frequency as the station he is getting. In this way, the reception is automatically adjusted for maximum clarity and purity of tone, and receives the station's entertainment exactly as broadcast, whether the station be local or distant. This condition has been found to be absolutely necessary for perfection in tone quality as well as con-

ELECTRICALLY OPERATED THROUGHOUT!



**Brunswick Panatrope Folder Dated 11/1/1928** 

#### MATCHLESS MUSICAL QUALITY-PLUS CABINET ARTISTRY AT A

New Low Price



Brunswick Panatrope with 7-Tube Radiola Model 2KRO
Highboy cabinet of beautifully finished
American Walnut, with exterior metal
parts in oxidized antique finish, is 29½
in. wide, 49 in. high, and 18½ in. deep. a complete unit of entertainment

oMBINING the Brunswick Pantructure with a 7-tube Radiola receiver and embodying all the highly successful outsied feature of both instruments in a superlative abinet.

The 7-tube receiver employs three stages The 7-tube receiver employs three stages of tuned radio receiver employs three stages of tuned radio receiver supplification, and the stage of the following the following the stage of the following t

PRICE Including A. C. Tubes

CONVENIENT TERMS

RUNSWICK has created a masterpiece of entertainment for the home in its new Model 2KRO Panatrope with Radiola . . . and at a price truly surprising in its moderation!

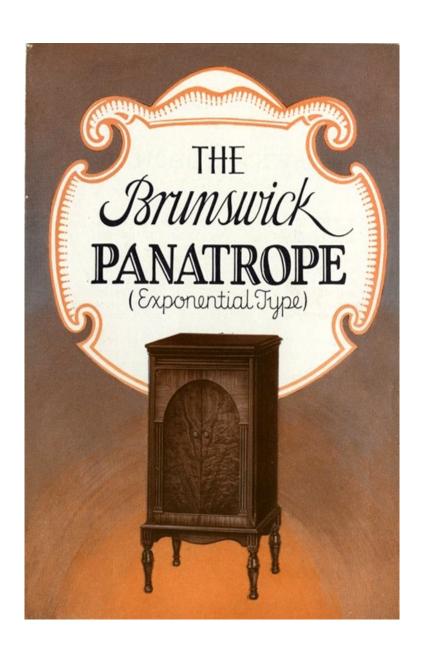
Think of it . . . a real Brunswick Panatrope, world famous for its marvelous performance . . . and a seven-tube Radiola receiver, representing the latest advance in radio engineering by the foremost makers of radio receivers in the world ... both in an eye-appealing piece of furniture harmonizing with any scheme of interior decoration. And this marvelous combination is available to you . . . assuring years on years of delightful entertainment ... at a price actually less than you would pay for an individual radio receiver.

Truly you couldn't find a better "buy" than this . . . anywhere at any price!

The radio receiver of this instrument operates directly and entirely from the electric light socket in the home.

**Brunswick Panatrope Folder Dated 1/21/1929** 

# Brunswick Acoustic Panatrope Models



Model 14-7



**Brunswick Panatrope Folder Dated 10/19/1927** 

#### **BRUNSWICK'S** New Musical Instrument

Combined with the

#### Radiola Super-Heterodyne

You will be interested, for many reasons, in the new Brunswick Cordova. Permit us to outline just six:

- - Superb tone quality, developed by the exclusive acoustical principles of The New Brunswick Phonograph.
- 2. REPRODUCING FEATURES—
- REPRODUCING FEAT ORES—
  Brunswick's New Musical Instrument employs astounding new principles of reproduction, thus attaining extraordinary musical results. Plays all records with amazing fidelity.
- 3. RADIO SELECTIVITY-
  - The Radiola Super-Heterodyne in the Bruns-wick Radiola is the most selective of all radio receivers. Tune in just what you want with-out interference from other stations.
- 4. APPEARANCE-
  - APPEARAQUE— The Brunswick Radiola, Model B. R. 50, is a beautiful cabinet. Complete in itself, and without unsightly outside wires, aerials or connections of any kind.
- 5. ATTRACTIVELY PRICED-
  - This new instrument is priced most reasonably; and available on usual convenient payment plan.
- 6. COMPLETE LIGHT SOCKET OPERATION-The Phileo "AB Socket Power Unit" may be added to give complete light socket operation. This eliminates use of any dry cell batteries excepting one small "C" battery.

We want to demonstrate this wonderful new instrument for you. And will gladly do so in our store, or your home, without obligation. Just write, telephone, or call upon us.



#### The Cordova

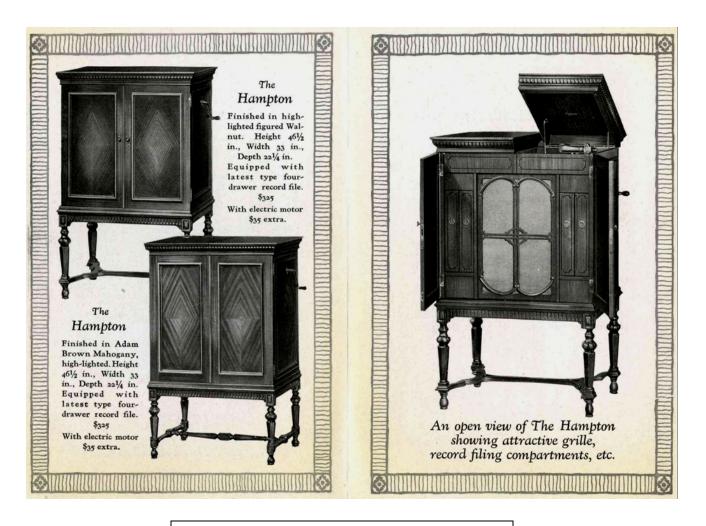
Finished in two-toned Adam Brown Mahogany. Height 37¼ ins. Width 40½ ins. Depth 22 ins.

No wet batteries No outside connections Completely self-contained

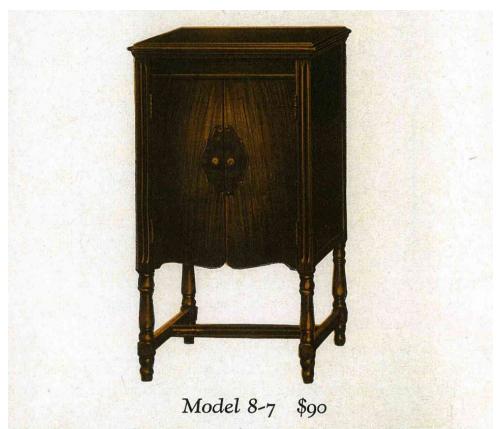
With Six-tube Radiola, \$450 With Eight-tube Radiola, \$550 Electric motor \$35 extra

The Philco "AB Socket Power Unit" may be added to give complete light socket operation.

**Brunswick Panatrope Folder Dated 11/10/1926** 



**Brunswick Panatrope Folder Dated 11/17/1926** 



This cabinet available in two finishes—Adam Brown Mahogany or American Walnut, both high-lighted. Convenient space for two 12-inch record albums. Exposed metal parts are oxidized finish; inside metal parts, nickel-plated. Instrument is 2134 in. wide, 37 in. high and 201/2 in. deep.

With electric motor, \$35 extra

**Brunswick Catalogue Dated 9/18/1927** 



**Brunswick Panatrope Folder Dated 6/15/1927** 

tion in a beautiful piece of American cabinet-work.

Open view of the Brunswick Panatrope (Exponential Type) Model 8-7 Note the convenient place for record album

### MATCHLESS MUSIC IN YOUR HOME at any time you desire

Panatrope for the first time is to hear the most modern application of acoustical science created and developed by Brunswick. This new principle assures a full, clear, rounded tone; remarkable range of the musical scale, and volume to fit the acoustics of any room. It gives you matchless music in your home at any time you desire.

Its perfect tone is developed by means of a new all-metal diaphragm that picks up *every* recorded sound and transmits it to a new augmented tone chamber for amplification . . . . the result is musical perfection!

And this model is not only a remarkable musical instrument, but an article of furniture of which any home may well be proud.

Come in and let us show it to you; and play it for you. You'll be both amazed and delighted.

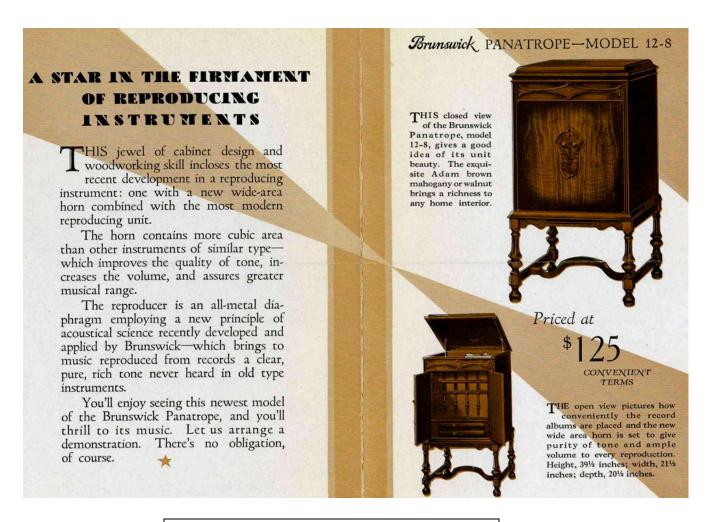
Brunswick Panatrope



This striking cabinet fashioned of beautifully high-lighted Adam brown mahogany or wahnut, has facilities for two record albums. It is compact, yet houses the newest type reproducing instrument, one that affords quality of tone unheard of in creations in its price class. Moreover, it is a truly exquisite article of furniture. Height, 37% inches; width, 19% inches; depth, 20% inches.



**Brunswick Panatrope Folder Dated 2/1/1929** 



**Brunswick Panatrope Folder Dated 10/23/1928** 



Model 14-7 \$160

This newest consolette type of cabinet finished in beautifully figured Walnut with an overlay of Satinwood. Instrument is equipped with one 12-in. and two 10-in. record albums. Cabinet is 23 in. wide, 40½ in. high, and 21¾ in. deep. Antique oxidized finish on all metal parts.

With electric motor, \$35 extra



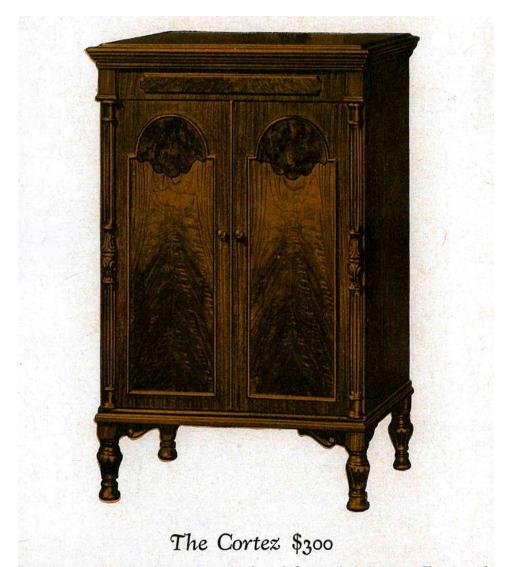
**Brunswick Folder Dated 9/15/1928** 



The Valencia \$235

Finished in high-lighted Adam Brown Mahogany, with an overlay of walnut and curly maple. Equipped with special record drawers and index. Instrument is 36 in. wide, 38½ in. high and 21 in. deep. Antique oxidized finish on all metal parts.

With electric motor, \$35 extra



Finished in high-lighted matched and figured Walnut. Equipped with special record drawers and index. Instrument is 30 in. wide, 43 in. high and 22¼ in. deep. Gold plated metal parts.

With electric motor, \$35 extra

## Brunswick Portable Phonograph Models



**Brunswick Folder Dated 6/22/1926** 





Price Complete, \$27.50

On vacations, fishing trips, week-end journeys, and at home, the New Brunswick Portable offers dependable entertainment. It takes up very little space at home and it is such a small addition to your baggage on a trip that it isn't even noticed—until it is needed. Here is a marvel of compactness and durability, offering smooth, rhythmic, natural music. It weighs very little and carries up to twenty records at one time.

**Brunswick Panatrope Catalogue Dated 9/28/1927** 

#### The New Brunswick Portable



of Beautifully Figured BLACK or BLUE F A B R I K O I D

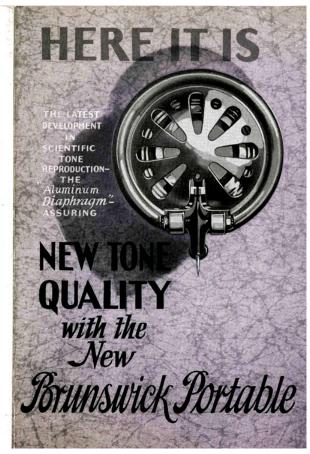
The unit is fashioned of black or bluegrained Fabrikoid, a material possessing the richness and durability of the finest leather. A richly-colored embossed panel design decorates the lid.

Its graceful proportions—15 inches long, 11½ inches deep, 8 inches high—allows ample room for instrument and records, yet it is as

Easy to Carry as a Brief Case

Price Complete \$25.00

- SOLD BY -



FORM 1233E-4 FXM 11-30-27 PRINTED IN U. S. A.

Front and Back Cover -- Brunswick Folder Dated 11/30/1927



#### TONE-QUALITY plus VOLUME

The new principles of reproduction which Brunswick has applied so successfully in its new musical instrument are now made available for the first time in a Portable.

The application of these discoveries means a tone quality and the volume that have never been anywhere near equalled in any Portable placed on the market. In short, the Brunswick Portable represents the highest development in this type of instrument.

# hy the new Brunswick Portable

#### **BECAUSE**

- it is equipped with a new principle Reproducer, the latest advance in acoustical reproduction. This marvelous Reproducer positively assures a quality of tone not hitherto possible to obtain.
- its mechanically perfect Brunswick motor provides unbroken, lasting *power*.
- its construction of carefully selected plywood and beautifully figured Black or Blue Fabrikoid (metal-trimmed) insures lightness and compactness, coupled with beauty and durability.
- an ample number of records (up to twenty) can be carried in it at one time. This supplies a variety of entertainment to fit any occasion.
- it can be carried anywhere—to afford enter-tainment for every member of the family in any location desired: at home, in a hotel room, at the country club; on vacations, a fishing, camping, or automobile trip—anywhere that music is needed to lighten and brighten the gathering.
- it is made and guaranteed by one of the largest manufacturing organizations of its kind in the world—which protects you in every transaction.
- it is the most efficient portable musical instru-ment made anywhere—by anybody—at any price.

The Brunswick Dealer in your community has the New Brunswick Portable on display at his shop. Let him demonstrate it to you there—or at your home—without obligation, of course.

The Brunswick-Balke-Collender Co. Chicago, illinois

Brunswick Folder Dated 11/30/1927



**Brunswick Folder Dated 6/27/1928** 

# MUSIC IN THE HOME OR OUT OF IT

HEREVER you go . . . whatever the occasion . . . Brunswick's latest portable reproducing instrument provides you with the peppiest, most tuneful entertainment you've ever heard.

Built to an exacting musical standard by a world-famous music house, the new Model 109 Brunswick Portable Panatrope contains all the marvelous tone-reproducing features made famous by Brunswick: all-metal reproducer, assuring greater range and clearer, purer tone; wide area tone chamber that further improves the tone and increases the volume; automatic stop; large record-carrying capacity; noiseless motor; the ability to play ALL disc records.

This compact, easy-to-carry cabinet of metal with padded covering of tan leatherette is a real musical instrument in every respect that provides you with perfect entertainment for any occasion anywhere.

PRICE STORY STORY



Brunswick PANATROPE Model 109

**Brunswick Folder Dated 9/11/1929** 

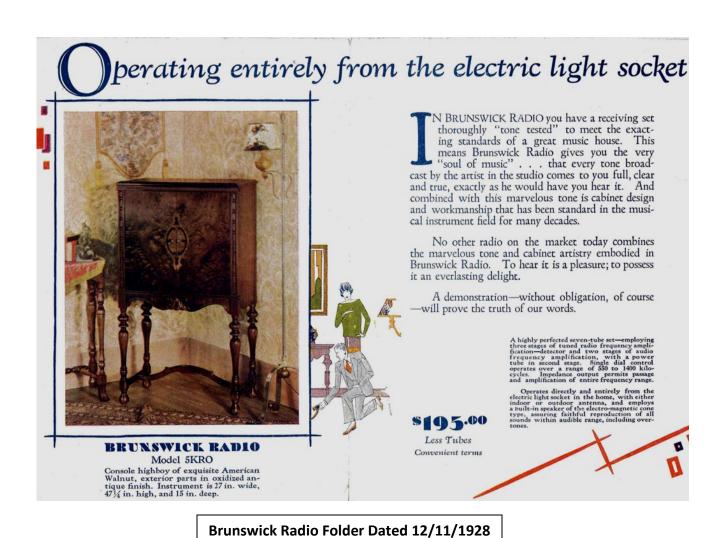
# Brunswick Radio And And Radio-WithPanatrope Models



**Brunswick Radio Folder Dated 1/3/1929** 



**Brunswick Radio Folder Dated 11/15/1928** 





**Brunswick Folder Dated 9/15/1928** 



**Brunswick Radio Folder Dated 12/11/1928** 

# INSTRUMENTS with a background of achievement ...



o developments. A s39.50 low price.

### BRUNSWICK RADIO

Model II table model cabinet or matched scalaur—22½.

Price in. high, 17½ in. wide, and 10½ in. deep. ALL.

867.50 latest radio developments included.



BRUNSWICK RADIO

884.50 complete with tube

7-tube Super-Heterodyne receiver in low-boy console of matched walnut—38½ in. high, 19½ in. wide, and 14½ in. deep. ALL latest radio developments included.

### BRUNSWICK RADIO

Price 884.50

7-tube Super-Heterodyne receiver in miniature high-boy cabinet of matched walnut—43 in. high, 171/2 in. wide, and 101/2 in. deep. ALL latest radio developments included.



### **^^^^^^^** INCLUDING FEATURES THAT BRUNSWICK HAS BUILT INTO EVERY INSTRUMENT





This circuit employs one type 47 Pentode tube and one type 27 automatic volume control tube additional to the 7-tube equipment. The Pentode additional to the 7-tube equipment. The Pentode twenty times as much as the average power tube and afford twice as much output. Nine-tube circuit used in Models 17 and 24. Model 25 is outpped with 11-tube circuit.













8225.00 complete with tubes An 11-tube in-



9-tube Super-Heterodyne receiver in low-boy cabinet of matched walnut— 41½ in. high, 21¾ in. wide, and 13½ in. deep. Includes 12-in. De Luxe dy-namic speaker and ALL latest radio

Undated Brunswick Radio Corporation Folder – About 1931



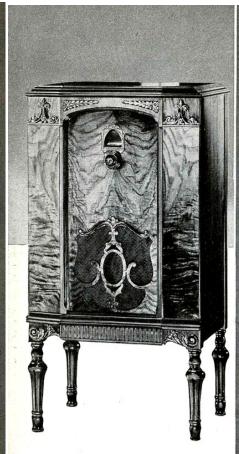
**Undated Brunswick Radio Corporation Catalogue – About 1931** 



Brunswick Radio — Model 12
7-tube Super-Heterodyne circuit in artistic highboy cabinet of matched ribbon walnut. Enlarged cabinet, permitting development of fuller, richer tone, contains ALL modern radio developments: Variable-mu and Pentode tubes, Uni-Selector, Color-Tone Control, Turret-type Tuning Condenser, Full Range Volume Control, Power Detector, and 9-inch Dynamic Speaker.

For 85 years Brunswick have been leading stylists in cabinet design; and through experience have learned to attain MUSICAL QUALITY in cabinet construction.

Price \$89.50 complete with Brunswick tube



Brunswick Radio — Model 16
7-tube Super-Heterodyne circuit in acoustically perfect lowboy console cabinet of matched ribbon walnut includes ALL modern radio developments: Variable-mu and Pentode Tubes, Uni-Selector, Color-Tone Control, Turret-type Tuning Condenser, Full Range Volume Control, Power Detector, and 12-inch Dynamic Speaker.

Warner Bros. tremendous resources and acoustical skill that pioneered the Vitaphone have been applied to the development of MUSICAL QUALITY in Brunswick Reproducing Instruments. Price

\$99.50

complete with Brunswick tubes

# The RADIO RECEIVER

### that represents an investment of \$40,000,000

Brunswick's 1929 Radio Receiver is an entirely NEW instrument . . . a unit of entertainment that embodies ALL the time-tried principles of radio reception, amplification, and reproduction . . . and ALL the NEW features of 1929 radio engineering. It is the LAST WORD in cabinet design . . . and is backed by an investment of \$40,000,000 by one of the foremost manufacturing organizations of its kind in the world, 84 years in the forefront of American Industry.

Built to meet the high standards of a great music house, this new radio was subjected to a Critical Test for Tone that proves its superiority beyond a doubt. Ask your Brunswick dealer to demonstrate this Test for you. « « «

The Model 14 Brunswick Radio Receiver pictured here is a nine-tube unit of the tuned radio frequency type, operating directly and entirely from the electric light socket. Its tremendous amplification renders the set sensitive enough to reach out and bring in distant stations, while its unusual selectivity separates stations easily in the most congested areas.

Single Dial Control . . . Volume Control that assures marvelous variation of volume gradually from zero to maximum . . . and Loudspeaker of the electro-dynamic type combine to make instant selection of any station and "bring it in" with a naturalness and fidelity of tone unsurpassed in any receiver on the market today. Come in and hear it played!

An instrument worthy in every way to bear the name "Brunswick" and at a price never before thought possible for a quality radio.

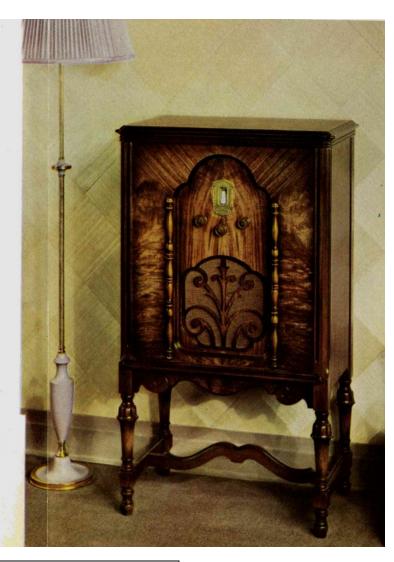
## BRUNSWICK RADIO

PRICE

TUBES EXTRA

(MODEL 14)

An artistically beautiful lowboy console with center and side panels finished in butt Walnut mounted with top piece of matched ribbon Walnut. Less hand carved. A beautifully designed curvilinear stretcher adds to its strength and appearance. Metal fittings matched throughout. Exterior dimensions of the cabinet are 44 inches high, 2534 inches wide, and 16 inches deep.



**Brunswick Folder Dated 6/17/1929** 





Brunswick Radio Corporation Catalogue – about 1931



Brunswick Radio—Model 17
9-tube Super-Heterodyne circuit in lowboy cabinet of matched ribbon walnut. Unusually distinctive in appearance. Enlarged speaker and greater number of tubes permit greater volume. Instrument contains ALL modern radio developments: Variable-mu and Pentode Tubes, Uni-Selector, Color-Tone Control, Turret-type Tuning Condenser, Automatic Volume Control, Power Detector, and De Luxe 12-inch Dynamic Speaker.

