## MUSIC MACHINES AT THE SMITHSONIAN

by

## Cynthia A. Hoover

Since April, 1971, visitors strolling through the National Museum of History and Technology of the Smithsonian Institution have had an opportunity to see and hear the exhibition "Music Machines--American Style." Originally a special show scheduled to run for a year, it will now remain on view through 1973, if not for a few months longer.

The exhibition features the music-making machines that have revolutionized the performance, reproduction, and dissemination of music in America. The machines themselves range from a 19th-century barrel organ and Thomas Edison's tinfoil cylinder machine to the latest developments in electronic music.

Taped musical examples help to make this a chronology of the music and machines that originated in the United States, and also of some imports that were absorbed-and often transformed--by Americans. The music includes recordings of some of the instruments on exhibit as well as recordings of country music and jazz greats, and classical and popular artists performing music of importance to Americans. A live demonstration of many of these machines is given on weekdays by Durward Center.

The exhibit also includes a small movie theater where visitors can presently see highlights from Arthur Freed M-G-M productions and two Disney reels, both including selections from 1928 to recent years. Previously shown were movies from the 1930s featuring memorable scenes by Busby Berkeley, and Fred Astaire and Ginger Rogers.

As a music and cultural historian, I attempted to emphasize the ways in which science and invention affected the performer and his audience. Technical descriptions of how the machines work have been kept to a minimum. As most of the subjects covered were--and to a large extent still are--outside of my field of expertise, I am extremely grateful to several ARSC members, especially members of the Library of Congress staff, who provided invaluable advice in organizing the exhibition and catalog.

The catalog, sporting a dramatic color photograph of a bubbling Wurlitzer juke box (Model 1015, made in 1946), has 140 pages of text and over 200 photographs showing the instruments themselves as well as contemporary photographs of the instruments in use. Erik Barnouw and Irving Kolodin wrote introductory notes on broadcasting and recording. This catalog is available from the Superintendent of Documents, United States Printing Office, Washington, D.C. 20402, for \$2.75.

The resources of the Smithsonian Institution provided much of the material for the exhibition. The Division of Mechanical and Civil Engineering supplied all of the phonographs from the acoustic recording period, many of them from the fine collection donated in 1964 by Oliver Read. In addition to Read's machines there are an 1878 Edison tinfoil cylinder machine, Berliner's own 1893 crank-type Gramophone and an Edison Home Phonograph complete with a storage cabinet for 100 cylinders and a hand-written list of the nearly 90 cylinders stored inside. Also, from this division, came one of the most spectacular visual elements of the exhibit, a round stained glass window (15 feet in diameter) depicting the famous Victor trademark. Nipper listening to His Master's Voice. This was one of four windows installed in the Victor tower in Camden in 1915 and replaced in 1969 by the RCA symbol. Edwin Battison, now assisted by Danny Morris, deals with requests concerning this material.

The Division of Electricity supplied early radio microphones and receiving sets as well as recording equipment from the beginning of the electric recording period to the present. Photographs shown in the catalog from the Clark Collection and the Hammer Collection are available from this division as are early earphones, high-fidelity equipment and archival material relating to these subjects. Elliott Sivowitch was and is especially helpful in these areas.

A separate archival source is the Warshaw Collection of Business Americana, now under the direction of John Hoffman in the Division of Agriculture and Mining. This collection of miscellany, ranging from posters advertising 1890s phonograph concerts to trade cards from the most obscure cigar maker, has a wealth of material that is just being cataloged and made available for use. I shared many fascinating hours with Laura Newsom, who provided invaluable research assistance throughout the project, in going through portions of this collection.

The Division of Musical Instruments (of which I am a member) provided the mechanical musical instruments-the Violano Virtuoso, the 1850s barrel organ, the player pianos--and the electronic musical instruments, as well as all the organization. In the process, we acquired a fine Regina disc changer, a Gabler pump player, many Violano rolls, and a strong interest in the player piano and the importance of preserving piano rolls for research and musical enjoyment.

Advocates of exhibitions that can include lively activities, we designed the area devoted to a 1920s radio station to serve also as a stage. In the spring of 1971 the stage served as a classroom for a ten-week course, organized by James Weaver (Musical Instruments staff), based on the exhibition. Lectures included James Smart on the history of acoustic recording, Gus Meade on early country music records and radio broadcasts, Richard Spottswood on race records, Elliott Sivowitch on the history of broadcasting, Ted Mack on Ted Mack, Carl Scheele on music of the 1940s, John Fesperman (Musical Instruments staff) on film music of the 1930s, Joel Chadabe on electronic music and Cynthia Hoover on player pianos and the alliance of music and machines.

In October, 1971, a panel including Erik Barnouw, John Hammond, Paul Kapp, Arthur LaBrew, and myself discussed the topic "The Impact of Mechanization on Popular Music in America" as part of the national meetings of the American Studies Association. (Scheduled panelists Irving Kolodin and Ronald Byrnside participated only from phone booths at "fogged in" airports.) Joshua Rifkin played Joplin there in December, 1971. Henry Pleasants spoke on "Bel Canto in Popular Singing" in March, 1972. A day of tribute to Arthur Freed during his visit, the opening reception of the beginning of National Public Radio, a visit from the national gatherings of the Music Library Association, Music Critics Association, the International Association of Concert and Festival Managers, and the Wireless Society are some of the events held in the hall since its opening.

The exhibit, quite unintentionally, has evoked nostalgia from its visitors and brought us increased correspondence from collectors of machines and records, as well as stained glass societies and movie buffs. Although the Division of Musical Instruments is willing to assist with requests whenever possible, we recommend that specific questions be sent to Divisions directly responsible for the holdings listed earlier in the article.

From the beginning the combination of music and machines has presented a challenge to the sensitive performer and listener. In 1906 John Philip Sousa predicted that mechanical music would lead to the disappearance of the amateur musician and to "a marked deterioration in American music and musical taste." While he was not totally wrong, many of us who grew up in small communities where few professional musicians appeared know how important recorded music, broadcasting, and movies were in introducing music into our lives and even in spurring some of us on to lives in music. This exhibition is intended to convey that spirit

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