Brunswick MUSICAL QUALITY is made possible throngh every scientific laboratory aid being placed at the command of Brunswick engineers in the designing of radio circuits.

Price
\$139.50
complete with
Brunswick tubes

Brunswick Radio with Panatrope Model 33

7-tube Super-Heterodyne circuit combined with the Brunswick Panatrope in distinctive lowboy cabinet of American walnut. Reproducing both electrically recorded and broadcast programs with utmost naturalness, this model contains ALL modern radio developments: Variable-mu and Pentode Tubes, Uni-Selector, Color-Tone Control, Turrettype Tuning Condenser, Full Range Volume Control, 12-inch Dynamic Speaker, noiseless electric motor, and electro-magnetic pickup.

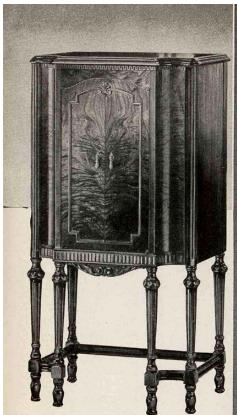
Brunswick was the first manufacturer to create a complete unit of entertainment for the home combining radio and electrical record reproduction in one instrument.

Price \$149.50

complete with Brunswick tubes



Open View -- Brunswick Radio With Panatrope -- Model 31 -- Closed View



### Brunswick Radio - Model 24

9-tube Super-Heterodyne circuit in one of the most exquisite, acoustically-perfect highboy cabinets ever designed. Matched ribbon walnut throughout. In addition to beautiful cabinet design and workmanship, this superior instrument contains ALL modern radio developments: Variable-mu and Pentode Tubes, Uni-Selector, Color-Tone Control, Turret-type Tuning Condenser, Automatic Volume Control, and De Luxe 12-inch Dynamic Speaker.

Brunswick's huge factory resources, enabling them to produce every unit in the manufacture of their instruments, will always guarantee their high standard of MUSICAL QUALITY.

Price
\$169.50
complete with
Brunswick tubes

Brunswick Radio — Model 25
The ultimate in cabinet and chassis design, this II-tube instrument is capable of receiving broadcasts from short-wave foreign stations situated thousands of miles away in addition to long-wave domestic stations. Highboy cabinet of butt walnut contains, of course, ALL modern radio developments: Super-Heterodyne circuit, Variable-mu, Pentode, and Screen-grid Tubes; Uni-Selector, Color-Tone Control, Turret-type Tuning Condenser, Automatic Volume Control, and De Luxe 12-inch Dynamic Speaker.

By these facts you will know why Brunswick Instruments set the standard for home entertainment and that there IS a difference in the MUSICAL QUALITY of a Radio.

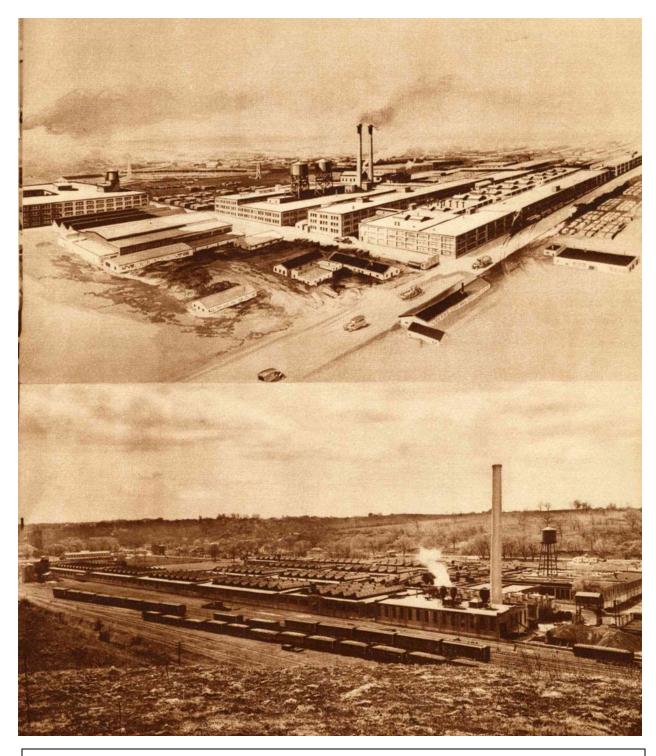
Price \$225.00



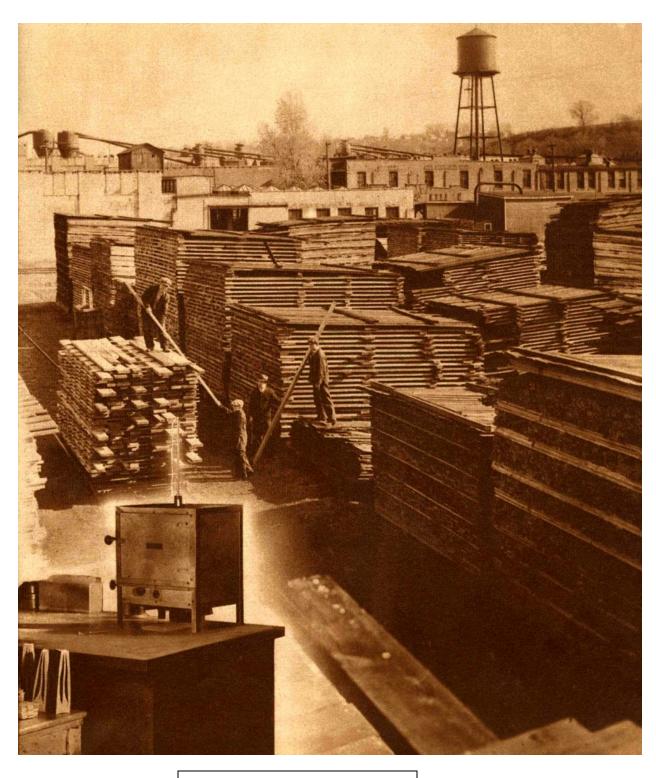
Open View -- Brunswick Automatic Panatrope With Radio -- Model 42 -- Closed View



**Brunswick Radio Model B15 -- For Battery Operation** 

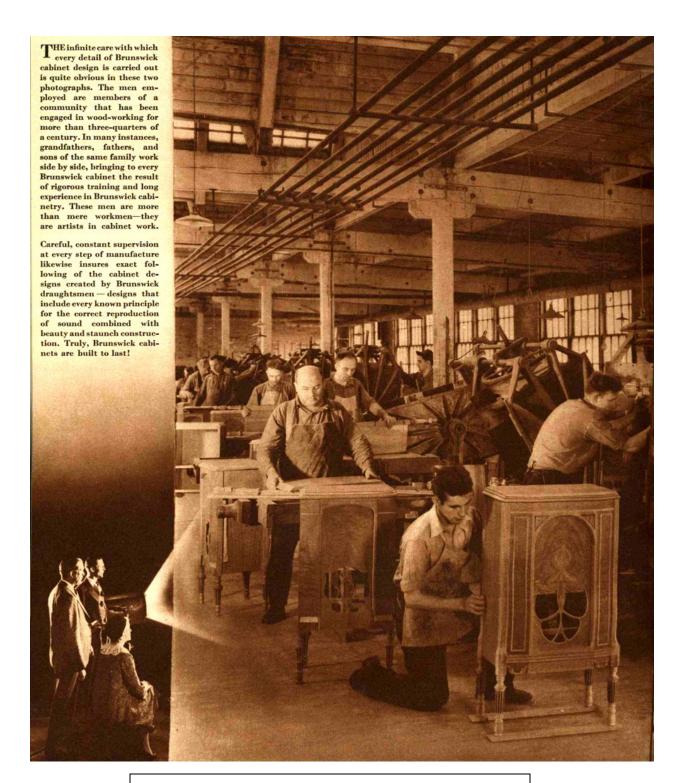


From 5/11/1931 Brunswick Factories -- Top: Muskegon, Michigan; Bottom: Dubuque, Iowa

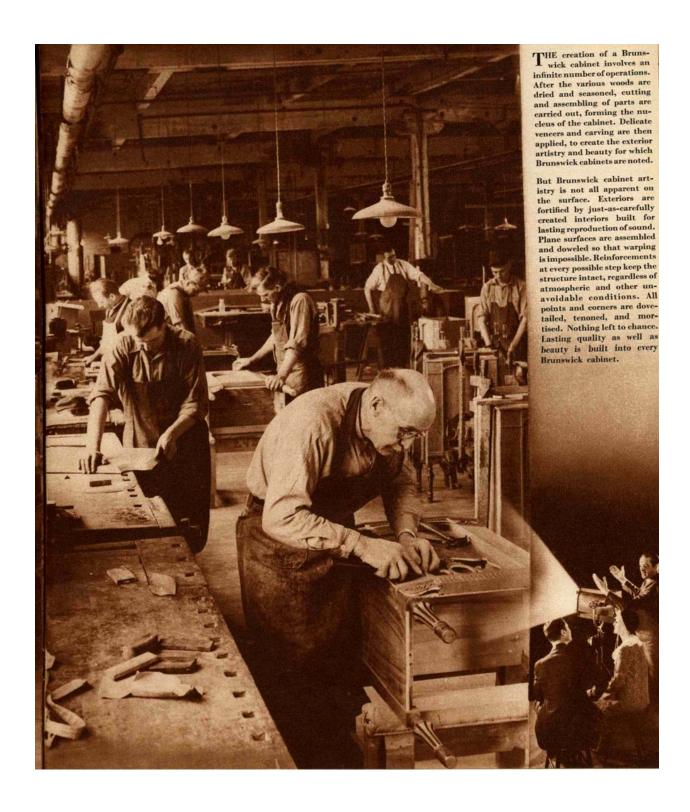


Lumber Drying In The Open Air

O NE of the principal reasons for the world-wide popu-larity of Brunswick instruments lies in the fact that as much care is taken in designing, building, and testing cabinets as circuits. It is common knowledge that one is as important as the other in achieving musical quality. Hence the Brunswick policy of producing every unit in the manufacture of their instruments in Brunswick facof Brunswick engineers and acoustical experts. It permits them to design and build each part of an instrument in close relation to every other part so that the result is both acoustically and artistically perfect. Brunswick's eighty-six years of wood-craftsmanship is ap-parent in every Brunswick cabinet. Exteriors reflect the cabinet. Exteriors reflect the careful workmanship of men trained in the Brunswick tradition. Interiors are designed and built so that reproductive quality remains unimpaired even under the most variable conditions of humidity and temperature.



**Constructing Cabinets for the Model 17 Brunswick Radio** 

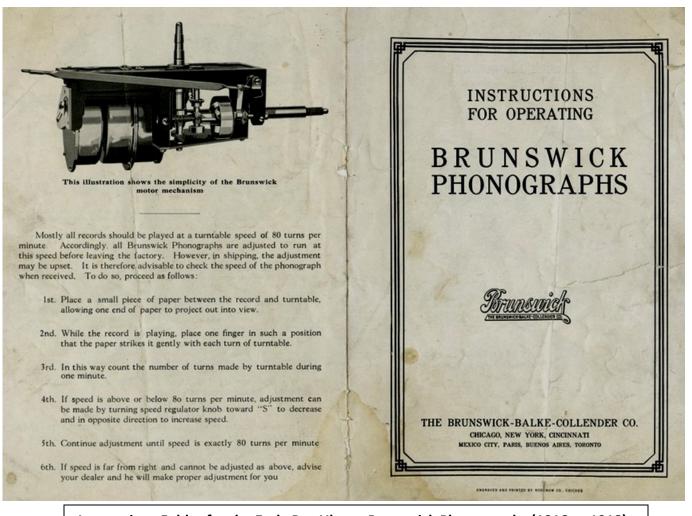




Top: Punch Presses for the Metal Parts for Brunswick Radios and Panatropes.

Bottom: Drying Room. After Each Cabinet is Given a Final Coat of Lacquer, and
Before the Chassis is Installed, Each Unit is Dried in a Heated Drying Room.

AFTER the cabinets emerge from the drying process, they are ready for the final operation—the installation of the chassis. This photograph shows an "assembly line," where the completed chassis are placed inside the units to create Brunswick reproducing musical instruments for the home. Then, as proof positive that Brunswick instruments are able to "stand up" under any and every conceivable oper-ating condition, units are shipped to every locality in the country and subjected to the country and subjected to rigid "road tests." In loca-tions crowded with local sta-tions, in notorious radio "dead spots," in communi-ties with poor power service, in remote sections far from any reliable broadcasting sta-tion and in territories share tion, and in territories where any combination of these handicaps appear, Brunswick instruments have proved their inherent quality by consistent performance—and that there IS a difference in the musical quality of a radio.



Instructions Folder for the Early Pre-Ultona Brunswick Phonographs (1916 to 1918)

### To Operate, Adjust and Lubricate Brunswick Phonographs



Large Reproducer

### Refer to Fig. 1.

- (A) Showing position of Large Reproducer for playing Pathe Records
- (B) Jewel Point in position for playing.

See that Phonograph is set in level position; if not, the reproducer is apt to slide over the record when playing Pathe Records.



### Showing How to Lubricate Motor

Figure shows turntable removed and motor suspended to Motor Board. Turntable can readily be lifted from center spindle. Should it stick, lift with one hand on side and tap center spindle gently with small hammer and it will come off easily.

Figure shows arrows pointing to the various places which should be oiled. A motor under ordinary use should be lubricated once every two months. Oil should be used sparingly. Oil, if used to excess, would be of no use, as it would simply overflow into the cabinet. In order to obtain the best results from the phonograph it is necessary that all parts of mechanism be kept clean and well lubricated at all times. Particular attention should therefore be given to these instructions.

given to these instructions.

The main springs which operate the phonograph mechanism are supplied with lubricant when assembled, and should, under ordinary use, be sufficient for many years. All Brunswick Phonographs are carefully oiled and otherwise lubricated before they leave the factory; however, it is advisable to oil the mechanism again when received and before it is set up for playing.

If the phonograph mechanism should at any time develop a peculiar noise when the record is playing or when the phonograph is being wound, it indicates that the main springs are in need of lubricant. In a case of this kind it is recommended that you notify your nearest dealer for attention.

Rewinding after playing first record is not necessary, but it will be found more convenient than to allow the phonograph to run down completely before rewinding. Furthermore, this method of rewinding the phonograph would cause less strain on the main springs and naturally prolong the life of the spring.

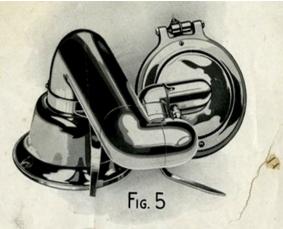
Winding spring too tight will cause an unnecessary.

Winding spring too tight will cause an unnecessary strain and cause breakage.

### CAUTION

In cold weather allow machine to become thoroughly acclimated to the room before winding. If springs are wound when cold they will break.

DO NOT OVER-WIND SPRINGS. A few turns after each record will get best results and add much to the life of the springs. OVER-WINDING IS DANGEROUS.



### Large Reproducer

Showing same in reclining position where it is entirely out of the way

This same position can be had also with the Small Reproducer but same must be in position as shown in Fig. 2. Then it can be lifted and folded backwards in reclining position.

Should Small Reproducer be in position as shown in Fig. 3, turn it sideways to the right and fold it over out of the way.

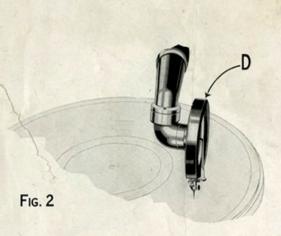
For lubricating motor do not use ordinary oil, as it may become gummy and handicap the free operation of the motor. Advise the use of Brunswick Superfine Motor oil.

The worm gear of the motor should be lubricated occasionally with ordinary vaseline instead of oil.

### For Regulating Speed of Motor

### Refer to Fig. 6.

(*J*) Indicates speed regulator which is operated by turning the pointer to S or F which indicates Slow and Fast. Motors are adjusted at factory that when the pointer is in the center of the dial, same is to be run at 80 revolutions per minute when playing.

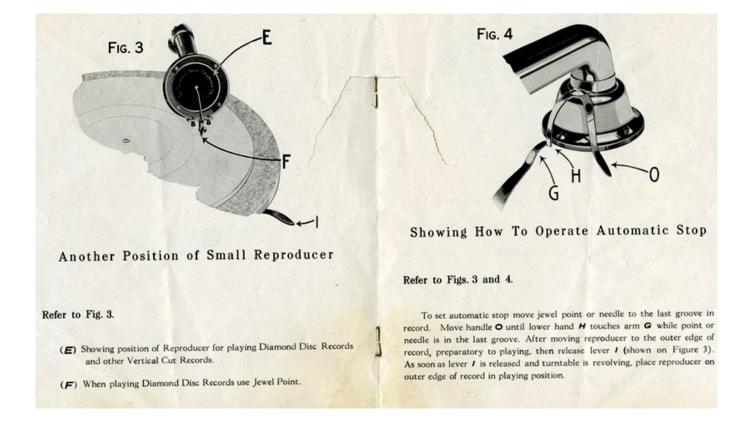


### Small Reproducer

### Refer to Fig. 2.

(D) Showing position of Small Reproducer for playing Lateral Cut Records, such as the Victor and Columbia.

For playing Diamond Disc Records, see Figure 3.





# Instructions for Playing All Records Correctly With The New Brunswick "Ultona" Reproducer

As illustrated and explained herein.

Attention is called to the fact that the tone arm and Reproducer have four different movable parts which must be adjusted to various positions for playing the different makes of records.

The first movable part consists of the main arm which fits into the elbow which sets onto the flange that is screwed to the top of the phonograph cabinet and has a forward and backward movement. This portion of the arm must be pushed back when playing Pathe and all vertical cut records and also when playing Victor, Columbia and all lateral cut records. When playing the Edison record this portion of the arm must be pulled forward.

The second movable part consists of the weight which is inserted in the rear portion of the balance arm. This weight must be pulled forward when playing all Pathe and vertical cut records; also for playing Victor, Columbia and other lateral cut records. When playing the Edison record the arm is pulled forward and this weight must be adjusted to the extreme back end of the balance arm.

The third movable portion consists of the Reproducer proper which revolves on the front end of the balance arm and is to be adjusted as indicated hereafter for playing the various records as shown in Figs. 2, 3, 4, 5 and 6.

The fourth movable portion consists of that portion of the Reproducer which plays the Pathe, Victor, Columbia and all lateral and vertical cut records and is to be adjusted as illustrated in Figs. 4 and 5.

See that phonograph is set in level position.

Both the Victor and Pathe needle clamp screws must be screwed up tight when playing any record, to avoid rattling.

## Instructions for Placing Reproducer on Tone Arm

(See illustration, Fig. 1)



FIG. 1

Place Reproducer as shown above and push backward over the tone arm so that the locking pin will snap over notch into groove at point where shown by **ARROW** in the above illustration.

In this groove the Reproducer can easily be turned into three different positions for playing all makes of records.

There are three notches in this groove for holding Reproducer in position for playing the various makes of records.

See that phonograph is set in level position; if not, the reproducer is apt to slide over the record when playing Pathe records.

Both the Victor and Pathe needle clamp screws must be screwed up tight when playing any record, to avoid rattling.

### Instructions for Placing Reproducer in Proper Position for Playing

### Pathe Records



Fig. 2 shows Reproducer immediately after locking pin has been put in groove, from which position it can be turned to the left for the three different playing positions.



FIG. 3

This illustration shows the Reproducer turned one-quarter to the left, locking pin into the first notch. The Reproducer is now in position for playing Pathe and other vertical cut records.

Note—Use ball point for playing Pathe records. This point can be removed and replaced with other points to suit the record if desired.

Weight (C) in balance arm must be towards front for playing Pathe and other vertical cut records.

The tone arm proper (B) must also be pushed back into the elbow for playing the above records.

Note A-Shows locking pin which locks Reproducer in place.

Note B ... Tone arm must be moved all the way back.

Note C.—Balance weight is to be moved forward when playing Pathe records.

Both the Victor and Pathe needle clamp screws must be screwed up tight when playing any record, to avoid rattling.

### Instructions for Placing Reproducer in Proper Position for Playing

### Victor Records



FIG. 4

Fig. 4—This illustration shows the Reproducer after same has been turned one-quarter turn to the left, from position shown in Fig. 3, and is in the right position, after the stylus bar containing playing point has been turned downward as shown in Fig. 5, for playing Victor, Columbia and all other lateral cut records.

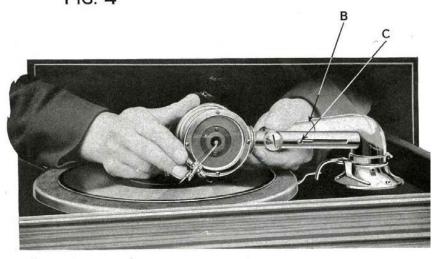


FIG. 5

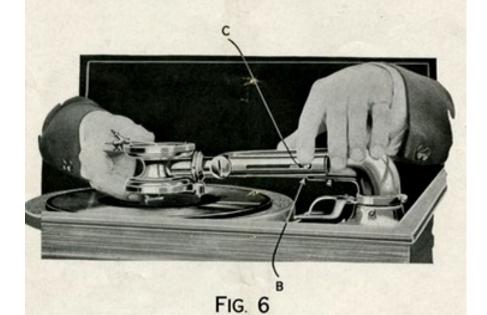
This view shows Reproducer and playing point in correct position for playing Victor, Columbia and all other lateral cut records.

Note—Weight (C) in balance arm must be towards front when playing Victor, Columbia and all other lateral cut records.

The tone arm proper  $(\boldsymbol{B})$  must also be pushed back into the elbow for playing the above records.

# Instructions for Placing Reproducer in Proper Position for Playing

# Edison Records

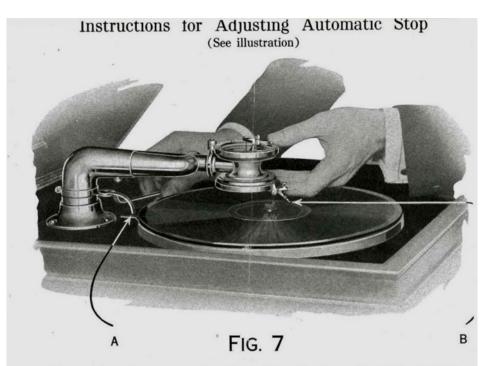


This illustration shows Reproducer turned one-quarter turn from position shown in Fig. 5 and is then ready for playing Edison records.

The Reproducer for playing Edison records is supplied with a diamond point and no change of needle or point will be necessary.

Note.—When playing Edison records the balance weight (C) must be moved all the way back in the balance arm and the tone arm proper (B) must be moved forward the entire distance. This is necessary so that the diamond point will center with the turntable spindle or center of the record.

6



To set automatic stop move handle as shown in above illustration so that curved arm of automatic stop touches the part extending beneath turntable shown by  $A_{RROW}$   $\boldsymbol{A}$  while point of needle in Reproducer is in inner groove of record you want to play (see  $A_{RROW}$   $\boldsymbol{B}$ ) and automatic stop is adjusted.

After moving Reproducer to starting point of record (first outer groove) and releasing brake in front of turntable, machine will then be ready to play and stop automatically.

FOR CHANGING NEEDLE POINT WHEN PLAYING VICTOR, COLUMBIA OR OTHER LATERAL CUT RECORDS





Shows the Reproducer turned upward and illustrates how the needles can be very readily removed and replaced. When needle is replaced turn Reproducer back in position as shown by Fig. 5.

# Illustration Shows Brunswick Two-Spring Motor

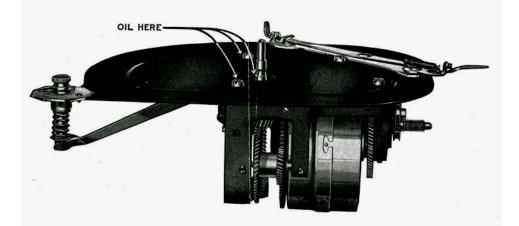


Figure shows turntable removed and motor suspended to Motor Board. Turntable can readily be lifted from center spindle.

Figure shows arrows pointing to the various places which should be oiled. A motor under ordinary use should be lubricated twice a year. Oil should be used sparingly. Oil, if used to excess, would be of no use, as it would simply overflow into the cabinet. In order to obtain the best results from the phonograph it is necessary that all parts of mechanism be kept clean and well lubricated at all times. Particular attention should therefore be given to these instructions.

All Brunswick Phonographs are carefully oiled and otherwise lubricates before they leave the factory.

Rewinding after playing first record is not necessary, but it will be found more convenient than to allow the motor to run down completely before rewinding, furthermore, this method of rewinding the motor would cause less strain on the main springs and naturally prolong the life of the spring.

Winding spring too tight will cause an unnecessary strain.



#### Instructions for Playing All Records Correctly With

## The New Brunswick Single "Ultona"

As illustrated and explained herein



T HE BRUNSWICK ULTONA consists of two main parts; first, the tone and balance arm which is fastened to the phono-



graph cabinet as shown on right; second, the reproducer which snaps into position on front end of balance arm illustrated on left.

The balance arm contains a movable weight which must be pulled forward when playing Brunswick and all records other than Edison. When playing Edison records the arm is pulled forward and weight pushed to the extreme back of the balance arm.

The Reproducer proper revolves on the front end of the balance arm and is to be adjusted as indicated hereafter for playing the various records as shown in Figs. 2, 3, 4, 5 and 6.

#### IMPORTANT NOTE

All records should be played at about 80 revolutions per minute—which is the proper speed. Speed indicator at left of turn-table may4 not always be properly adjusted. It is therefore advisable to verify the revolutions per minute by placing a small piece of paper under outer edge of record which will enable you to count the revolutions per minute and regulate the speed properly regardless of where indicator points.

#### Important!

See that Phonograph is set in level position.

Both needle clamp screws must be screwed up tight when playing to avoid rattling.

### Instructions for Placing Reproducer on Tone Arm

(See Illustration, Fig. 1)

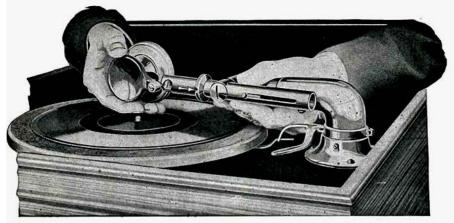


FIG. 1

Place Reproducer as shown above and push backward over the tone arm so that the locking pin will snap over notch into groove at point where shown by **ARROW** in the above illustration.

In this groove the Reproducer can easily be turned to the different positions for playing the various makes of records.

There are notches in this groove for holding the Reproducer in position for playing the various makes of records. See that plunger is in the proper notch so that Reproducer is exactly in proper position.

Both needle clamp screws must be screwed up tight when playing to avoid rattling.

Instructions for Placing Reproducer in Proper Position for Playing

### Brunswick and Other Records

Played with Steel or Fibre Needles



FIG 2

Fig. 2—This illustration shows the Reproducer after same has been turned one-half turn to the left, from position shown in Fig. 1, and is in the right position, after the stylus bar containing playing point has been turned downward as far as possible as shown in Fig. 3, for playing Brunswick and all other records played with steel or fibre needles.

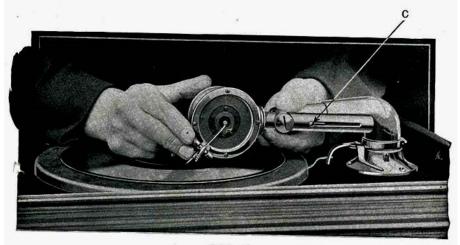


FIG. 3

This view shows Reproducer and playing point in correct position for playing Brunswick and all other records using steel or fibre needles.

Note—Weight (C) in balance arm must be towards front when playing Brunswick Records and all others played with steel or fibre needles.

The tone arm proper (B) must also be pushed back into the elbow for playing the above records.

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Instructions for Placing Reproducer in Proper Position for Playing



## Pathe Records

(Hill and Dale)

Fig. 4 shows Reproducer immediately after locking pin has been put in groove, from which position it can be turned to the left for the two different playing positions.





FIG. 5

This illustration shows the Reproducer turned one-quarter to the left, locking pin into first notch. The Reproducer is now in position for playing Pathe and other vertical cut records.

Note—Use ball point for playing Pathe records. This point can be removed and replaced with other points to suit the record if desired.

Weight (C) in balance arm must be towards front for playing Pathe and other vertical cut records except Edison.

Note A—Shows locking pin which locks Reproducer in place.

Note C—Balance weight is to be moved forward when playing Pathe

Both needle clamp screws must be screwed up tight when playing to avoid rattling.

Instructions for Placing Reproducer in Proper Position for Playing

# **Edison Records**

(Hill and Dale)



FIG. 6

This illustration shows the Reproducer in position for playing Edison Records.

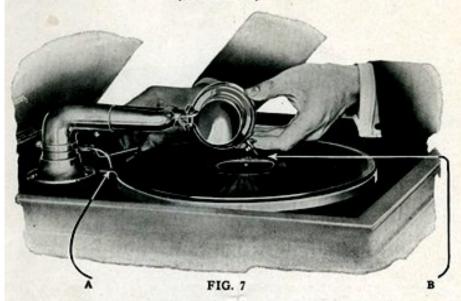
When playing Edison records use Jewel point furnished for that purpose.

Note—When playing Edison records the balance weight (C) <u>must be</u>

<u>moved all the way back</u> in balance arm, as shown in above illustration, Fig. 6.

6

# Instructions for Adjusting Automatic Stop



To Set Automatic Stop—Before starting machine, place point of needle in extreme inner or last groove of record, holding it steady with left hand. With right hand move handle of Automatic Stop, as shown above, until the curved arm touches part marked "A." Lift Reproducer, start motor and let needle point down carefully on outer edge of record (starting point) after turntable has attained its maximum speed.

Do not place Reproducer on record before starting, as by doing so a very disagreeable sound is created until proper speed is reached.

For changing needle point when playing Brunswick and all other Records using steel or fibre needles.

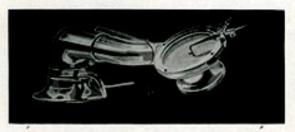


FIG. 8

Shows the Reproducer turned upward and illustrates how the needles can be very readily removed and replaced. When needle is replaced turn Reproducer back in position as shown by Fig. 6. Form 260 20m 7-27 LK

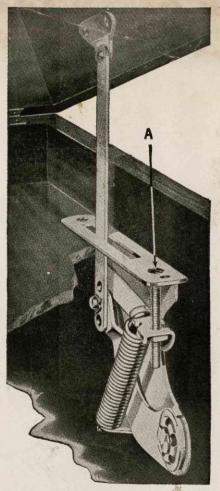
# Instructions for Adjusting the Brunswick Automatic Stay Arm

The Brunswick Automatic Stay Arm has but one adjustment which is accessible from the outside and is to be used in case cover lifts too hard, or does not stay in position required.

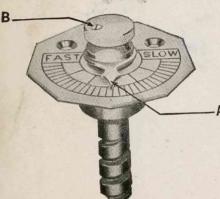
If cover lifts too hard simply turn screw A to *left* until cover raises and lowers as desired.

If cover does not stay in position turn screw A to *right* until right tension is obtained.

The Brunswick Automatic Stay Arm is positive in action and simple in construction, requiring no other attention.



### Brunswick Speed Regulator



To adjust Brunswick's Speed Regulator put a small piece of paper under record, then place needle on record and start motor.

As motor revolves count the revolutions and by moving arrow A to the right or left increase or decrease speed until motor is revolving 80 times to the minute.

Should Arrow A be out of position after proper speed has been obtained, loosen Screw B. This will release Arrow A which can be centered without changing speed of motor. After centering arrow A, again tighten screw B, and speed regulator is adjusted.

The Brunswick-Balke-Collender Co. 623-633 South Wabash Ave., Chicago

# Important~

JSE with alternating current, 110 volts, 50 to 60 cycles only. Do not attempt to use with direct current. Do not use with alternating current of a different frequency than shown above or you may ruin the motor.

Do not tamper with the mechanism. If the motor does not operate satisfactorily take it to your Brunswick dealer.

Several years of extensive scientific research work by leaders in the electrical field was necessary to perfect this motor to the point where it would conform to the high standard required for Brunswick products.

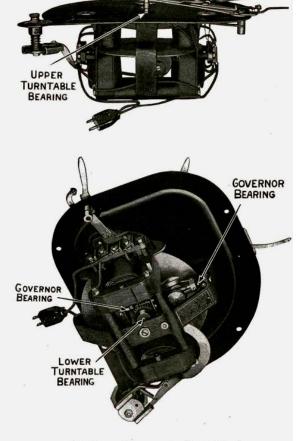
You will appreciate the quiet operation, constant even speed, reliability and convenience of this new motor.



Lubricate Every Six Months

Use Brunswick Phonograph Oil only.

Brunswick dealers can supply this lubricant, which should be used sparingly.



Only 4 Places to be Oiled

Upper turntable bearing may be oiled, at point indicated, without removing motor from cabinet. Motor must be removed from cabinet to oil the lower turntable bearing and bearings on the ends of the governor shafts. Only points indicated by arrows should be oiled.

Remember—Only 4 places to be oiled and use Brunswick Phonograph Oil

# Operating Instructions

-FOR-

Brunswick-Radiolas 260 & 360



## THE BRUNSWICK-BALKE-COLLENDER CO.

General Sales Office, Radio Phonograph Division
623 SO. WABASH AVENUE CHICAGO, ILL.

#### BRUNSWICK RADIOLAS 260 AND 360

#### INTRODUCTION

Brunswick Radiolas 260 and 360 are radio broadcast receiving instruments utilizing the Super-Heterodyne principle, which provides unusual simplicity of operation, selectivity and sensitivity. They are designed for reception over the broadcast wavelength band 220 to 550 meters (approximately 550 to 1350 kilocycles). The cabinet contains the operating mechanism, a loudspeaker, and the battery equipment, as well as a loop antenna, making the set completely self-contained. The receiving apparatus is mounted on an attractive horizontal panel in a drawer in the right hand portion of the cabinet, and a compartment for the necessary batteries is provided in the rear to which access is provided through a removable panel door.

### EQUIPMENT

Under the above name there is included the following apparatus:

1 Receiving Set with loop and loud-speaker

6 Radiotrons, Model UV-199

#### BATTERIES REQUIRED

In addition, there are required the following "A," "B" and "C" batteries which may be obtained from the dealer:

- (A) Six ordinary dry cells, 11/2 volts each, for lighting the filaments. They should be connected in two parallel groups, each of three cells in series; such as:
- 6 Eveready Dry Cell Radio "A" Batteries (21/2" x 61/2")
- 6 Manhattan Red Seal Dry Cells  $(2\frac{1}{2}" \times 6\frac{1}{2}")$ 6 Burgess No. 6 Dry Cells  $(2\frac{1}{2}" \times 6")$ 6 Burgess Super Six Dry Cells  $(2\frac{1}{2}" \times 6")$ 6 Ray-O-Vac No. 1211 Dry Cells  $(2\frac{1}{2}" \times 6")$

- 6 Ace No. 6 Dry Cells (21/2" x 61/2")
- 6 Columbia Ignitor No. 6 Dry Cells (21/2" x 61/2")

#### OR EQUIVALENT

- (B) Four 221/2 Volt Plate Batteries connected in series, such as:

- 4 Eveready No. 766 Plate Batteries (65%" x 4" x 3")
  4 Burgess No. 2156 Plate Batteries (65%" x 4" x 3")
  4 Burgess No. 2158 Plate Batteries (63%" x 4" x 3")
  4 Ray-O-Vac No. 2151 Plate Batteries (65%" x 4" x 3")
  4 Kwik-Lite No. 225 Plate Batteries (63%" x 4" x 3")

- 4 Ace No. 115 Plate Batteries (6\%" x 4" x3")
  4 Yale No. 1512-V Plate Batteries (6\%" x 4" x 3")
  4 Bright Star No. 15-90 Plate Batteries (6\%" x 4" x 3")
- 4 Novo No. 268 Plate Batteries (61/2 x 4" x 3")

#### OR EQUIVALENT

Two 45 volt plate batteries may be used instead of four 221/2 volt blocks if desired, such as:

- 2 Eveready No. 767 Plate Batteries (45 volts) (6" x 65/8" x 3")
- 2 Burgess No. 2306 Plate Batteries (45 volts) (776" x 656" x 3")
- 2 Ray-O-Vac No. 2301 Plate Batteries (45 volts) (81/2" x 67/8" x 31/4")
- Novo No. 276 Plate Batteries (45 volts) (8" x 61/2" x 3")
- 2 Kwik-Lite No. 245 Plate Batteries (45 volts) (81/4" x 63/4" x 3")
- 2 Yale No. 3045-V Plate Batteries (45 volts) (8" x 65%" x 3")

### OR EQUIVALENT

- (C) One 41/2 Volt Negative Grid Bias or "C" Battery, such as:
- 1 Eveready No. 771 Negative Grid Bias Battery (4" x 3" x 1¾")
  1 Ray-O-Lite No. 231-R Negative Grid Bias Battery (4" x 3" x 1 7/16")
  1 Burgess No. 2370 Negative Grid Bias Battery (4" x 3" x 1¾")
  1 Vol. No. 212 No. 213 No. 2
- Yale No. 313 Negative Grid Bias Battery (4" x 3" x 13/8")
- 1 Bright Star No. B-34-17 Negative Grid Bias Battery (4" x 3" x 13%")
- 1 Novo No. 288 Negative Grid Bias Battery (4" x 3" x 13/8")

### OR EQUIVALENT

### INSTALLATION

LOCATION OF SET-Brunswick Radiolas 260 or 360 may be located in any part of the home, the location being determined principally by artistic considerations and convenience in operation. In a building of steel construction an advantage with respect to signal strengths is often gained by placing the instrument near a window, where the shielding effect of the structure is felt less than in the interior.

INSTALLING BATTERIES-All connections from the set to the batteries are made through a multiple conductive cable in the back of the cabinet. There will be found, tied to this cable, four short wires or "jumpers," and two longer ones; all of which should be removed and carefully preserved.

Remove the Radiotrons from their sockets while making the battery connections. Place the "A," "B" and "C" batteries in their respective compartments. The six "A" cells are arranged in two groups of three each. Connect the two lugs on the yellow wires tagged "+A" to the center terminals of the first cells in these two groups. Then connect the cells of each group "in series" by means of the short jumpers, securing one end of each jumper to the center terminal of one cell and the other end to the outside terminal of the next cell. Next, connect the two lugs on the black wires with yellow tracer tagged "-A" to the two remaining outside terminals.

CAUTION-Under no circumstances should the lugs on a wire connected to one terminal of a battery or cell be permitted to come into contact with the other terminal or with lugs connected thereto. Such contact produces what is known as a "short-circuit," and will seriously diminish the useful life of a battery or cell if it is allowed to remain even a few seconds.

Before proceeding further with the connection of the batteries, test the correctness of the "A" battery connections. To place the Radiotrons in the set for this purpose, it is necessary to raise the operating panel into the posi-Before inserting the Radiotrons, turn the "Battery Setting" tion shown. knob to "Off." Remove the six Radiotrons from their individual cartons. Insert one in each of the six tube sockets by placing it in the opening, turning the tube until the pin in the base drops into the slot, and then turning to the right as far as the pin will permit. Make sure that the Radiotrons are securely held by pulling slightly on each. Now pull out the filament switch. Turn the "Battery Setting" knob about a quarter turn to the right to 40 and the "Volume Control" knob about half a turn to the right to 60. Observe the six Radiotrons and make sure that the filament of each is glowing with a dull yellow color. This may best be seen by looking through the lower portion of the glass bulb, next the base. It may be necessary to darken the room or at least to shield the Radiotrons from direct illumination to see the glow of the filaments.

Having determined that all the filaments are glowing, extinguish the filaments by pushing in the filament switch, remove the Radiotrons, and proceed with the connection of the "B" battery. As has already been indicated, this may consist of either four 22½ volt blocks or two 45 volt blocks. In the former case divide the four blocks into two groups of two each and connect each group "in series" by means of the longer jumpers furnished with the cable. It will now be noted, upon examination of the battery cable, that two pairs of "B" battery wires emerge from the cable at two separate points, one wire in each pair being tagged "+B" and the other "-B." The colors in one pair are red and maroon, red being "+B"; while the colors in the other pair are maroon and black with red tracer maroon being "+B." Connect the wires of each pair to the highest free "+" terminal and to the free "-" terminal of the nearer 45 volt block or group. Do not connect wires of different pairs to the same 45 volt block or group.

Connect the green wire tagged "+C" to the "+" or "Pos" terminal of the "C" battery, and the black wire with green tracer tagged "-C" to the "-4½" terminal.

All possible care should be taken to keep the battery connections tight, as failure to do so may result in objectionable noises or complete inoperativeness of the set.

When the battery connections have been completed, replace the panel door of the battery compartment. Finally, replace the Radiotrons in their sockets, release the stay-arm which supports the operating panel, and lower the panel into its normal position.

#### OPERATION

FILAMENTS—Pull out the filament switch—turn the "Battery Setting" knob clockwise from "Off" toward "100." With new batteries, the pointer should be set approximately at 40 on the dial. As the batteries grow older, this setting must be gradually advanced toward "100." Always use the lowest setting which will give good signals in order to prolong the useful life of the filaments.

Turn the "Volume Control" knob U clockwise from "soft" to "100." Push in the jack switch S, which puts the output of the second stage amplifier into the loud-speaker.

TUNING—The tuning of Brunswick Radiolas 260 and 360 involves only the manipulation of the two "Station Selector" knobs—a simple operation if the principle described below becomes thoroughly understood.

The two gold-tipped pointers have approximately the same setting, i.e., if one is set at 10 or 30, etc., the other is at or near 10 or 30, etc.

When searching for stations, the settings of which are not known, proceed as follows: Set "Station Selector I" gold-tipped pointer at, say, 10 (referring to the metal dial scale under the paper scale). Move "Station Selector II" gold-tipped pointer slowly over the scale near 10, say from 5 to 15. If no signals are heard, there is no station working on that wavelength. Then set "Station Selector I" pointer at, say, 12 and slowly move "Station Selector II" from about 7 to 17. If again signals are heard, set "Station Selector I" gold-tipped pointer at, say, 14, and move "Station Selector II" slowly from about 9 to 19. If still no signals, repeat this process increasing the setting of "Station Selector I" in small steps until the whole scale has been covered. It will be noted after the first few trials that when "Station Selectors I and II" are in resonance, a slight breathing sound is heard indicating that the set is working properly and in resonance.

After hearing a signal, carefully adjust both "Station Selectors I and II' to best result.

If no stations are heard, the loop door should be turned 90 degrees from

where it was during the preceding adjustments, and the turning process just described should be repeated.

CONTROL OF VOLUME—As Brunswick Radiolas 260 and 360 are very sensitive receivers, it is often found advisable to reduce the loud-speaker volume. This may be accomplished by employing one or all of the following methods.

- (1) Turn the "Volume Control" knob away from "100" toward "soft."
- (2) Pull out the jack switch.
- (3) Turn the loop door.

INTERFERENCE—Signals from an interfering radio station may be eliminated or at least minimized by either of the following methods:

- (1) Turn "Station Selector II" pointer either to the right or left, by approximately ¾ to 1 inch, to find another position of this control where the desired station will be again heard. The setting of "Station Selector II," nearer the left end of the scale is technically the "lower wavelength peak," and the other the "upper wavelength peak." Two settings of this nature will be found for all broadcast stations, and the separation between them become, greater and greater for the higher end of the scale, i.e., nearer the right-hand end. It is recommended that "Station Selector II" be consistently set on the "lower peak" in the usual manipulation of the set. When interference is encountered, try the upper peak and use the one at which minimum interference occurs.
- (2) Turn the loop door. For every transmitting station, there is one position at which the signal strength will rise to a maximum, and another at right angles at which it is at a minimum. Set the loop door where best results are secured, trying to locate a position where the desired signals come in, but the interference does not.

#### USE OF AN INDOOR ANTENNA

Brunswick Radiolas 260 and 360 are sufficiently sensitive for all ordinary radio reception, giving loud-speaker signals over great distances even on its self-enclosed loop. Those desirous of reaching greater distances may use one of the following methods:

- (1) Use a larger loop, say one wound on a frame 20 to 24 inches square. There should be about 10 to 14 turns of almost any size copper wire larger than, say, No. 20 B & S gauge, spacing the wires so that they are at least 1/4 inch between centers. Disconnect the jumper between terminals 2 and 3, on the terminal board in the rear of the set. Connect the loop between terminals 2 and 4 by means of a pair of flexible wires brought out through the round notch provided for this purpose in the battery panel door.
- (2) Use an indoor antenna connected to terminal 1 or 2. Do not ground or tune the antenna. The antenna may be 20 to 30 feet long and may be located wherever convenient, say under the carpet or around the picture moulding. Leave jumper connected between terminals 2 and 3.
- (3) Use a ground wire connected to terminal 1 or 2. Never use this method and method (2) above at the same time. Leave jumper connected between terminals 2 and 3. In connection with these schemes, it will usually be found that if the set is located on the ground floor of the home, method (2) will be the better of the two; while if the set is on an upper floor, method (3) will be better.
  - (4) Head telephones may be plugged into the jack if desired.

When using any one of these methods, the settings of "Station Selector I" will change from those found when using the enclosed loop.

#### GENERAL INFORMATION

PAPER DIALS—Four paper dials for each of the "Station Selectors" will be found with the set, three each in the envelope for the Instruction Book, and one each in place on the panel. To put another "Station Selector I" dial in place, grasp pointer with left hand, turn and remove the knurled nut which holds it in place. Grasp the two knobs on the end of the clamp wire, pinch them together, and pull the clamp wire free from its retaining ring. Remove the old dial and place a new "Station Selector I" dial on the panel, taking care properly to line up the central hole and the notch on the left-hand side. Replace clamp wire, pointer and knurled nut in the order mentioned.

Follow a similar proceedure for "Station Selection II."

CALIBRATION OF SET—The paper dials provide a means of recording the settings of the "Selectors" for the various stations. Once recorded, the pointers may be reset at any later time to these positions, and if the station is broadcasting it will be heard, providing it is within the daylight or night range of the receiver. After a station is tuned in as above, mark the positions of one of the tips of each of the "Station Selectors" as well as the call letters of the station. It is suggested that only the "lower peak" of "Station Selector II" be recorded.

Note that in a few places throughout the country, particularly in the cosmopolitan areas, there may be two or more stations assigned to the same wavelength or frequency, but apportioned different hours of the day so that they will not be "on the air" at the same time. For example, Philadelphia, Pa., has two stations, WOO and WIP, working on the same wavelength, but dividing time. Under such conditions the "Station Selector" settings should be the same for both stations.

Each of the "Station Selectors" is provided with four pointers, in order that stations of nearly the same setting may be recorded on the dials without crowding the markings. It is suggested that the gold-tipped pointers be reserved for wavelength or frequency markings, and that the station settings be recorded on the three remaining pointers in the following order: Long black pointer, right short pointer and left short pointer. Mark as many stations as possible on the long black pointer. When a new station is tuned in, quite close to one already recorded, then use the short pointers for the markings.

The only precaution to be observed when making these markings is to see that the set is not located near any large metal objects, such as a steam radiator, or that it is not near any aerials or electric wiring. Such positions may cause changes in the settings of "Station Selector I."

BATTERIES AND RADIOTRONS—The only parts ordinarily needing replacement will be the batteries and Radiotrons.

The "Battery Setting" knob should be kept as near the "Off" position as possible, without decreasing the signal strength or destroying the quality of reception. The six Radiotrons should be used at all times. It is inadvisable to remove the sixth Radiotron when the jack switch is pulled out to reduce volume so that only five are in service. Both these precautions make for more economical use of the batteries and Radiotrons.

**MAINTENANCE**—Very little maintenance will be required on Brunswick Radiolas 260 or 360, outside of an occasional oiling of a few of the parts. The oiling operation is important, and should be done about once every six months. To oil the moving parts, turn both "Station Selector"

pointers as far to the right as possible, and open the panel of the set haltway. Then place one drop of good grade oil, such as typewriter oil, on each of the following parts of both "Station Selectors":

- (1) On the front and rear bearings of the shafts, where the shafts pass through the black moulded sub-panels.
  - (2) On the bushings in the panel which hold the "Selector" knobs.
  - (3) On the universal or ball joint just back of the "Selector knob shaft.
- (4) On the spring bearing of the slanting knob shaft (which spring bearing presses against the black insulation collar).

POLISHING THE EXTERIOR—If finger marks result from handling the cabinet, a little rubbing or polishing with furniture polish will restore the finish. The polish chosen should be of a grade which will leave the cabinet free from an oily appearance. Use a soft piece of cotton cloth or cheese-cloth, free from lint. Saturate the rag lightly with a small quantity of the polish and rub it on the surface to be restored. Wipe thoroughly dry with clean, dry cheesecloth, making sure that all crevices are dry and clean. The surface should then be rubbed until the finish is restored to a dull gloss.

#### POSSIBLE DIFFICULTIES

Should any trouble develop in the use of Brunswick Radiolas 260 or 360 it will in all probability be due to loss of life of the Radiotrons or to the exhaustion of the batteries. As the batteries grow old, they decrease in voltage and increase in resistance. After the Radiotrons have been used for a long time, their filaments tend to lose emission. If the difficulty appears to be elsewhere, it is recommended that the services of the dealer from whom the set was purchased be enlisted.

If the set becomes inoperative, try interchanging the Radiotrons. The second tube from the left is the important one and it is well to replace it before looking elsewhere for tube trouble. Try substituting this tube for either the third, fourth or fifth Radiotron. It is of advantage to keep a few spare Radiotrons UV-199 on hand to meet emergencies.

There are several indications by which the user may determine when the filament or "A" batteries are becoming exhausted. These are low filament brilliancy, weak signals, and distortion, the signals becoming less and less recognizable. When it is found necessary to turn the "Battery Setting" knob up to "100," and the operation of the set is still unsatisfactory, it is a definite indication that the filament batteries are exhausted.

When fresh batteries are installed for the first time, listen to the loud-speaker while pushing the jack switch in and out. Sharp "clicks" will be heard in the loud-speaker. Do this sufficiently to learn just how loud the click should be. If the "B" batteries have become fairly well exhausted, these clicks will become practically imperceptible—an indication that they need replenishing.

An indication of exhausted "C" batteries may be had by listening to the loud-speaker with no stations tuned in. If the loud-speaker gives forth a continuous noise, the battery needs renewal. The noise may be either a high-pitched whistle, a high cracking sound, or a low gurgling murmur. Frequently the whistle is so high as to be above the range of audibility for some persons but, in any case, the noise becomes more audible as the batteries age.

# Catalogue and Price List

# Porunswick

# PHONOGRAPH AND MOTOR PARTS

(Effective July 1st, 1925)

Please order each repair part by name and number, so that we may give you prompt service.

Send all orders to branch that serves you.

### THE BRUNSWICK-BALKE-COLLENDER CO.

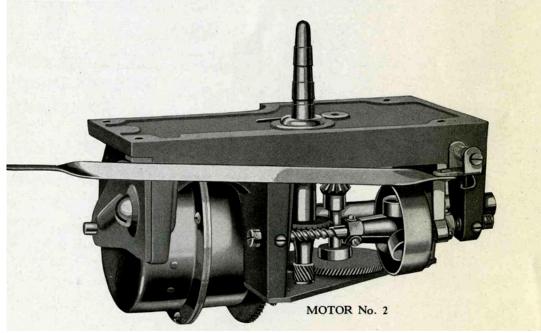
623 So. Wabash Avenue

CHICAGO, ILL.

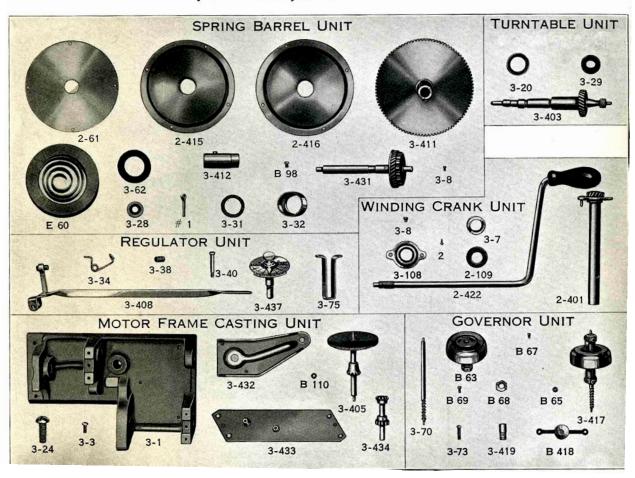
Form 532-1 FM 8-25-25 Printed in U. S. A

# Repair Parts for the No. 2 Motor

Part No.	Description	List Price	Part No.	Description	List Price
	SPRING BARREL UNIT	-		MOTOR FRAME CASTING UNIT	
E60	Main Spring	\$1.08	3-1	Motor Frame Casting	\$ 2.75
2-61	Spring Plate	.17	3-434	Bevel Gear Shaft	.84
2-415	Left-hand Spring Barrel (screw holes not	18	3-405	Intermediate Shaft and Gear	
	threaded)	.50	B110	Intermediate Shaft Washer	
2-416	Right-hand Spring Barrel (screw holes		3-433	Motor Frame Plate	.50
	threaded)	.50	3-3	Motor Frame Plate Screws	.08
3-411	Main Gear with Hub	.92	3-432	Outer Motor Plate	.34
3-412	Winding Sleeve with Spring Hook	.34	3-24	Outer Motor Plate Screws	.08
3-431	Spring Drive Shaft	.75	DOM: E	DECLI ATOD INIT	1 10
3-8	Spring Barrel Shaft Set Screw	.08		REGULATOR UNIT	
3-62	Spring Barrel Felt Washer		3-437	Speed Tabulator	1.0
3-32	Collar on Spring Shaft		3-75	Equalizer Lever Yoke	
B98	Spring Shart Felt Dust Washer	.08	3-408	Speed Regulator Arm	.2
3-28	Spring Shaft Dished Washer		3-38	Equalizer Felt Insert	.08
3-20	Spring Barrel Cotter Pin	.08	3-34	Speed Regulator Spring	.08
	Spring Darrer Cotter I m	.00	3-40	Speed Regulator Screw	.08
	GOVERNOR UNIT	Die.		TURNTABLE UNIT	
3-419	Governor Shaft Bearings	.17		The second secon	
3-70	Governor Shaft		3-403	Turntable Shaft	
B63	Governor Protector		3-29	Turntable Shaft Felt Washer	
B68	Governor Spring Nut	.10	3-20	Turntable Shaft Lubricating Cap	.08
B418	Governor Spring and Weight	.10	Town will		1
B69	Governor Nut Set Screw	.08	77	WINDING CRANK UNIT	130
B67	Governor Spring Screw		2-422	Winding Crank complete	1.0
B65	Governor Spring Washer	.08	2-401	Crank Shaft	.9
3-73	Governor Bearing Set Screw	.08	3-7	Winding Shaft Collar	.1
3-417	Governor complete	1.67	3-8	Winding Shaft Collar Set Screw	.0
			3-108	Escutcheon only	.1.
			2-109	Escutcheon Washer	.0
		1 3	2	Escutcheon Screws	.0

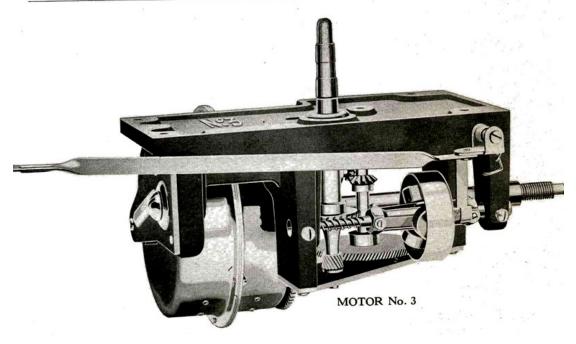


### Repair Parts for the No. 2 Motor

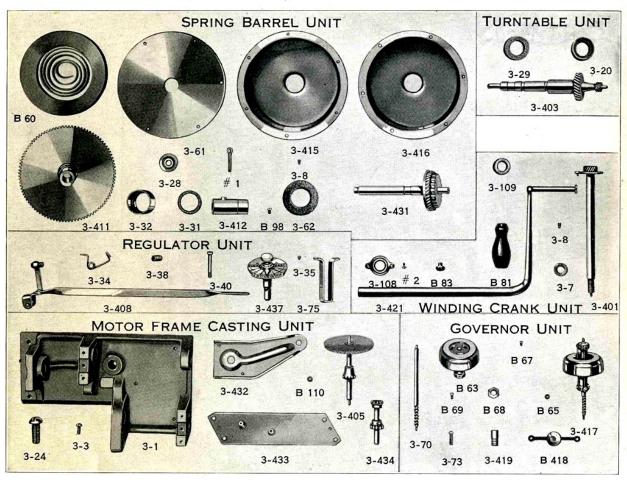


# Repair Parts for the No. 3 Motor

Part No.	Description	List Price	Part No.	Description	Pric
B60 3-61 3-415	SPRING BARREL UNIT  Main Spring. Spring Plate Left-hand Spring Barrel (screw holes not	\$1.25 .17	3-405 B110 3-433 3-3 3-432	Intermediate Shaft and Gear. Intermediate Shaft Washer. Motor Frame Plate. Motor Frame Plate Screws. Outer Motor Plate	.5
3-416	threaded)	.50	3-24	Outer Motor Plate Screws  REGULATOR UNIT	-
3-411 3-412 3-431 3-8 3-62	Main Gear with Film Winding Sleeve with Spring Hook Spring Drive Shaft. Spring Barrel Shaft Set Screw Spring Barrel Felt Washer. Collar on Spring Shaft.	.34 .75 .08	3-437 3-75 3-408 3-38 3-34	Speed Tabulator, N. P. Equalizer Lever Yoke. Speed Regulator Arm. Equalizer Felt Insert. Speed Regulator Spring.	1
3–32 3–31 B98 3–28	Spring Shaft Felt Dust Washer Spring Shart Plate Screws Spring Barrel Plate Screws Spring Barrel Cotter Pin	.08 .08	3-40 3-35	Speed Regulator Screw. Equalizer lever yoke screw.  TURNTABLE UNIT	
3–419 3–70	GOVERNOR UNIT  Governor Shaft Bearings	.67	3–403 3–29 3–20	Turntable Shaft. Turntable Shaft Felt Washer. Turntable Shaft Lubricating Cap.	
B63 B68 B418	Governor Protector. Governor Spring Nut. Governor Spring and Weight.	.59 .10 .10	3-421 3-422	WINDING CRANK UNIT Winding Crank and Screw Winding Crank complete	. 1.
B69 B67 B65 3–73	Governor Nut Set Screw Governor Spring Screw Governor Spring Washer Governor Searing Set Screw Governor complete.	.08 .08	B81 B83 3-401 3-7	Winding Shoft Collar	
3-417	MOTOR FRAME CASTING UNIT Motor Frame Casting		3–8 3–108 3–109 2	Escutcheon only Escutcheon Washer	

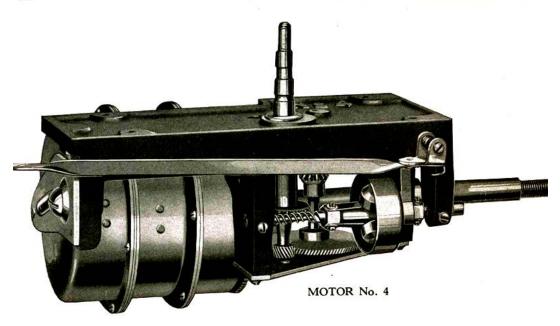


### Repair Parts for the No. 3 Motor

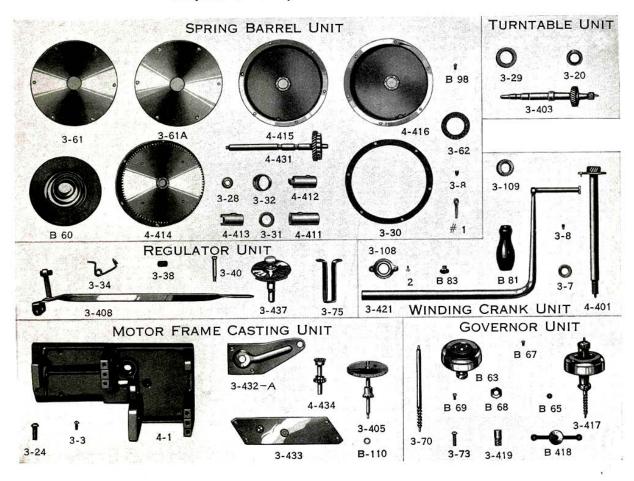


# Repair Parts for the No. 4 Motor

Part No.	Description	List Price	Part No.	Description	List Price
	SPRING BARREL UNIT			MOTOR FRAME CASTING UNIT	
B60	Main Spring	\$1.25	4-1	Motor Frame	\$2.92
3-61	Center Spring Plate	.17	3-434	Bevel Gear Shaft	.84
4-415	Left-hand Spring Barrel (screw holes not	W.536	3-405	Intermediate Shaft and Gear	.92
	threaded)	.50	B110	Intermediate Shaft Washer	.08
4-416	Right-hand Spring Barrel (screw holes	120,500	3-433	Motor Frame Plate	50
	threaded)	.50	3-3	Motor Frame Plate Screw	.08
4-414	Main Gear, with Sp. B'l (screw holes th'd'd)	1.00	3-432	Outer Motor Plate	34
3-61A	Outer Spring Plate	.17	3-24	Outer Motor Plate Screw	.08
4-412	Double Spring Barrel Sleeve	.50	The state	REGULATOR UNIT	1,90
4-413	Single Spring Barrel Sleeve	.42		REGULATOR UNIT	Via 100.00
3-30	Spring Barrel Gasket	.08	3-437	Speed Tabulator	1.00
3-62	Spring Barrel Felt Washer	.08	3-75	Equalizer Lever Yoke	.08
4-411	Winding Sleeve with Spring Hook	.34	3-408	Speed Regulator Arm	.25
4-431	Spring Drive Shaft	.84	3-38	Equalizer Felt Insert	
3-8	Spring Barrel Shaft Set Screw	.08	3-34	Speed Regulator Spring	.08
3-32	Collar on Spring Shaft	.17	3-40	Speed Regulator Screw	.08
3-31 B98	Spring Shaft Felt Dust Washer Spring Barrel Plate Screw (extra long)	.08		TURNTABLE UNIT	
3-28	Spring Shaft Dished Washer	.08		TORNTABLE UNIT	
1	Spring Barrel Cotter Pin	.08	3-403 3-29 3-20	Turntable Shaft	1.25 .08 .08
	GOVERNOR UNIT			WINDING CRANK UNIT	
3-419	Governor Shaft Bearings			W: U C 1 16	1.17
3-70	Governor Shaft		3-421	Winding Crank and Screw	
B63 B68	Governor Protector		3-422	Winding Crank complete	
	Governor Spring Nut	.10	B81 B83	Winding Crank Screw	
B418 B69	Governor Spring and Weight	.10	4-401	Crank Shaft	
B67	Governor Spring Screw		3-7	Winding Shaft Collar	
B65	Governor Spring Screw		3-8	Winding Shaft Collar Set Screw	.08
3-73	Governor Bearing Set Screw	.08	3-108	Escutcheon only	.13
3-417	Governor complete		3-109	Escutcheon Washer	
0-41/	Goternor complete:	1.07	3-103		



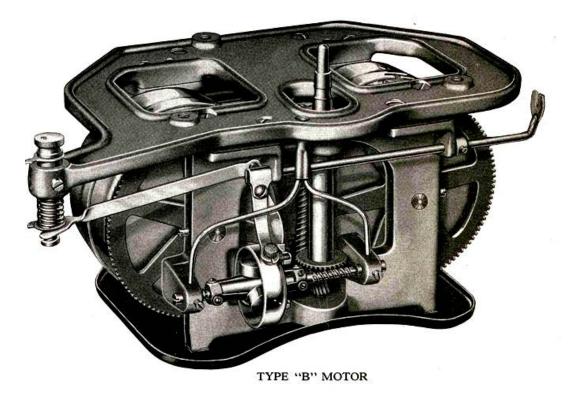
### Repair Parts for the No. 4 Motor



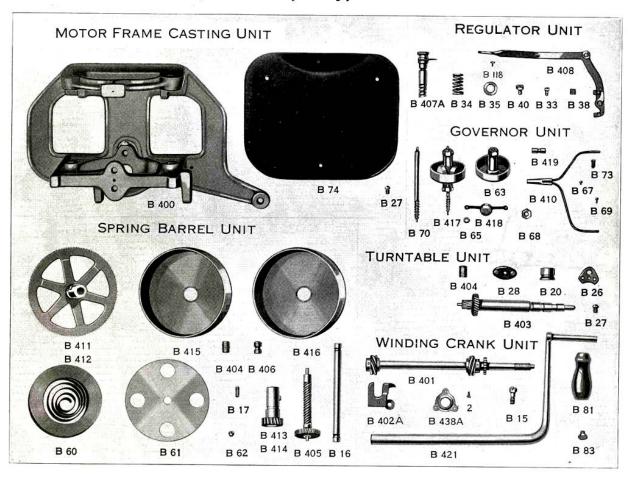
# Repair Parts for the Type "B" Motor

For 117, 217, 122, 127, 135, BR260, BR360, BR460 Stratford, Hampton and Cortez Models

Part No.	Description	List Price	Part No.	Description	List Price
	SPRING BARREL UNIT		-	MOTOR FRAME CASTING UNIT	
B60 B61 B416 B415 B411	Main Spring. Center Spring Plate. Left-hand Spring Barrel. Right-hand Spring Barrel. Right-hand Drive Gear with Hub and	.17 .50 .50	B400 B74 B27	Motor Frame complete. Oil Drip Pan Oil Drip Pan Screw. REGULATOR UNIT	\$ 4.59 .25 .08
B412 B16 B413	Spring Rivet. Left-hand Drive Gear with Hub and Spring Rivet. Spring Barrel Shaft. Right-hand Winding Gear with Hub and Spring Rivet. Left-hand Winding Gear with Hub and	.92	B407A B34 B35 B408 B38	Indicator Knob and Screw Indicator Spring Indicator Flanged Washer Equalizer Lever Equalizer Felt Insert	.08
B414 B17 B405 B406	Spring Rivet. Left-hand Winding Gear with Hub and Spring Rivet. Spring Barrel Shaft Set Screw. Drive Shaft. Upper Drive Shaft Bearing.	.59 .59 .08 1.59	B33 B40 B11s	Indicator Pin Retaining Screw. Equalizer Lever Screw. Tabulator Set Screw. TURNTABLE UNIT	.08
B404 B62	Lower Drive Shaft Bearing Oil Plug Screw GOVERNOR UNIT	.08	B403 B20 B26 B404 B28	Turntable Shaft Upper Bearing. Turntable Shaft Upper Bearing. Turntable Upper Bearing Clamp. Lower Turntable Shaft Bearing. Turntable Shaft and Drive Shaft Lower	1.25 .17 .08 .08
B419 B70 B63 B68 B418	Governor Bearing and Ball. Governor Shaft. Governor Protector. Governor Spring Nut. Governor Spring and Weight.	.10	B27	Bearing Clamp Screw for Upper and Lower Bearing Clamp WINDING CRANK UNIT	.08 .08
B69 B67 B65 B73 B410 B417	Governor Nut Set Screw Governor Spring Screw Governor Spring Washer Governor Bearing Set Screw Governor Oil Tube Governor complete	.10 .08 .08 .08 .20 1.67	B421 B81 B9 B83 B422 B401 B438A	Winding Crank and Screw Winding Crank Handle Winding Pinion Pin Winding Crank Screw Winding Crank complete Crank Shaft Escutcheon and Washer (3-hole type)	1.25 .42 .08 .08 1.67 1.00 .20
B67 B65 B73 B410	Governor Spring Screw. Governor Spring Washer. Governor Bearing Set Screw. Governor Oil Tube	.08 .08 .08	B81 B9 B83 B422 B401	Winding Crank Handle Winding Pinion Pin Winding Crank Screw Winding Crank complete Crank Shaft.	le type)



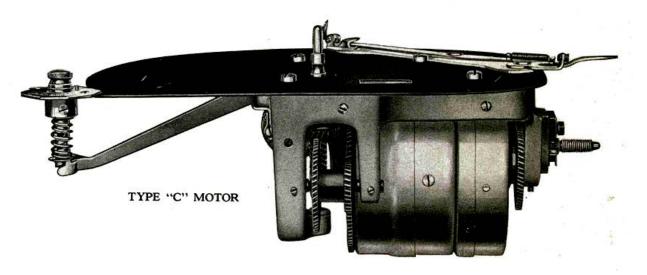
### Repair Parts for Type"B" Motor



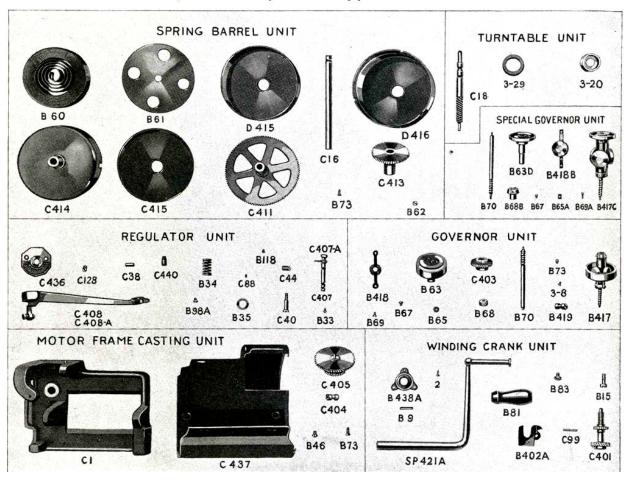
# Repair Parts for the Type "C" Motor

For 212, BR50, BR60, BR100, BR160, Queen Anne, Colonial, Raleigh, Tudor, Cortez, Cordova and Valencia Models

Part No.	Description	List Price	Part No.	Description	List Price
B60 B61 D415 D416 C414	SPRING BARREL UNIT Main Spring Center Spring Plate Right-hand Spring Barrel Left-hand Spring Barrel Spring Barrel Cover with Sleeve and Rivet.	.17 .50 .50	B46	Intermediate Gear Intermediate Gear Bearing Screws. Oil Drip Pan Oil Drip Pan Screws. REGULATOR UNIT	\$ .67 .08 .67 .08
C415 C411 C16 C413 B73 B62	Single Spring Barrel. Drive Gear with Hub and Spring Rivet. Spring Barrel Shaft. Winding Gear and Hub with Rivet. Spring Barrel Shaft Set Screws. Oil Plug Screw.	.50 .92 .34 .59		Indicator Indicator for Special Governor Indicator Dial Dial Plate Screw Indicator Spring Indicator Flanged Washer	.50 .50 .50 .08 .08 .08
B419 B63 B68 B418 B69 B67 B65 B73 C403	GOVERNOR UNIT Governor Bearing and Ball Governor Shaft Governor Protector Governor Spring Nut Governor Spring and Weight Governor Nut Set Screw Governor Spring Screw Governor Spring Washer Governor Bearing Set Screw	.67 .59 .10 .10 .08 .08	B33 C44 C40 C440 C88 C408 C408A B98A B118	Regulator Felt. Indicator Pin Retaining Screw Regulator Felt Retainer Regulator Arm Screw Regulator Felt Retainer and Felt Indicator Stop Pin Equalizer Lever Equalizer Lever for Special Governor Regulator Clamp Screw Tabulator Set Screw	.08 .08 .08 .08 .08 .34 .34 .08
3-8 B417	Governor Worm Gear	08	C18 3-29 3-20	TURNTABLE UNIT Turntable Shaft Felt Washer for Turntable Shaft Turntable Shaft Lubricating Cap	1.25 .08 .08
B417C B-70 B63D B418B B68B B67 B65A B69A	Special Governor Unit complete. Governor Worm Governor Protector. Governor Spring and Weight. Governor Spring Nut. Governor Spring Screw. Governor Spring Washer. Governor Nut Set Screw.	.67 .59 .10 .10	SP421A B81 B83 SP422A C401 B438A	WINDING CRANK UNIT Winding Crank and Screw Winding Crank Handle Winding Crank Screw Winding Crank complete Winding Shaft and Ratchet Escutcheon and Washer. (3-hole type)	1.00 .42 .08 1.42 .84
C1 C404	MOTOR FRAME CASTING UNIT Motor Frame Intermediate Shaft Bearing	2.92	2 B402A B9 C99 B15	Escutcheon Screws	.08 .34



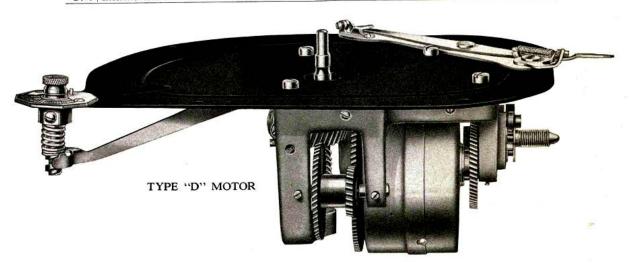
### Repair Parts for the Type "C" Motor



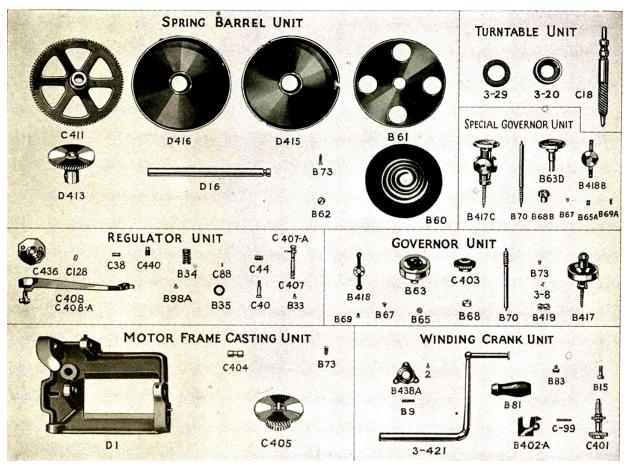
# Repair Parts for the Type "D" Motor

For 200, 207, 210 BR35, York, Eton, Navarre, Madrid, 14-7, Seville, 10-7

Part No.	Description	List Price	Part No.	Description	List Price
B60	SPRING BARREL UNIT	\$ 1.25	C405 B73	Intermediate Gear Intermediate Gear Bearing Screws	\$ .62
B61	Center Spring Plate	.17		REGULATOR UNIT	020
D416 D415	Left-hand Spring Barrel		C407	Indicator	.50
C411	Drive Gear with Hub and Spring Rivet	.92	C407A	Indicator for Special Governor	.50
D16	Spring Barrel Shaft	.34	C436	Indicator Dial	
D413	Winding Gear and Hub, with Rivet	.59	C128 B34	Indicator Spring	
B73 B62	Spring Barrel Shaft Set ScrewOil Plug Screws		B35	Indicator Flanged Washer	.08
1002	Oli Flug Screws		C38	Demilator Felt	1 .08
	GOVERNOR UNIT	1 8	B33	Indicator Pin Retaining Screw	.00
-020704-007		.17	C44 C40	Regulator Felt Retainer	
B419	Governor Bearing and Ball		C440	Regulator Felt Retainer and Felt	
B70 B63	Governor Snart			Indicator Stop pin	.0
B68	Governor Spring Nut	.10	C408	Fauslizer Lever	.3
B418	Governor Spring and Weight	.10		Equalizer Lever for Special Governor	.3
B69	Governor Nut Set Screw	.08	B98A B118	Regulator Clamp Screw	.0
B67	Governor Spring Screw	1 22	BIIS	Tabulator Set Screw	
B65 B73	Governor Spring Washer			TURNTABLE UNIT	
3-8	Governor Gear Set Screw	.08	C10	Turntable Shaft	1.2
C403	Governor Worm Gear	.50	C18 3-29	Turntable Shaft Felt Washer	
B417	Governor complete	1.67	3-20	Turntable Shaft Lubricating Cap	0
	SPECIAL GOVERNOR UNIT			WINDING CRANK UNIT	
3417C	Special Governor Unit complete	1.67	3-421	Winding Crank and Screw	1.0
B-70	Governor Worm	.67	Do.	Winding Crank Handle	4
B63D	Governor Protector	.59	B83	Winding Crank Screw	0
B68B	Governor Spring and Weight		3-422	Winding Crank complete	1.4
B67	Governor Spring Screw	.08	C401	Winding Shaft and Ratchet Escutcheon and Washer (3-hole type)	
B65A	Governor Spring Washer	.08	B438A	Escutcheon Screws	
B69A	Governor Nut Set Screw	.08	B402A	Spring Housing with Pawl	3
	MOTOR FRAME CASTING UNIT		B9 C99	Winding Pinion Pin Oil Wick for Crank Shaft	: :6
D1 C404	Motor Frame	2.75	B15	Winding Pawl Screw	.0



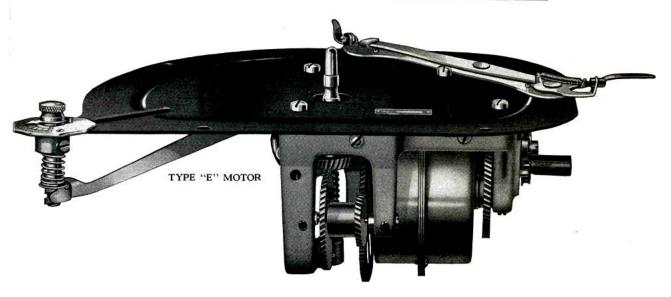
### Repair Parts for the Type "D" Motor



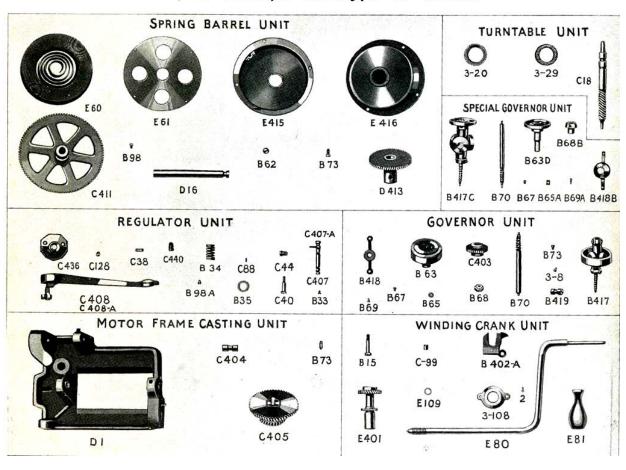
# Repair Parts for the Type "E" Motor

For 103, 105, BR30, Arden, Royal, Seville, 10-7 and 8-7 Models

No.	Description	List Price	Part No.	Description	List Price
-	MOTOR FRAME CASTING UNIT			SPRING BARREL UNIT	
DI	Motor Frame	\$2.75	E60	Main Spring.	\$1.09
C404	Intermediate Shaft Bearings	.17	E61	Center Spring Plate	.17
C405 B73	Intermediate Gear	.67	E415	Right-hand Spring Barrel (not threaded)	.50
B/3	Intermediate Gear Bearing Screws	.08	E416 C411	Left-hand Spring Barrel (threaded)	.50
	REGULATOR UNIT		D16	Drive Gear with Hub and Spring Rivet Spring Barrel Shaft	.92
C407			D413	Winding Gear and Hub, with Rivet	.50
C407A	Indicator. Indicator for Special Governor	.50	B73	Spring Barrel Shaft Set Screw	08
C436	Indicator Dial	.50	1002	Oil Plug Screw	.08
C128	Dial Plate Screw	.08	B98	Spring Barrel Plate Screw	.08
B34	Indicator Spring	.08		GOVERNOR UNIT	
B35 C38	Indicator Flanged Washer	.08		-	
B33	Regulator Felt	.08	B419 B70	Governor Bearing and Ball	
C44	Regulator Felt Retainer	.08	B63	Governor Shaft	.67
C40	Regulator Arm Screw	.08	B68	Governor Spring Nut	.10
C440	Regulator Felt Retainer and Felt	.08	B418	Governor Spring and Weight	10
C88 C408	Indicator Stop pin	.08	B69	Governor Nut Set Screw	.08
C408A	Equalizer Lever for Special Governor	.34	B67 B65	Governor Spring Screw	
B118	Tabulator Set Screw	.34	B73	Governor Spring Washer Governor Bearing Set Screw	.08
B98A	Regulator Clamp Screw	.08	3-8	Governor Gear Set Screw	.08
		1000	C403	Governor Worm Gear	.50
	TURNTABLE UNIT		B417	Governor complete	1.67
C18 3-29	Turntable Shaft	1.25		SPECIAL GOVERNOR UNIT	
3-29	Turntable Shaft Felt Washer Turntable Shaft Lubricating Cap	.08	B417C		14000
3-20	Turntable Shart Eubricating Cap	.08	B-70	Special Governor Unit complete Governor Worm	1.67
	WINDING CRANK UNIT		B63D	Governor Protector	59
E80	Winding Crank	.59	B418B B68B	Governor Spring and Weight Governor Spring Nut	.10
E422	Winding Crank complete	1.09	B67	Governor Spring Screw	.10
E81	Winding Crank Handle	.42	B65A	Governor Spring Washer	.08
E83 E401	Winding Crank Handle Screw	.08	B69A	Governor Nut Set Screw	.08
E109	Escutcheon Washer	.84			255
3-108	Escutcheon only	.10			
2	Escutcheon Screws	.08			
B15	Winding Pawl Screw	.08			
B402A C99	Spring Housing with Pawl Oil Wick for Crank Shaft	.34			



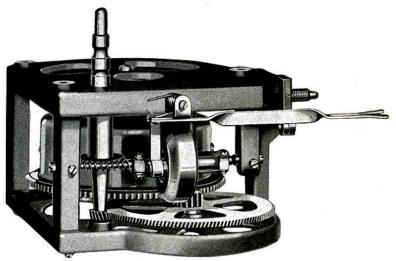
### Repair Parts for the Type "E" Motor



# Repair Parts for the Type "F" Motor

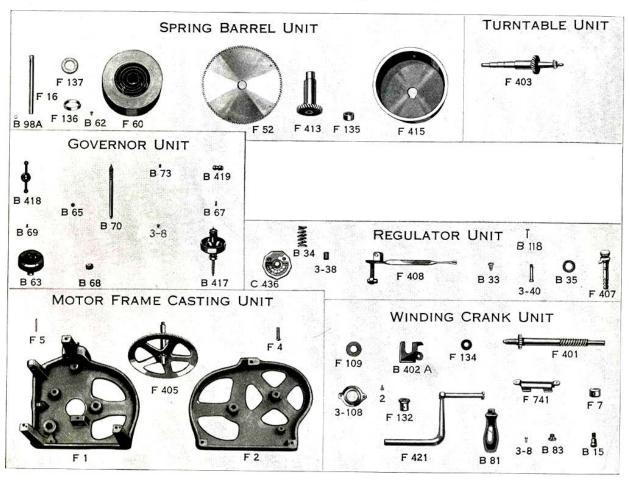
For 85, 95 and 101 Models

Part No.	Description	List Price	Part No.	Description	List Price
F60 F415 F52 F413 F16 B62 B98A F135 F136 F137	SPRING BARREL UNIT  Main Spring. Spring Barrel with Rivet. Spring Barrel Drive Gear Winding Gear and Hub. Spring Barrel Shaft Oil Plug Screw Spring Barrel Screws Spring Barrel Shaft Collar Oil Guard Ring. Felt Washer for Spring Barrel	.92 .92 .34 .08 .08	F407 C436 C128 B34 B33 B35 3-38 3-40 F408 B118	REGULATOR UNIT Indicator Indicator Dial Dial Plate Screw Indicator Spring Indicator Pin Retaining Screw Indicator Flanged Washer Equalizer Felt Insert Speed Regulator Screw Speed Regulator Arm Tabulator Set Screw	.59 .08 .08 .08 .08 .08
B419 B70 B63	GOVERNOR UNIT Governor Bearing and Ball. Governor Shaft. Governor Protector. Governor Spring Nut.	.17 .67 .59	F403	TURNTABLE UNIT Turntable Shaft	1.25
B68 B418 B69 B67 B65 B73 3-8 B417	Governor Spring and Weight Governor Spring and Weight Governor Nut Set Screw Governor Spring Screw Governor Spring Washer Governor Gearing Set Screw Governor Gear Set Screw Governor complete	.10 .10 .08 .08 .08 .08 .08 .08	F421 F422 B81 B83 F401 B402A 3-108 F109	Escutcheon Escutcheon Washer	1.00 .42 .08 1.09 .34 .13
F1 F2 F405 F4 F5	MOTOR FRAME CASTING UNIT Upper Motor Frame   Sold only as 1 unit . Intermediate Shaft and Gear. Motor Frame Screw. Dowel Pin	2.75 .92 .08 .08	F132 F134 3–8 F7 B15 2 F741	Winding Shaft Bushing Winding Shaft Thrust Washer Winding Shaft Set Screw Winding Shaft Collar Winding Pawl Screw Escutcheon Screws. Winding Crank Clip	.17 .08 .08 .10



TYPE "F" MOTOR

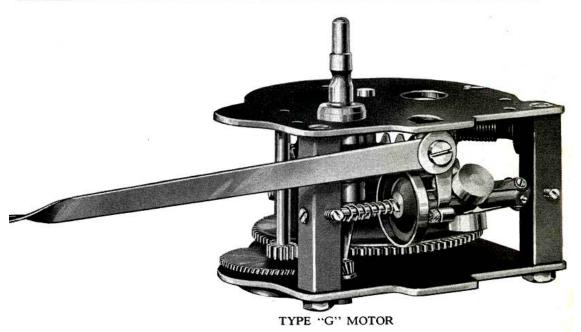
# Repair Parts for the Type "F" Motor



# Repair Parts For the Type "G" Motor

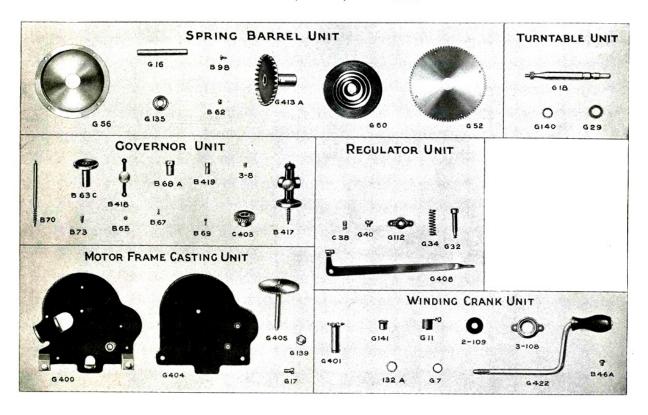
For Models No. 102, No. 104, Rex Portable

Part No.	Description	List Price	Part No.	Description	List Price
G60 G56 G52 G16	SPRING BARREL UNIT  Main Spring Spring Barrel Drive Gear Spring Barrel Shaft	.50 .42 .34	G405 G17 G139	Intermediate Gear Spring Shaft Screw Frame Post Nut. REGULATOR UNIT	.08
G413A B98 B62 G135	Winding Gear and Hub with Rivet Spring Barrel Screw. Oil Plug Screw. Spring Barrel Spacer Washer. GOVERNOR UNIT	.59	G32 G112 G34 G38 G40 G408	Regulator Screw Indicator Dial. Indicator Spring Regulator Felt Regulator Arm Screw Equalizer Lever.	.08 .08 .08
B419 B70 B63C B68A B418B B69 B67	Governor Bearing and Ball Governor Shaft. Disc and Stem. Governor Spring Nut. Governor Spring and Weight. Governor Nut Set Screw. Governor Spring Screw.	.17 .67 .34 .10 .10 .08	G18 G29 G140A	TURNTABLE UNIT Turntable Shaft Turntable Shaft Felt Washer. Spacer Sleeve for Turntable Shaft	1.25 .08 .08
B65 B73 3-8 C403 B417A	Governor Spring Washer Governor Bearing Set Screw. Governor Gear Set Screw Governor Worm Gear Governor Complete	.03 .03 .08 .50 1.67	G422 G401 G11 G7 B46A	Winding Crank complete Winding Crank and Pinion. Winding Shaft Spring. Winding Shaft Clip. Winding Shaft Spring Screw. Winding Shaft Washer.	.25 .08
G400 G404	MOTOR FRAME CASTING UNIT Upper Motor Frame Sold only as 1 unit	2.75	G132A 3-108 2-109 G141	Escutcheon Escutcheon Washer Eyelet	.10



## Repair Parts for the Type "G" Motor

For Models No. 102, No. 104, Rex Portable

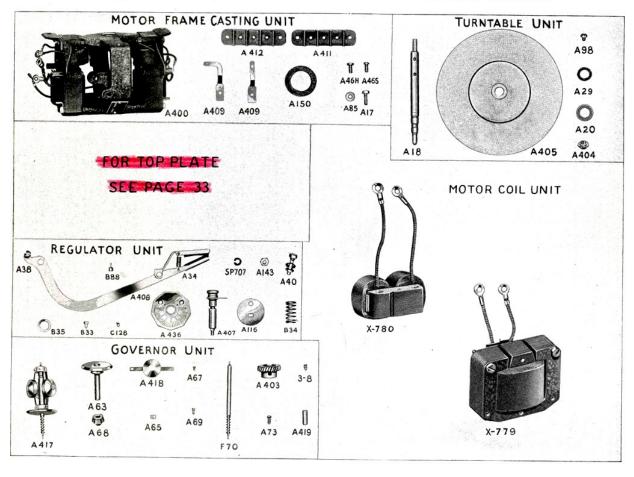


# Repair Parts for "G=30", "G=60" and "X=777" Electric Motors

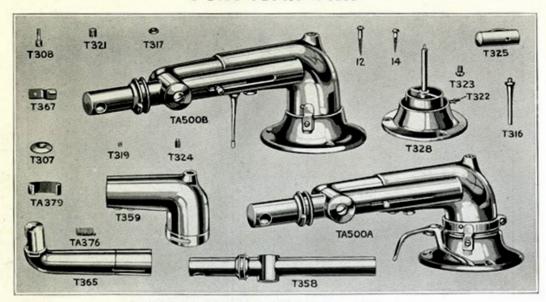
Part No.	Description	List Price	Part No.	Description	List Price
	GOVERNOR UNIT			TURNTABLE UNIT	
			A18		\$ 2.09
3-8	Governor Worm Gear Set Screw	\$ .08	A20	Turntable Shaft Lubricating Cap	.08
A63	Governor Disc	1.87	A29	Turntable Shaft Felt Washer	.08
A65	Governor Spring Washer	.08	A98	Screw for Disc	.08
A67	Governor Spring Screw	.08	A404	Bottom Bearing Screw with Lock Nut.	.08
A68	Governor Spring Nut and Screw	.13	A405	Disc and Hub Assembled	2.67
A69	Governor Nut Set Screw	.08	20000000		
F70	Governor Shaft	1.77		TOP PLATE UNIT	1
A73	Governor Bearing Set Screw	.08	A29	Top Plate Washer	.08
A403	Governor Worm Gear	1.64	B78	Motor Board Screw	.08
A417	Governor Complete	5.24	B79	Brake Rod Trip Screw	.08
A418	Governor Spring and Weight	.13	A86	Top Plate Screw	.08
A419	Governor Bearing and Ball	.42	A87	Top Plate Rubber Bushing	.08
		1 1	A88	Top Plate Felt Washer (Thick)	.08
	MOTOR FRAME CASTING UNIT	10	A88	Top Plate Felt Washer (Thin)	.08
A17	Long Screw for Terminal Boards	.08	A89	Top Plate Screw Spacer Bushing	.08
A46S	Slotted Screw for Inner Brush	.08	C97	Auto Stop Spring	.08
A46H	Hexagon Screw for Outer Brush	.08	C98	Auto Stop Brake Leather	
A46F1	Washer for Terminal Board Screws		B92	Auto Trim Arm	
A150	Large Felt Guard Washer		B423	Auto Stop Plate	.57
A400	Motor Frame		A425	Auto Stop Plate	1.50
A409	Inner Brush with Contact Tip		A426	Auto Start. Lever	.43
A409	Outer Brush with Contact Tip		A424	Large Plate with Rings and Knobs	3.2
A411	Right Hand Terminal Board		A427-	Large Flate with Kings and Knobs	0.2
A412	Left Hand Terminal Board	.34	1 G.E.	Small Plate	2.3
A412	Left Hand Terminal Doub.	.01	A427-	Small Place	
	REGULATOR UNIT	1 1	G.E.	Large Plate, Complete with Rings and	
	The same of the sa	7.400	G.E.	Knobs and Auto Stop	3.9
B33	Indicator Pin Retaining Screw	.08	X777	Inductor Disc. Motor, 60 Cycle with long	
A34	Equalizer Lever Spring	.08	2///	shaft, Regulator and Automatic Stop.	40.5
B34	Indicator Spring	.08	X-779		
B35	Indicator Flanged Washer	.08	A-//9	complete mounting for X-777 motor	8.4
A38	Equalizer Lever Felt	.08	X-780	Double coil U type core winding with	Si
A40	Regulator Arm Screw with Washer and	N 84	A-700	complete mounting for X-777 motor	8.4
	Nut	.10		complete modificing for it in motor	
B88	Indicator Pin	.08		FOR X-777 MOTOR ONLY	1
A116	Regulator Cam	.08			2.0
C128	Dial Plate Screw	.08	A18A	Turntable Shaft, Long	
A143	Nut for Indicator Shaft	.08	A408A	Equalizer Lever	
A407	Indicator	.50	A407A	Indicator Pin	
A408	Equalizer Lever	1.50	B34A		
A436	Indicator Dial	.50	A425B	Auto Stop complete	
SP707	Lock Washer for Indicator Shaft	.08	A86A	Ton Plote Screw	



## Repair Parts for "G=30" and "G=60" Electric Motors

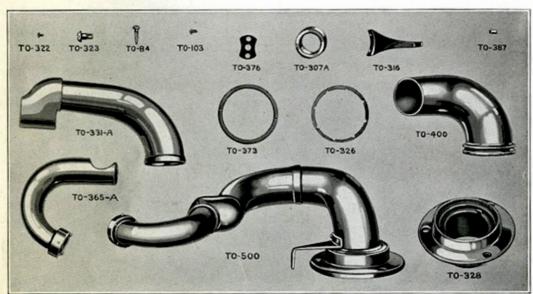


## Tone Arm Unit



#### Parts for Single and Double Ultona Arms

	For Die Cast Arms Only		T359 Main Arm Elbow \$2.67 T365 Front Elbow 1.59
T307	Balance Arm Washer	\$ .13	T367 Tone Arm Clip
T308	Sliding Screw	.08	TA500A Complete Tone Arm, with No. 12 Stop
T316	Automatic Stop Trip	.34	Handle11.12
T317	Lock Nut for Locking Screw	.08	No. 3-1/4" No. 8 RH Screw for attaching Tone
T319	Pivot Bearing Locking Screw	.08	No. 3-1/4" No. 8 RH Screw for attaching Tone Arm to Cabinet
	Tone Arm Pivot Bearing Screw		For Brass Arms Only
T322	Small Lock Screw for Tone Arm Base	.08	Same parts as used on die cast arm except that
T323	Balance Arm Screw	.08	they are listed TA.
T324	Telescope Arm Locking Screw	.08	
T325	Balance Arm Weight	34	TA376 Counter Weight Spring for Balance Arm Weight\$.08
T328	Tone Arm Base	2.25	TA379 Friction Lock Spring
T358	Balance Arm	3.08	TA500B Complete Tone Arm, G. P

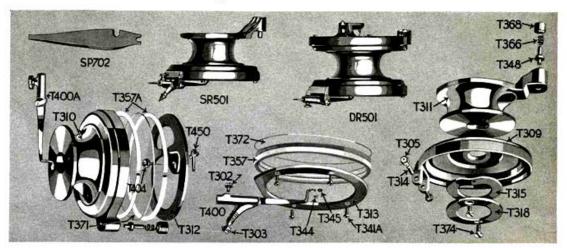


#### Tone Arms used on 8-7, Seville, 10-7, Madrid, Navarre, 14-7, Valencia, Cortez, Cordova and Hampton

No. 84	Screw for atta	ching Tone-arm Base to		TO328	Tone-arm Base \$1.67
	Cabinet		.08	TO331A	Tone-arm Tube
TO103	Trip Arm Ser	y	.08	TO365A	Swing Elbow and Ring 2.50
TO307A	Swing Arm	lar Ring	.13	TO373	Upper Ball Race
TO316	Trip Arm		.28	TO376	Spring for Swing Arm
TO322	Tone-arm Bea	ring Lock Screw	.08	TO387A	Swing-arm Ring Plug
TO323	Swing-arm Scr	rew	.08	TO400	Main Elbow and Inner Ball Race 1.40
TO326	Ball Retainer .		.08	TO500	Tone Arm Complete

6

## Reproducer Units



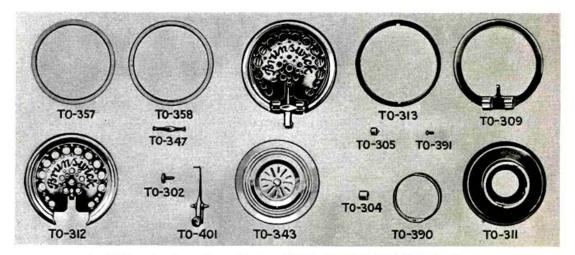
#### Repair Parts for Single Ultona Reproducer

T302		.08	T344	Diaphragm Screw \$ .08
T303	Lock Nut	.08	T345	Diaphragm Washer
T305	Lock Nut for Pivot Screws	.08	T348	Lock Pin
T309	Sound Box	1.17	T357	New Double Rubber Gasket 17
T311	Swivel Casting	1.67	T366	Lock Pin Spring
T313	Sound Box Ring	.50	T368	Screw for Lock Pin
T314	Stylus Bar Pivot Screws	.08	T372	Mica Diaphragm 1.34
T315	Tension Spring Washer	.08	T374	Tension Spring Ring Screws08
T318	Tension Spring Washer Ring.	.07	T400	Stylus Bar with Screw and
T341	Sound Box Ring Screws (oval			Lock Nut
	head)	.08	T345	Diaphragm Washer
T341A	Sound Box Ring Screws (fillister		SR501	Single Ultona Reproducer 6.75
	head)	.08	DR 501	Double Ultona Reproducer 15.75

#### Repair Parts for Double Ultona Reproducer

#### Same parts used as for Single Ultona Reproducer but omit T309, T311 and add the following:

T310	Diamond Point Sound Box \$1.67
T312	Diamond Point Ring
T357/	Rubber Gasket
	Mica Diaphragm for Diamond
	Point Side 1.34
T400A	Stylus Bar with Screw
T404	Cord and Lock Nut and Fibre Washer for Diamond Point
	Stylus
T401	Diamond Float 6.09
T450	Diamond Point Stylus with Diamond Slug
T-401	Consists of T312, T450, T404, T371.



## Repair Parts for Reproducers Used on 8-7, Seville, 10-7, 14-7, Madrid, Navarre, Valencia, Cortez, Cordova, and Hampton Models.

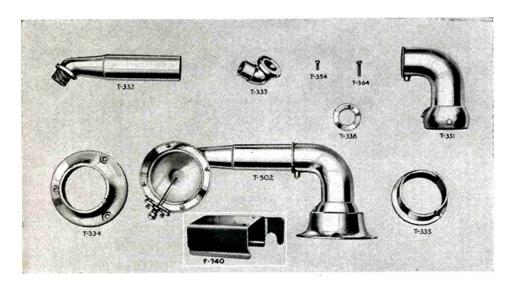
TO302	Needle Thumb Screw (0)			Reproducer Diaphragm\$.	.67	
	dized)\$		TO347	Stylus Bar Bearing Spring	.08	
TO304	Stylus Bar Bearing Bushing	.10			.08	4
TO305	Take-up Plug for Stylus Bar		TO358		.08	
	Bearing Bushing	.15	TO390		34	
TO309	Reducer Ring (Oxidized)	.67			.08	
TO311	Reproducer Back	.84			75	
TO312	Reproducer Cover	.67	TO501		84	
	Reproducer Clamp Ring	.42				

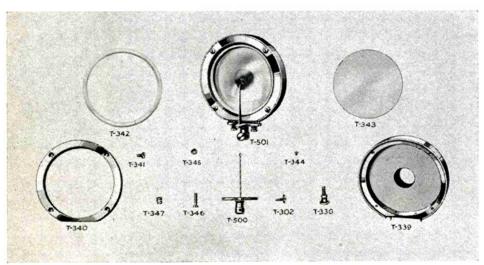
## Repair Parts for Tone Arm for Portable Phonograph Model 101

No.	Description	Price
T331	Main Elbow Casting	\$1.00
T332	Tone Arm Tube	1.00
T333	Front Elbow	.84
T334	Tone Arm Base	.67
T335	Base Sleeve	. 50
T338	Tension Washer	.08
T354	Stop Screw	.08
T364	Set Screw	.08
T502	Tone Arm Only Assembled	4.17
F740	Tone Arm Clip	.25

## Repair Parts for Reproducer for Portable Phonograph Model 101

No.	Description	List Price
T302	Needle Thumb Screw	\$ .08
T330	Sound Box Screw	.08
T339	Sound Box Casting	.84
T340	Sound Box Ring	.42
T341	Screw for Sound Box Ring	.08
T342	Rubber Tubing Gasket	.08
T343	Mica Diaphragm 2 1-6 in. dia	.84
T344	Diaphragm Screw	.08
T345	Diaphragm Washer	.08
T346	Stylus Bar Mounting Screw	.08
T347	Stylus Bar Spring	.08
T500	Stylus Bar Assembled Complete	.84
T501	Reproducer Assembled Complete	3.34



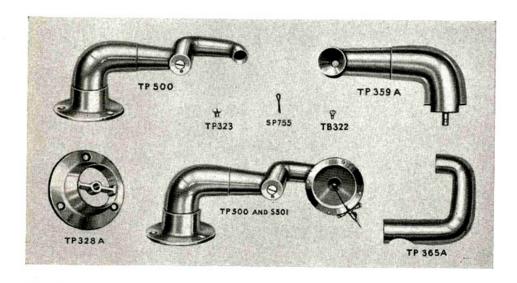


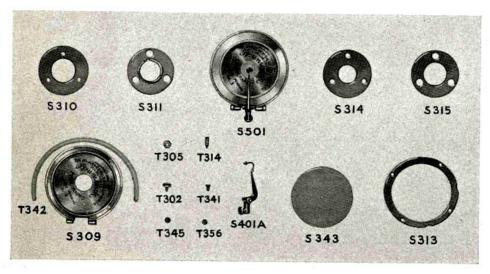
## No.102 and Rex Portables No.102 and Rex Portables Tone Arm Unit

No.	Description	List Price
TP500	Tone Arm complete	\$ 4.59
TP359A	Main Elbow	2.09
TP365A	Swing Arm	1.67
TP328A	Base	1.25
SP755	Cotter Pin for Lid Support	
TB322	Screw for Base	.08
TP323	Swing Arm Screw	.08

## Reproducer Unit

No.	Description	List Price
S501	Reproducer complete	\$ 4.17
S309	Reproducer Back	.84
S313	Reproducer Ring	.59
S310	Reproducer Plate	
S311	Reproducer Collar	
S314	Rubber Gasket (with Lugs)	.08
S315	Rubber Gasket (without Lugs)	
S343	Mica Diaphragm	
S401A	Stylus Bar	.34
T302	Needle Thumb Screw	
T342	Rubber Gasket for Mica	
T341	Reproducer Ring Screw	
T305	Pivot Screw Lock Nut	
T314	Pivot Screw	
T345	Diaphragm Washer	
T356	Diaphragm Washer Nut	.08



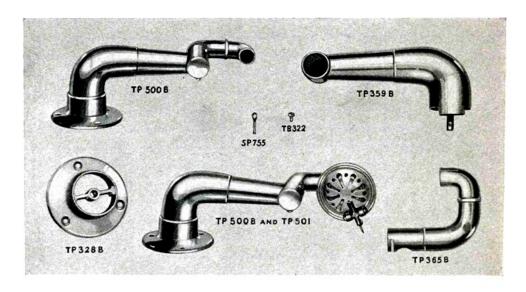


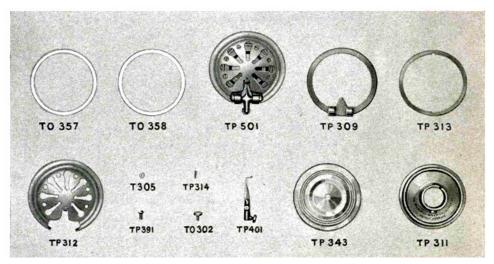
## No. 104 Tone Arm Unit

## No. 104 Reproducer Unit

No.	Description	Price
TP500B	Tone Arm complete	4.59
TP359B	Main Elbow	2.09
TP365B	Swing Arm	1.67
	Base	1.25
SP755	Cotter Pin for Main Elbow	.08
TB322	Screw for Main Elbow	.08

No.	Description	List Price
TP501	Reproducer complete	\$ 4.17
TP311	Reproducer Back	.84
TP312	Reproducer Cover	.42
TP343	Diaphragm	.67
TP313	Clamp Ring	.42
TP309	Reproducer Ring	.59
TO357	Gasket for Reproducer	.08
TO358	Rice Paper Gasket for Reproducer	.08
TP391	Screw for Reproducer Back	.08
TP314	Pivot Screw	.08
T305	Pivot Screw Lock Nut	.08
TP401	Stylus Bar	.34
TO302	Needle Set Screw	.08





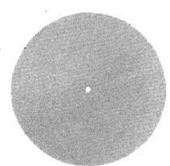
## Turntables and Covers



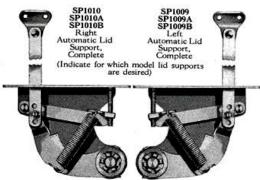
F430—10-inch Turntable, N. P. only, \$1.42 Furnished with covers, if desired, for the additional cost of the cover.



B430-12-inch Turntable (With short Hub) \$1.84

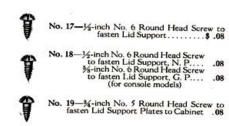


No.	5-1	0-inc	h G	ree	n F	elt		
C	over						- 5	34
No.	5—1 over	2-inc	h G	ree	n F	elt	_	.50
No. or	5—1 Tan	2-inc Plus	h C	Gree	n,	Gr	ey	1.34



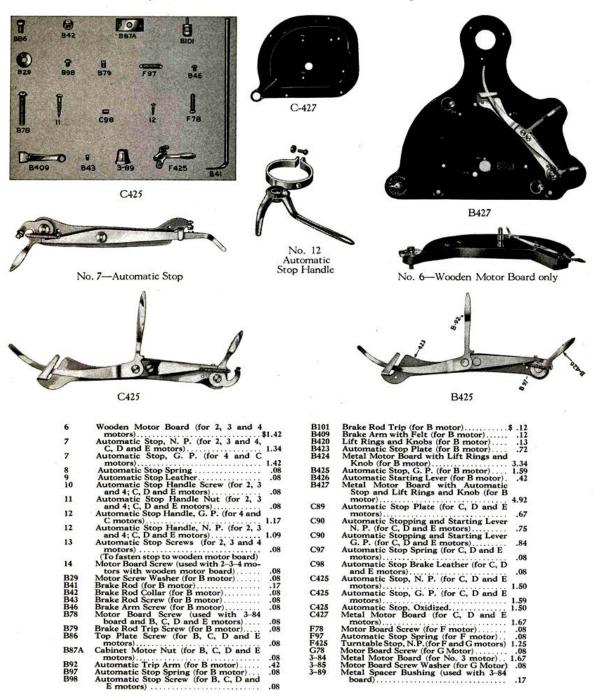
## Lid Support Unit

	Dia support onti	
No. 15-	Lid Support, N. P.	\$ .92
SP1010	N. P. Right-hand Automatic Lid Support.	
SP1009	N. P. Left-hand Automatic Lid Support	
SP744B	Light Spring for Automatic Lid Support For Models 200, 207, 210 and 212	
SP1009A	Oxid. or G. P. Left-hand Automatic Lid Support	2.34
SP1010A	Oxid. or G. P. Right-hand Automatic Lid Support	
SP744A	Heavy Spring for Automatic Lid Support. For Colonial, Cambridge, Tudor, Strat- ford, Chippendale, Cortez, Cordova, P14, P13, PR148, PR26, PR36, PR46.	.10
SP1009B	G. P., Oxid. or N. P. Left-hand Automatic Lid Support	
SP1010B	G. P., Oxid. or N. P. Right-hand Automatic Lid Support	
SP744B	Light Spring for Automatic Lid Support. For Royal, Raleigh, York, Queen Anne, Eton, Seville, Madrid, Valencia, Navarre, P9, P10, P11, P3-160, PR138	.08
SP755	Cotter Pin for Lid Supports	.08
SP752	Screw for adjusting Lid Supports	25





### Top Plate and Automatic Stop Units



#### HINGES

DOOR HINGES



SP1022-2—Upper or Lower Hinge, both Right and Left side for Cortez, P11, P14, 34c



HG504—Left-hand Top Door Hinge for PR148C, 50c

HG500— Bottom Left-hand Door Hinge, PR138C, 42c

HG501— Bottom Right-hand Door Hinge, PR138C, 42e



R1015-1—Upper Left for Seville, 10-7, 14-7. Lower Left for Madrid, Valencia, Navarre. Also Left-hand record compartment door of Madrid, Valencia, 34c



HG505—Left-hand Bottom Door Hinge for PR148C, 50c HG506—Right-hand Door Hinge, Top or Bottom for PR148C 42c



HG502— Top Left-hand Door Hinge, PR138C, 42e HG503— Top Right-hand Door Hinge. PR138C, 42e



HG138-1— Desk Fall Door Hinge, PR138C, 25e

R1015-2—Upper Right for Seville, 10-7, 14-7. Lower Right for Madrid, Valencia, Navarre. Also Right-hand record compartment door for Madrid, Valencia, 34c



R1014-1—Lower Right or Left Hinge for Seville, 10-7, P13. Upper Right or Left Hinge for Madrid, Valencia, Navarre, P13. Also record compart-ment door for Madrid, Valencia. Pilot Light Door Hinge for PR148C 25c



HG507—Right-hand Album Door Hinge, PR138C, PR148C, 34e HG508—Left-hand Album Door Hinge, PR138C, PR148C, 34e



SP1006—Invisible Hinge for Upper Part of Doors, &c For Royal, York, Queen Anne, Raleigh, Colonial, Cambridge, Tudor, Stratford, Eton, BR35, BR50, BR60, BR100 and BR160



SP734—Invisible Hinge for Upper Part of Door, on R. H. Side of Cabinet, 8c



SP729—Hinge Plate for Lower Part of Doors, 8c

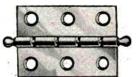


SP1007—Invisible Hinge for Lower Part of Doors, 17c



SP735—Invisible Hinge for Upper Part of Door on L. H. Side of Cabinet, 8c

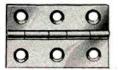




No. R815—2-inch Door Hinge For Models 210-212, 105, N. P., 25c For Model 217, Chippendale, G. P., 34c Oxidized for 8-7, Hampton and all Art Models, G. P. 34c



No. 67—2-inch N. P. Cover Hinge for Model 105, 17c

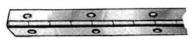


No. 68-N. P. Cover Hinge, 25c For 200-207 Models



No. 69—Door Hinge Screw, ¾-inch No. 5 flat head for No. 70 Hinge, N. P, 8c

#### LID HINGES



No. 71 1734-inch Cover Hinge for Tudor and Stratford, G. P. ...... \$1.17

#### SP805

16-inch Cover Hinge for Models 207, 210, 212, Raleigh, N P
For Models 117, 120, 122, 127, 135, 217, BR60, BR100, BR160, Colonial, Strat- ford, Cordova, P3, Tudor, PR6, PR5, G.P
For Models BR7, Madrid, Valencia, Oxidized
14-inch Hinge for P9, P11, P12, 26C, 28C, 38C, 128C, 36C, 38C, 48C, Hampton, BR260, BR360, BR460
14-inch Hinge for PR138C (both sides). Oxidized1.17
14-inch Hinge for Navarre, Eton, No. 102, Royal, York, Rex, N. P

#### SP805

## Parts for No. 101 and No. 102 Portable Models



F410A —Needle Cup and Holder complete, N. P. for Model 102, 72c



-739—Needle Cup, Nickel Plated.....25c



No. F-410 F-410—Needle Cup Holder, Nickel Plated 72c











F746-Stay Arm, 17c



No. 56-Key, 8c



No. 55-Lock, 72c





No. 50—Clip to Hold Record Container, N. P., 8c



No. 52—Corner Braces, N. P., 8c



No. 57—Pocket Tab for upper center section of Record Container Black or Brown, 8e



No. 58—Snap Tab for upper left and right corners of Record Container, 8c

## Parts for No. 104 Portable Model



104-1 Handle with Rings..... 34c

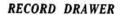








## Miscellaneous Cabinet Trimmings and Hardware





Specify Model For Which Desired



No. 31—Caster, Ball Bearing Nickel or Gold, 17c





No. 28—Ball Bearing Caster for No. 135, 34c



No. 88—Ant. Brass or Copper Plate with Ring and Screw
For Album
Compartment,
Diameter 11/16"



No. 36-Lock and Plate, 72c No. 39-G. P. Plate, 17c



No. 40-Lock and Plate 92c



No. 311—Lock and Plate For PR138 and 148 New Style Oxid., 84c



No. 309—Lock and Plate For P11 Antique Brass, 84c



No. 312—Lock and Plate For P9, PR16, PR26, PR36, PR46, PR28, 38, 48, BR260, 360, 460 PR128, 138, 148 Old Type Antique Brass, 84c



SP738-N. P. or G. P. Open Needle Cup...34e SP740A-Cover for Needle Cup..... SP739A-Brass Bottom of 2-piece Cup . . . . 17e



No. 32— ¾-inch Small Felt Lid Discs, 8c



No. 33-1/2-inch Large Felt Lid Discs, 8c



SP726—Drawer Plate for Nos, 117, 120, 122, 127, 212 and 217 Models, 8c



No. 89—Ant. Brass Plate with Ring and Screw for PR148, New Style Diameter 1 13/16" 50c







No. 30 or SP845 Drawer Front Brace for Nos. 117, 120, 122, 127, 212, and 217 Models, 8c





No. 37— 14-inch No. 4 Flat Head Screw for Plate, 8c



No. 48— Leg Ferrule, 17c

SP736—Drawer Stop Pin for Nos. 117, 120, 122, 127, 212 and 217 Models, 8c



No. 41— Nickel Plated, 17c



No. 38—G.P. Key, 42c

No. 42— Gold Plated, 17c

DOOR KNOBS



No. 86-Key, Oxid., 34c

No. 43— Mahogany and Oak, 17e



No. 90—Place Ring, Screw, Washer, 70c 90-Plate with

SP765— Diameter %-in. Nickel Plated Metal Glide, 17c For York, Raleigh, Eton and No. 200

SP765-1— Diameter ½-inch For Tudor, Stratford and Queen Anne 17e

No. 91— Door Knob, Wooden For Navarre, P9, P11, P12, BR18, PR16, PR128, PR148 (Old Type) BR260, BR360, 10c



No. 93— Wood Door Knob with Rubber Tip For New Type PR138, PR148 17e



No. 47— Bullet Catch for Doors



No. 45— Mahogany and Oak, 25c



For Seville, Madrid, Valencia, P13, Oxid., 8-7, 10-7, 14-7



No. 92— Wood Door Knob, 10e For P2, PR5, PR16, PR26



SP700-1-(Oxid.) For Cortez, P14, 17e



No. 94— Wood Door Knob, 10c For Cordova, Navarre, BR50, PR5

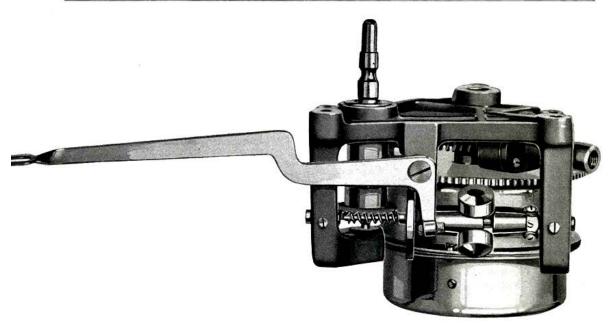




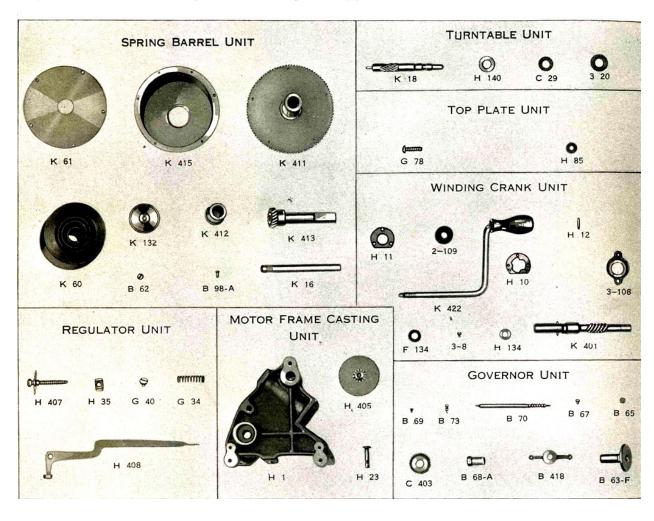
## Repair Parts for Type "K" Motor

For Model 2KRO, Granada, No. 108, No. 109, and No. 110 Portables

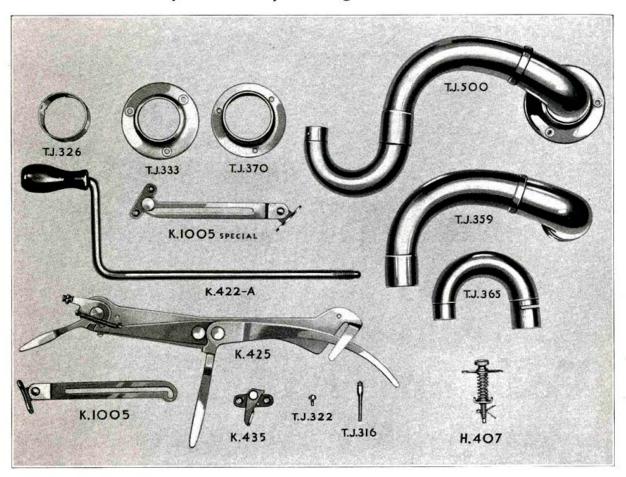
Part No.	Description	List Price	Part No.	Description	List Price
	SPRING BARREL UNIT			REGULATOR UNIT	
K415 K411 B98A K60 B62 K16 K132	Spring Barrel Assembly Driver Gear and Arbor Spring Barrel Flange Screw Spring. Oil Plug Screw Spring Barrel Shaft. Spring Barrel Washer.	.92 .08 1.09 .08 .34 .08	H408 H407 G40 H35 G34	Equalizer Lever Indicator Assembled, G. P. Regulator Arm Screw Lock Nut for Regulator Arm Indicator Spring  TURNTABLE UNIT	.08
K412 K61 K413	Lower Spring Arbor and Rivet	.42 .17 .92	K18 H140 3-20 C29	Turntable Shaft Turntable Shaft Collar. Turntable Shaft Lubricating Cap Turntable Shaft Felt Washer	.08
B65 B69 B418 B73 B67 B68A B70 B63F C403	Governor Spring Washer Governor Nut Set Screw Governor Spring and Weight Governor Bearing Set Screw Governor Spring Screw Governor Spring Nut Governor Shaft Disc and Stem Governor Worm Gear	.08 .08 .10 .08 .08 .10 .67 .34 .50	H134 K401 3-8 F134 H10 H11 H12 K422 2-109 3-108	WINDING CRANK UNIT Fibre Washer for Winding Shaft. Winding Shaft and Coupling Assembly. Winding Shaft Collar Set Screw. Winding Shaft Thrust Washer. Winding Ratchet. Winding Ratchet Cover. Winding Ratchet Pin. Winding Crank and Screw Block Plate. Escutcheon only, N. P.	.84 .08 .08 .17 .08
H1 H23 H405	Motor Frame Casting. Intermediate Gear Pin Intermediate Gear	2.42 .08 .92	G78 H85	TOP PLATE UNIT  Motor Board Screw Top Plate Washer	.08



## Repair Parts for Type "K" Motor

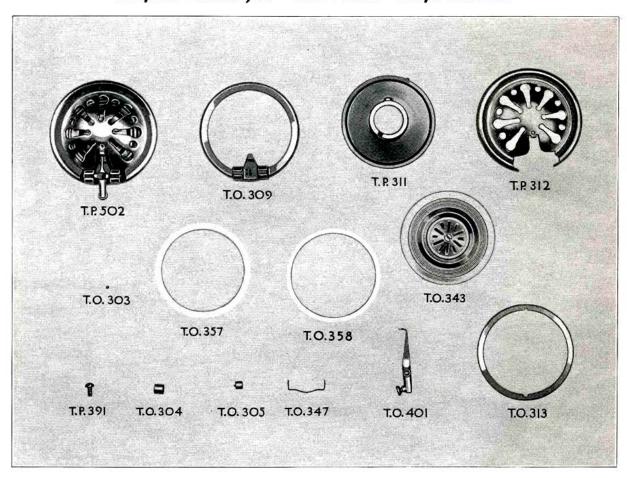


Repair Parts for "T. J." Tone Arm



Part No.		List Price	Part No.		List Price
TJ316	Stop Pin B.B.	\$ .30	T J322	Screw for Tone Arm Base and Swing Arm\$	.08
TJ326	Ball Retainer	.49	H407	Indicator Assembled	.20
TJ333	Tone Arm Base B.B.	.90	H32	Indicator Screw B.B.	.08
TJ359	Main Elbow Assembled B.B.	4.45	G34	Spring	.08
TJ365	Swing Arm Assembled B.B.	1.75	H35	Nut	.08
TJ370	Outer Ball Race	.35	SP755	Cotter Pin	.08
TJ500	Tone Arm B.B	9.00	F410B	Pin Cup Complete B.B	.95
K422A	Winding Crank		K128	Pin Cup Screws	.08
3-108	Escutcheon B.B.	.20	R876	Motor Board Screws	.08
2-109	Escutcheon Washer	.08	B98	Auto Stop and Regulator Screws	.08
K425	Automatic Stop B.B.		TO329	Ball Bearing-Tone Arm Base	.08
K435	Record Pocket Lock	.60	T322	Screw for Mounting Tone Arm	.10
K1005	Stay Arm B.B.	.45	203	Brown Leather Handle	.50
K1005	(Spec) Stay Arm B.B	.45	F439	Turntable with Velour Cover B.B. & G.P.	2.70

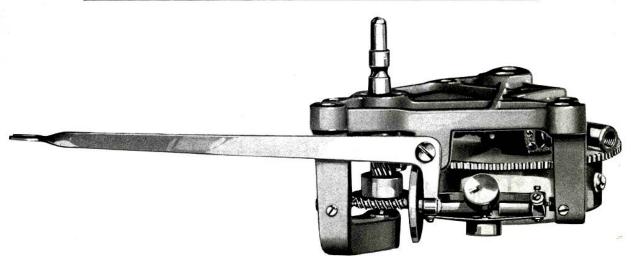
## Repair Parts for "T. P. 502" Reproducer



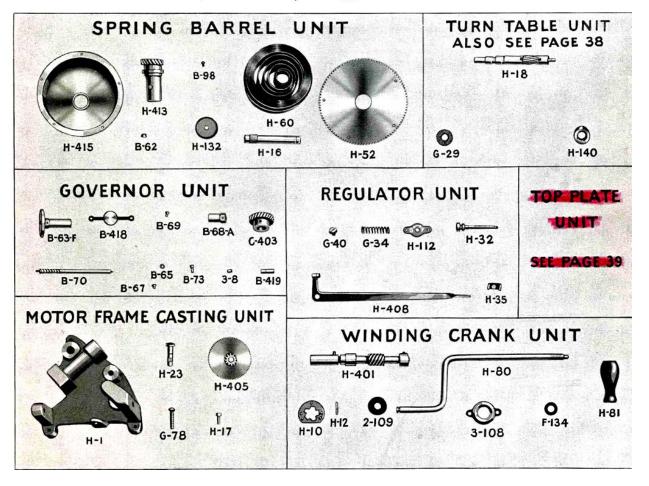
Part No	o. Description List Price	Part N	o. Description Lis
TO302	Thumb Screw\$.08	TO313	Reproducer Clamp Ring B. B
TO303	Stylus Bar Ball Bearing	TO343	Reproducer Diaphragm
TO304	Stylus Bar Bearing Bushing	TO347	Stylus Bar Bearing Spring
TO305	Take Up Plug for Stylus Bar Bearing	TO357	Reproducer Gasket (Thick)
	Bushing	TO358	Reproducer Gasket (Thin)
TO309	Reproducer Ring B. B 1.30	TP391	Screw for Reproducer Back
TP311	Reproducer Back B. B	TO401	Stylus Bar
TP312	Reproducer Cover B. B 1.00	TP502	Reproducer B. B

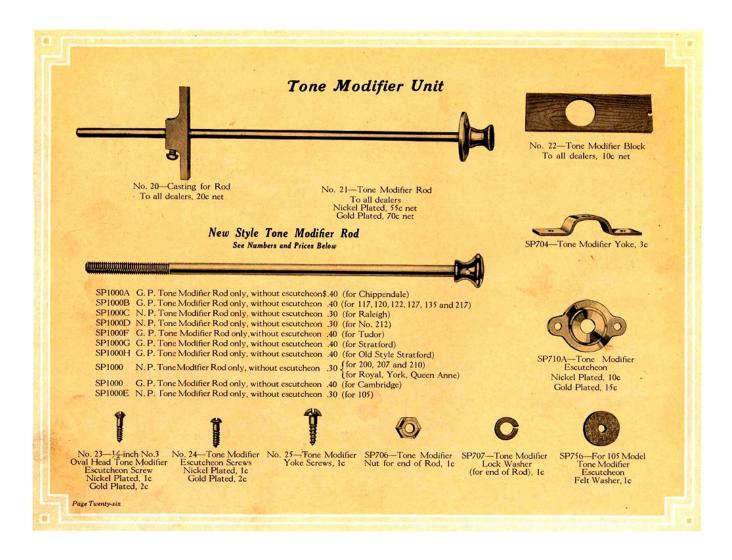
# Repair Parts for Type "H" Motor For Model No. 106 Portable

Part No.	Description	List Price	Part No.	Description	List Price
H60 H415 H52 H16 H413 H132 B98 B62	SPRING BARREL UNIT  Main Spring Spring Barrel Drive Gear Spring Barrel Shaft Winding Gear and Hub with Rivet Spring Barrel Spare Washer Spring Barrel Screw Oil Plug Screw	.50 .42 .34 .59 .08	H405 H23 G78 H408 H112 H32 G34 H35 G40	Intermediate Gear Intermediate Gear Pin Motor Frame Screw  REGULATOR UNIT  Equalizer Lever Indicator Dial, G. P. Indicator Knob and Screw Indicator Spring Lock Nut for Regular Arm Regular Arm Screw	.08 .08 .34 .17 .08 .08
B419 B70 B63F B68A B418 B69 B67	GOVERNOR UNIT Governor Bearing and Ball. Governor Shaft. Disc and Stem Governor Spring Nut. Governor Spring and Weight. Governor Nut Set Screw. Governor Spring Screw.	.67 .34 .10 .10 .08 .08	H18 G29 G140	TURNTABLE UNIT Turntable Shaft Turntable Shaft Felt Washer. Spacer Sleeve for Turntable Shaft Also See Page 38 WINDING CRANK UNIT	.08
B65 B73 3-8 C403 B417A	Governor Spring Washer Governor Bearing Set Screw Governor Gear Set Screw Governor Worm Gear Complete Governor. MOTOR FRAME CASTING UNIT	.08 .08 .08	H80 H81 H401 H10 H12 3-108	Winding Crank and Screw Block Plate. Winding Crank Handle. Winding Shaft (less Collar) Winding Rachet. Winding Rachet Pin. Escutcheon, Block Plate	.42 .84 .17 .08
H1	Motor Frame	2.42	2-109 F134	Escutcheon Washer	

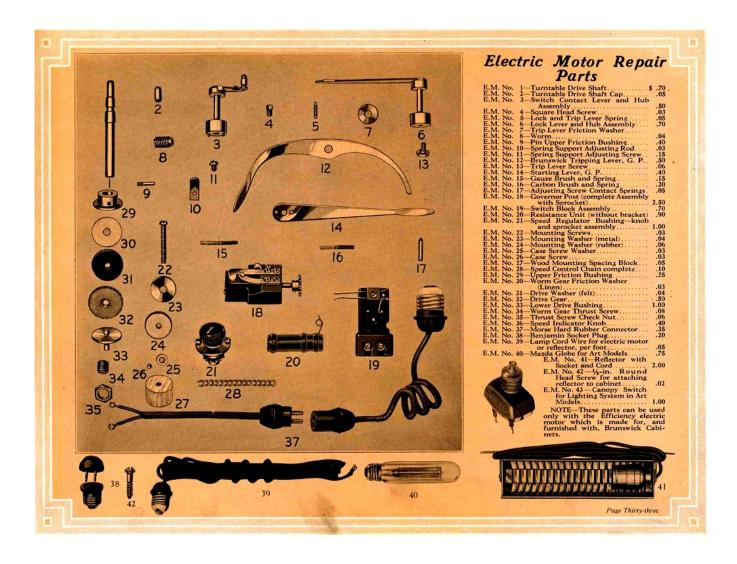


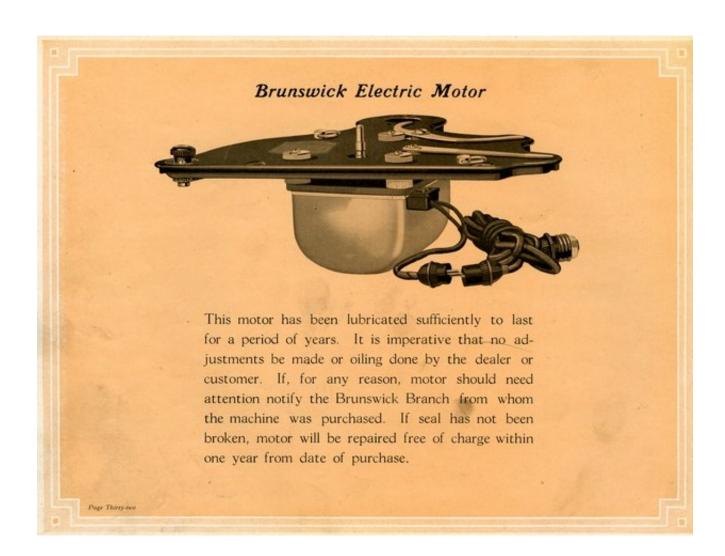
## Repair Parts for Type "H" Motor











# Brunswick Patents

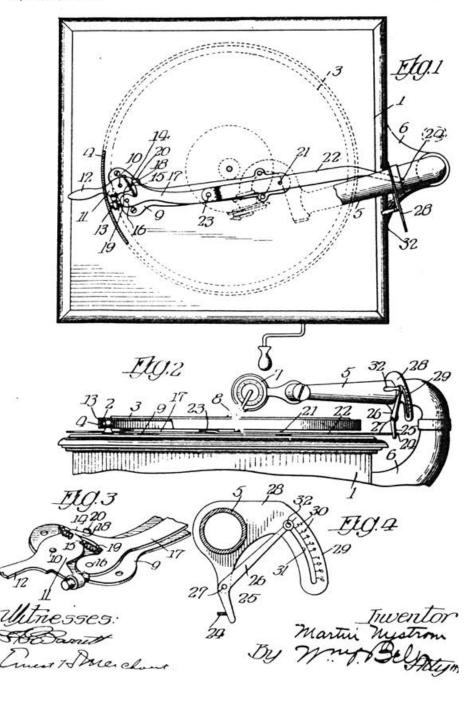
M. NYSTRUM.

BRAKE MECHANISM FOR TALKING MACHINES.

APPLICATION FILED MAY 20, 1916.

1,207,986.

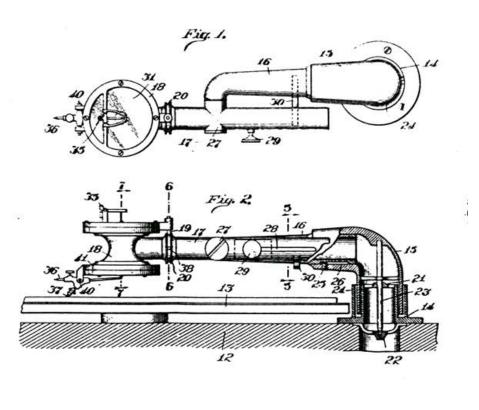
Patented Dec. 12, 1916.

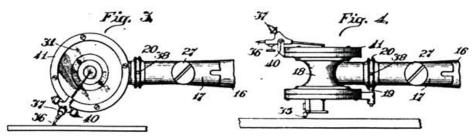


# L. TAXON. UNIVERSAL SOUND REPRODUCER AND ARM. APPLICATION FILED FEB. 7, 1917.

1,240,267.

Patented Sept. 18, 1917.

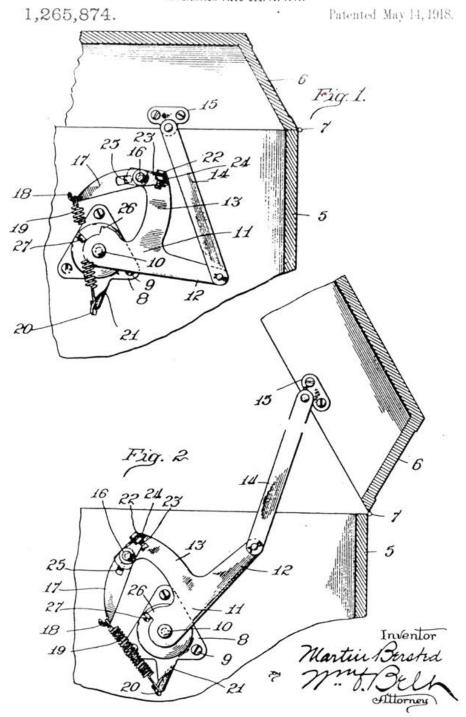


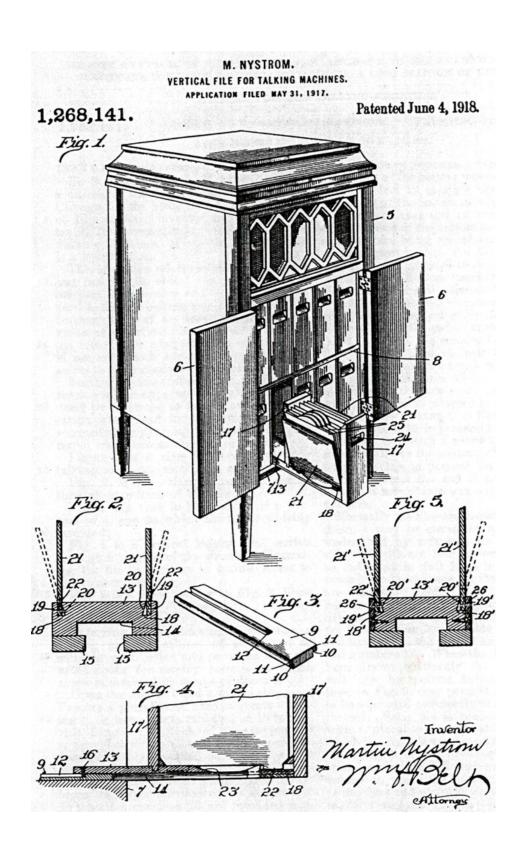


Louis Payon

Min Della

M. BERSTED.
COVER SUPPORT FOR PHONOGRAPHS.
APPLICATION FILED DEC. 10, 1917.

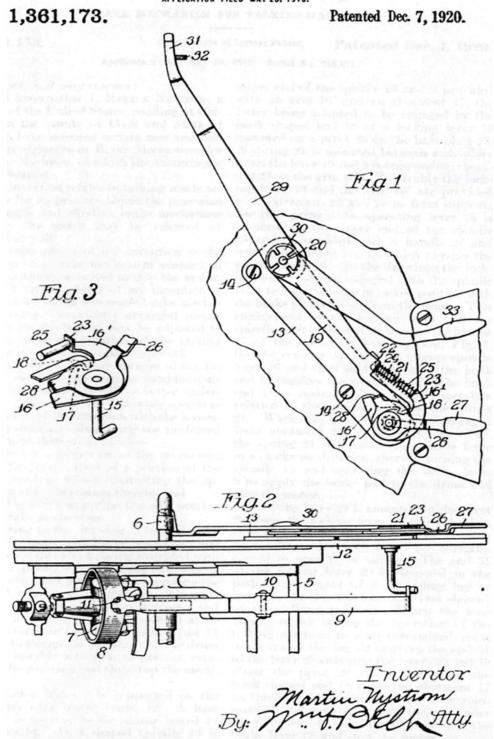




M. NYSTROM.

BRAKE MECHANISM FOR TALKING MACHINES.

APPLICATION FILED MAY 20, 1918.



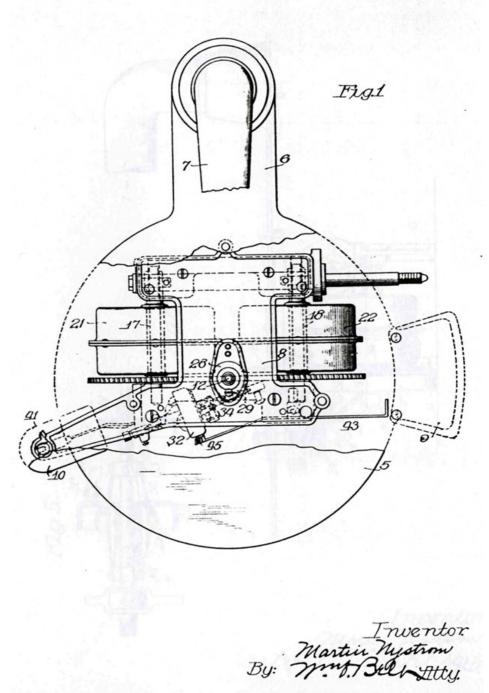
M. NYSTROM.

MOTOR.

APPLICATION FILED MAY 20, 1918.

1,361,174.

Patented Dec. 7, 1920.



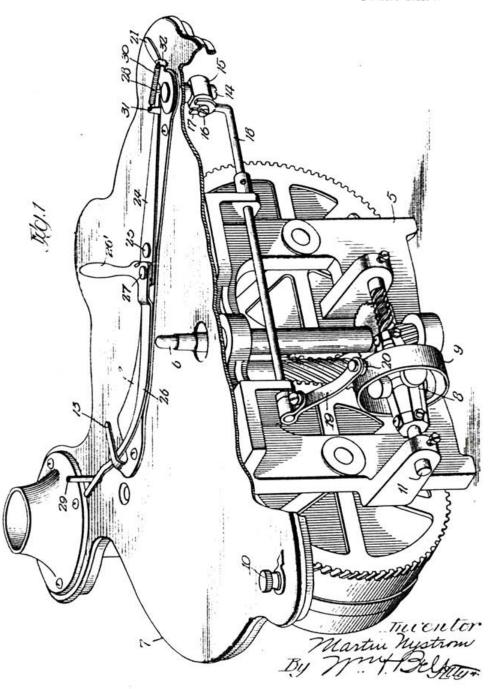
M. NYSTROM.

BRAKE MECHANISM FOR TALKING MACHINES.

APPLICATION FILED AUG. 16, 1919.

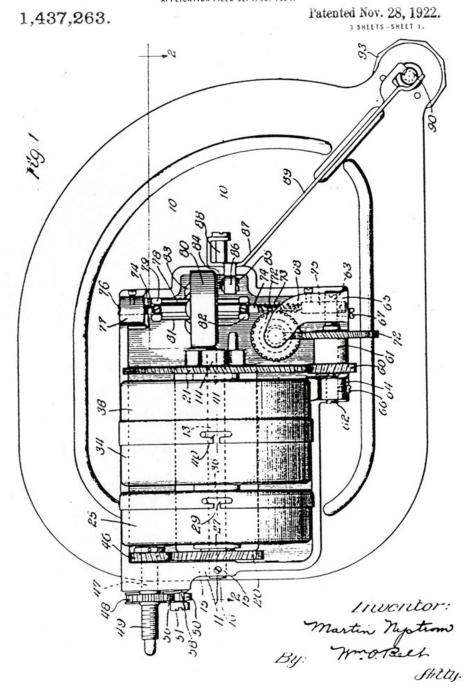
1,406,579.

Patented Feb. 14, 1922.

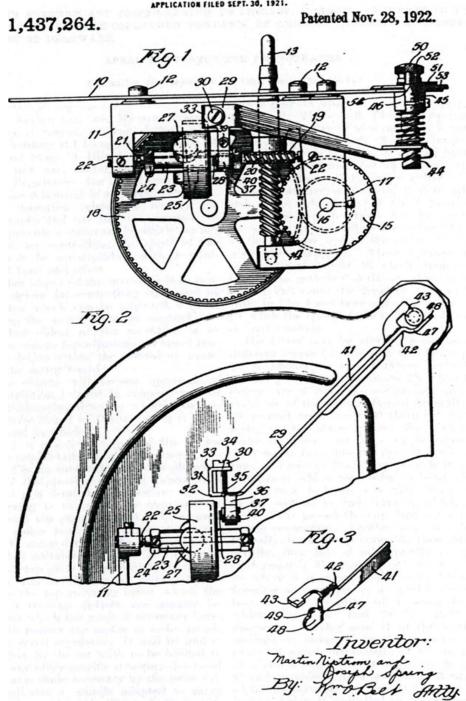


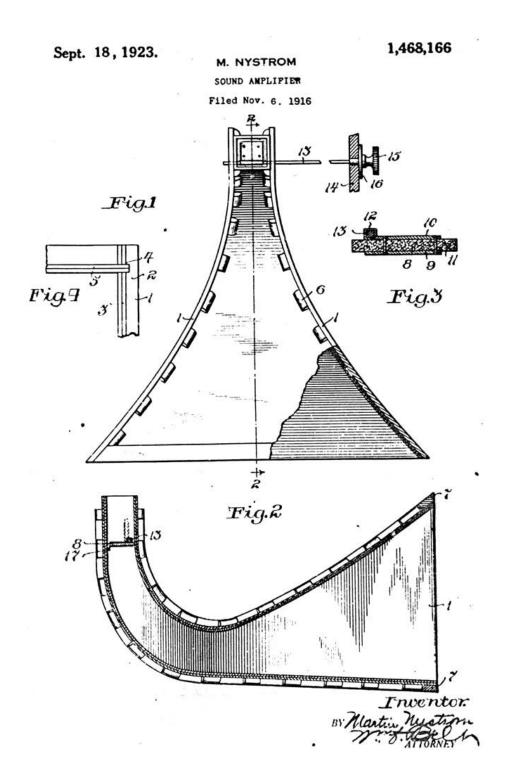
M. NYSTROM.
MOTOR.

#### APPLICATION FILED SEPT. 30. 1921.



# M. NYSTROM AND J. SPRING. SPEED REGULATOR FOR PHONOGRAPHS. APPLICATION FILED SEPT. 30, 1921.





Aug. 31, 1926.

F. X. HOFBAUER

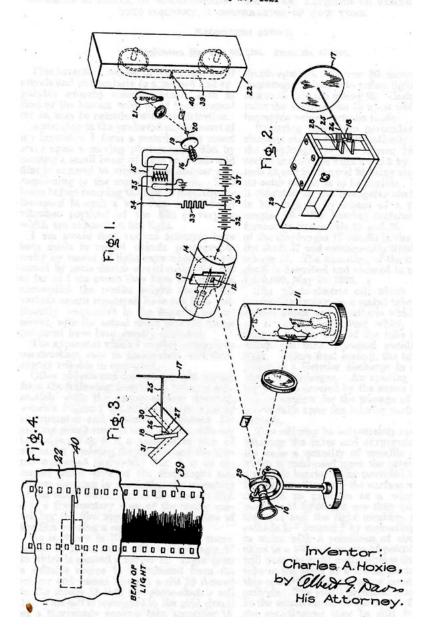
SOUND RECORD RECORDING DEVICE

Filed May 2.. 1922

Aug. 31, 1926.

1,598,377

C. A. HOXIE
RECORDING SOUND
Filed May 20, 1921

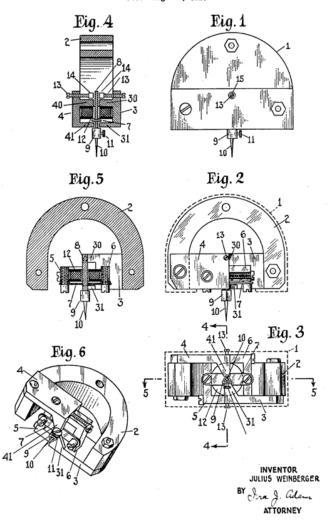


July 15, 1930.

## J. WEINBERGER ELECTROMAGNETIC REPRODUCER

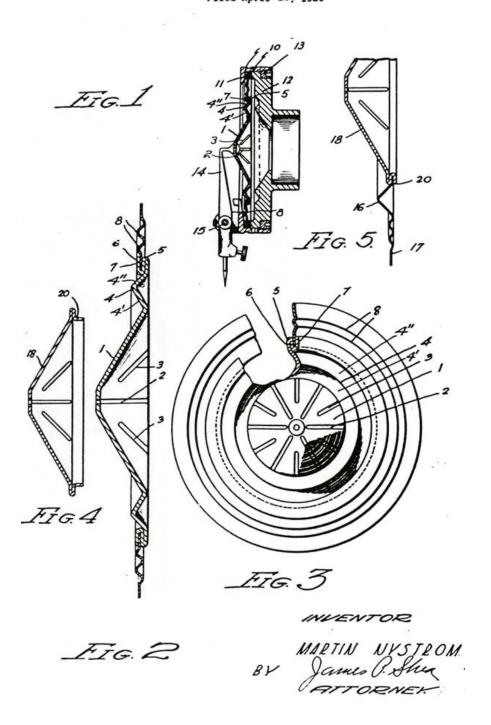
1,770,501

Filed Aug. 29, 1925



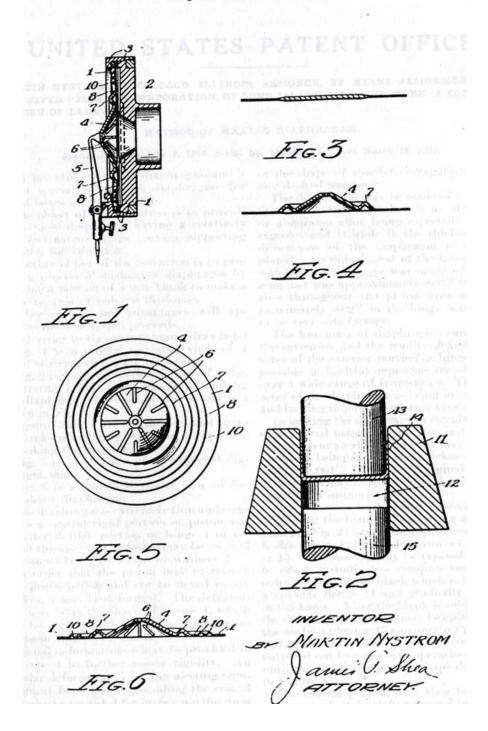
#### M. NYSTROM

SOUND REPRODUCING DEVICE Filed April 12, 1926



#### M. NYSTROM

METHOD OF MAKING DIAPHRAGMS Original Filed July 2, 1926

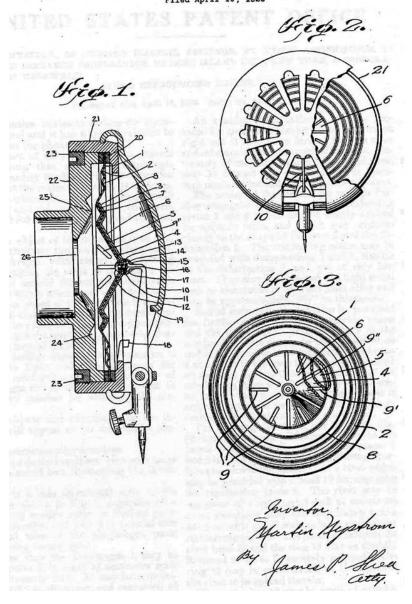


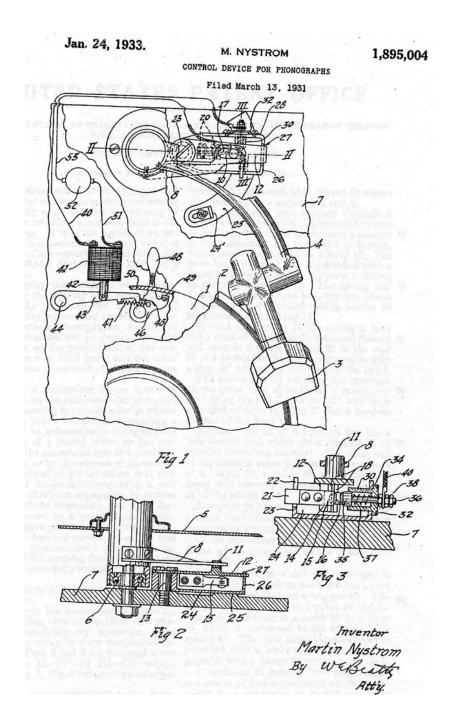
Sept. 8, 1931.

M. NYSTROM

1,822,450

SOUND REPRODUCING DEVICE Filed April 10, 1926



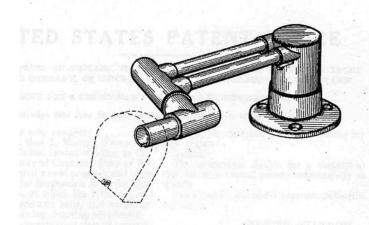


May 6, 1930.

M. NYSTROM

Des. 81,106

SUSPENSION ARM FOR AN ELECTRICAL PICKUP Filed June 21, 1929



Witness

Inventor:
Martin Mystrom
Dy James P. She

## <u>Partial (Incomplete) Listing of Brunswick Phonograph,</u> <u>Radiola, Panatrope, and Radio Models</u>

Most large phonograph models could be purchased with electric motors to power the turntable—for an extra \$25.00 to \$35.00

Most models could be purchased with time payments, "...on convenient terms."

Pre-Ultona Models (1916-1918)		Style Cha	anges	
			As of Februar	ry 1, 1919
Style	Initial Price		<u>From</u>	<u>To</u>
55	\$55.00		75	7
75	\$75.00		100	10
100	\$100.00		125	12
125	\$125.00		150	15
175	\$175.00		175	17
200	\$200.00		200	20
225	\$225.00		225	22
			275	27
			350	35

#### **Upright Ultona Models** Available in Various Finishes

```
Style Price
 10
 10M
 12
 15
 17
 20
 22
 27
       Japanese black lacquer
 35
 55
 75
       $100.00 (1/1/1919)
 77
 100
       $125.00 (1/1/1919)
107
       $125.00
107M
110
       $150.00
112
       $200.00
112M
117
       $250.00 ($225.00 March 1923)
120
       $285.00
122
       $310.00 ($300.00 March 1922; $275.00 March 1923)
       $150.00 (1/1/1919)
125
```

## **<u>Upright Ultona Models</u>** (continued)

Style	Price
127	\$325.00 (9/19/1922); \$275.00 (March 1923); Ornamented Black Lacquer
135	\$400.00 (9/19/1922); \$325.00 (March 1923)
135	\$350.00 (March 1923) Walnut Case
150	\$175.00 (1/1/1919)
160	\$172.00 (Pre-Ultona style 5/1/1918)
175	\$200.00 (1/1/1919)
185	\$198.00 (Pre-Ultona style 5/1/1918)
200	\$100.00 (9/19/1922)
201	
205	(Canadian model?)
207	\$125.00 (9/19/1922); \$185.00 in Canada (December 1921)
210	\$150.00 (9/19/1922); \$220.00 in Canada (December 1921)
212	\$200.00 (9/19/1922)
217	\$250.00 (March 1923) Earlier Style 20
220	
225	\$241.00 (5/1/1918)
255	\$273.00 (5/1/1918)
275	Japanese black or green lacquered; discontinued 1/1/1919
290	\$311.00 (5/1/1918)
350	Discontinued by 1/1/1919; changed to Style 35
1500	\$1,500 (1/1/1919); Italian Renaissance Art Model
VO	Identical to Style 117
1177	Dealer's model only; used for demonstrations; finished in white or ivory enamel

# <u>Upright Ultona Models</u> (Canadian)

# Table Models

Style	Price (May 1918)	Style	Price
100	\$107.00	40	\$40.00 (1/1/1919)
125	\$134.00	53	\$57.00 (5/1/1918) Canadian
160	\$172.00	60	\$60.00 (1/1/1919)
185	\$198.00	78	\$84.00 (5/1/1918) Canadian
225	\$241.00	85	\$40.00
255	\$273.00	95	\$45.00
290	\$311.00	103	\$55.00
		105	\$65.00

## **Console and De Luxe Ultona Models**

Style	Price	<u>1924 Price</u>		
Arden				
Beaux Arts (e		\$750.00		
Cambridge	\$350.00 (9/19/1922; same March 1923)	\$300.00		
Chippendale	,	\$375.00		
Colonial	\$250.00 (9/19/1922)	\$250.00		
Empire				
Eton				
Georgian (ele	ctric motor)	\$475.00		
Gerona				
Gotham (elec	tric motor)	\$375.00		
Hampton				
Hudson				
Lombardi (ele	ectric motor)	\$650.00		
Navarre				
Oxford (electronic)	ric motor)	\$550.00		
Queen Anne	\$225.00 (9/19/1922)			
Raleigh	\$200.00 (October 1923)	\$180.00		
Renaissance				
Royal	\$115.00 (March 1923)	\$115.00		
	pecial model—page 18, June, 1924 TMW)			
Stratford	\$300.00 (9/19/1922) Mahogany, walnut	\$300.00		
Stratford	\$375.00 (9/19/1922) Black lacquer	\$325.00		
Tudor		\$225.00		
Westminster				
York		\$150.00		
30				
A				
C				
CH (= Chip	pendale?)			
R				
RA				
RO				
S				
T (= Tudor?)				
VO	VO			
YO (= York?)				

# Brunswick Direct Current Radiola Models -- Upright

Style	Price
210	
212	
217	

## **Brunswick Direct Current Radiola Models** – Console

		February/March
Style	1924 Price	1925 Price
30	\$190.00 with Radiola III & balanced amplifier	\$170.00
30A	\$225.00 with balanced amplifier	\$200.00
35	\$285.00 with Radiola III & balanced amplifier	\$245.00
50		
60	\$500.00	\$400.00
100	\$400.00 with Regenoflex	\$300.00
160	\$550.00 (Superheterodyne)	\$450/00
160	\$585.00 (Superheterodyne) with electric motor	\$485.00
260	\$600.00 (Superheterodyne)	\$500.00
260	\$635.00 (Superheterodyne) with electric motor	\$535.00
360	\$650.00 (Superheterodyne)	\$550.00
360	\$685.00 (Superheterodyne) with electric motor	\$585.00
460	\$750.00 with electric motor	\$650.00
Beaux Arts	(Superheterodyne)	
Empire	(Superheterodyne)	
Geneva		
Oxford		
Raleigh	with Regenoflex	
Royal	with Radiola III	
Tudor	(Superheterodyne)	
Westminster	with Radiola III	
?	\$275.00 model introduced in September 1925—with new	W
	High voltage RCA UX120 adapter tube	

## **Brunswick Alternating Current Panatrope Models**

Model Price
P-1 July 1926, Page 70 TMW (This model specially designed to operate
on 25 cycle alternating current)
P-2
P-3 Beaux Arts \$600.00 (Chicago Tribune October 26, 1926, page 9)
P-3 Chippendale
P-3 Georgian
P-3 Gotham
P-3 Lombardi
P-3 Oxford
P-3 Stratford
AZ
AZ944-C
AZ958
AZ2944
P-9 \$475.00 (Chicago Tribune, October 26, 1926, page 9)

#### **Brunswick Alternating Current Panatrope Models** (Continued)

```
Model
            Price
P-10 $650.00 (9/11/1926 (Saturday Evening Post; also Chicago Tribune October 16,
      1926, page 9)
P-11 $700.00 (9/28/1927); $550.00 (1928); $395.00 (December, 1928)
P-13 $610.00 (9/28/1927); $395.00 (December, 1928)
P-14 $460.00 (9/28/1927); $365.00 (1928); $295.00 (December, 1928)
 16-C
 21
 28-C
 38-C
48-C
2KRO $175.00 (1/21/1929)
3KRO
3KR8
3NC8
3NW8
500 (large model; glass top)
```

#### **Brunswick Panatrope With Radiola Models**

Model	Price
6	\$575.00 Chicago Tribune, October 26, 1926, page 9 No batteries needed
16	\$775.00 Chicago Tribune, October 26, 1926, page 9 House current only
28	\$900.00 Chicago Tribune, October 26, 1926, page 9 House current only
48	\$1,000.00 Chicago Tribune, October 26, 1926, page 9 House current only
128-C	October, 1926; with Radiola Superheterodyne
	October, 1926, with Radiola Superheterodyne
104	
Cordova	
2KRO	\$195.00 in 1928; \$175.00 in 1929; with Radiola 18
3KRO	\$395.00 in 1928; \$295.00 (1/21/1929); with Radiola 18
3-K-R6	,
	speaker; \$345.00 in April, 1929
3-K-R8	1 /
3-NC-8	1 /
5KR	with Radiola 18
5KR6	\$40.7.00 \tag{1}, 40.7.00 \tag{1}, 10.7.00
5KRO	\$195.00 in 1928; with Radiola 18
5NO	
5-NC-8	\$375.00 (12/11/1928)
P-3	G (04 4 7 7 00 (0 (00 (4 00 7))
	C \$1,175.00 (9/28/1927)
PR-14	
3NW8	Originally \$995.00; \$795.00 (11/1/1928)

## **Brunswick Panatrope With Radiola Models (continued)**

Model	Price	
31	\$272.00 (6	5/19/1929)
148		
PR148-C	\$1,275.00	(9/28/1927); \$995.00 by December, 1928
PR16-C		
PR17-8	\$550.00 (1	1/25/1927); with Radiola 17
AR764		
AR748		
AR940		
AR942		
AR1017-	A	
AR1038		
S-31	\$249.00 Fel	oruary, 1930
42		

## **Brunswick Exponential (Acoustic) Panatrope Models**

Model	Price
6-0	
8-7	\$90.00 (9/28/1927)
9-8	\$95.00 (2/1/1929)
10-6	
10-7	\$125.00 (9/28/1927)
11-5	
12-8	\$125.00 (10/23/1928)
14-7	\$160.00 (9/28/1927)
15-8	\$150.00 (9/15/1928)
P-9	
Arden	
Cordova	\$450.00 (11/10/1926) + 6 tube DC Radiola
Cordova	\$550.00 (11/10/1926) + 8 tube DC Radiola
Cortez	\$300.00 (9/28/1927)
Hampton	\$325.00 (11/17/1926)
Largo	
Lorraine	
Madrid	\$165.00 (Chicago Tribune, October 16, 1926, page 9)
Seville	
Valencia	\$255.00 (9/28/1927); \$175.00 February, 1928

## **Brunswick "Suitcase" Portable Models**

Model	Price
101	\$45.00 (January, 1923) with black leatherette covering
101	\$50.00 (4/1/1923) with natural finish leather
102	\$30.00 (6/26/1926) with "tea box" interior lining
?	\$25.00 (January, 1927) covered with blue or black Dupont Fabrikoid
La Parisian	\$10.00 (February, 1927) figured metal case of dark mottled gray
La Parisian	\$15.00 (February, 1927) leatherette covering
?	\$27.50 (9/28/1927) covered with blue or black grained Fabrikoid
106	\$25.00 May, 1928 covered with blue or black leatherette
108	\$35.00 (1/15/1929) metal case with padded coverings of tan leatherette
10	\$15.95 October, 1930
109	\$37.50 October, 1930 with padded covering of tan leatherette
	and gold plated exposed metal parts

## **Brunswick Radio Models** (Many sold without vacuum tubes; tubes were extra cost)

Model	Price	Model	Price
R1		32	
13		CD32	
14	\$148.00 (6/17/1929)	42	
DC14		81	
S14	\$139.00 (February, 1930)	S81	
15		82	
15B		S82	
DC15		521	
17		718RF	
21		5KO	
CD21		5KR	\$95.00 (1/3/1929)
S21	\$154.00 (February, 1930)	5KR6	\$248.00 (1/2/1929)
22		5KRO	\$195.00 (12/11/1928)
DC22		5NO	\$175.00 (11/25/1928)
31		5NC8	\$375.00 (9/15/1928)
DC31			
S31		Model A Elec	tromagnetic
		Cone Speaker	\$35/00 (1/3/1929)

## Brunswick Radio Models (continued)

# **Brunswick Radio Corporation (after 1930)**

Model	Price
5	
10	\$39.50 (table model)
11	\$79.50 (table model); \$29.50 (June, 1931)
12	\$99.50 (June, 1931); \$89.50 (August, 1931); \$84.50 (October, 1931)
15	
16	\$119.50 (June, 1931)
17	\$149.50 (June, 1931), \$139.50 (August, 1931)
22	
24	\$165.50 (June, 1931)
25	\$225.00 (August, 1931); Short and long wave receiver
31	
S31	
32	
33	\$169.50 (June, 1931) Panatrope +Radio
42	\$450.00 (1930); \$265.00 (June, 1931); First Automatic Panatrope + Radio
B15	Battery powered model
<b>5</b> 00	
500	Panatrope + Radio
718-RF	Early table model; battery powered
315	Buckingham AM-FM Delux Radio-Panatrope
	t Radio + Panatrope
	Radio + Panatrope (~1942)
BJ6836	Radio/Phonograph end table; crystal pickup
M-27-8	Short wave radio; mahogany cabinet; Duncan Phyfe round table

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