A SHORT HISTORY OF THE CYLINDER PHONOGRAPH

George List

As originally developed by Thomas Edison in 1877 the phonograph was a very crude apparatus indeed. A sheet of tinfoil was wrapped around a drum which was rotated by hand. The tinfoil was acted upon by rigidly fixed cutting and playback styli attached to a diaphragm. Although this machine stirred up considerable interest it had little practical value since the reproduction was extremely poor and the speed inconstant. After several years of experimentation Chichestor A. Bell and Charles Sumner Tainter applied in 1885 for a patent on the graphaphone, an improved version of Edison's phonograph, in which the tinfoil was replaced by wax coated cardboard cylinders. The loosely mounted styli, in later development called the "floating" styli, permitted a higher degree of fidelity in reproduction. As commercial exploitation of the graphaphone began Edison devised an improved phonograph following the lead of Bell and Tainter. His principal improvement was the solid wax cylinder which could be shaved and re-used.

The new industry thus established, the manufacture and distribution of cylinder recorder-players and cylinder records, developed very rapidly. The first models were operated by a foot treadle but the equipment was soon provided with electric motors powered by storage batteries. However, the apparatus was bulky, awkward and expensive. Neither the graphaphone nor phonograph received much acceptance as office dictating machines but were enormously successful as coin-operated "juke boxes" of their day and a wide variety of commercial cylinders of popular music were manufactured for use in this fashion.

Ethnologists were quick to seize upon the advantages offered by the phonograph. J. Walter Fewkes was apparently the first ethnologist to use the newly developed equipment in field recording of the Passamaquoddy Indians on the Bay of Fundy in 1889. ("Contributions to Passamaquoddy Folk-lore," Journal of American Folklore, October-December, 1890). In succeeding years he recorded the Zunis and the Hopis.

PROBLEMS OF ARCHIVES (cont.)

is to make clear the contents of any archive so that the holder, knowing his own resources, may develop them, exchange items with collectors and scholars, and thus fill in the details of the national holdings. Thus, there emerges the necessity for establishment and acceptance of a nation-wide system, known and used by archives, large and small, and into which new materials will fit easily, and in the use of which students may be trained.

Experimentally, the various systems sent in response to inquiry are being tested in the Archives of Wayne State University.

Spring-driven cylinder phonographs in the collection of the Archives of Folk and Primitive Music. From left to right: Edison Standard Phonograph, 1898; Columbia Graphaphone, 1897; and Edison Home Phonograph, 1903.

at Walpi. Benjamin I. Gilman, who published studies of the recordings collected by Fewkes, informs us ("Hopi Songs," A Journal of American Ethnology and Archeology, Vol. V, pp. 28-29, 1930) that Fewkes' first recordings were made with a phonograph operated by a treadle and that he later used a machine operated by a battery-powered electric motor. The use of the phonograph in collecting spread very rapidly. Comparative musicologists of the Berlin school, Carl Stumpf, E. M. von Hornbostel and O. Abraham of the Psychologisches Institut at the University of Berlin, were publishing articles based on folk and primitive music recorded on phonograph cylinders by the turn of the century.

In 1894 the American Graphophone Company introduced spring-driven machines suitable for home use. Two years later Edison began manufacture of a similarly operated phonograph. The spring-driven equipment was lighter, more portable and inexpensive. These phonographs soon came into tremendous vogue. In addition to mass production in the United States large scale production was developed in France by the Pathé brothers. Manufacture also spread to England and Germany. The new machines were a boon to ethnoologists. They were very light and, requiring no electric supply, could be carried almost anywhere as long as care was exercised to protect the wax cylinders from extreme temperatures.

(To be continued in the next issue)

EDITOR'S NOTE

The response to the first issue of THE FOLKLORE AND FOLK MUSIC ARCHIVIST has been very gratifying. We offer our sincere thanks to the many readers who were kind enough to write to us. Your good wishes and interesting comments are much appreciated. Further comments, suggestions or contributions will be most welcome.

THE FOLKLORE AND FOLK MUSIC ARCHIVIST is distributed without charge. Should you wish your name to be retained on our mailing list please so inform us. Address communications to George List, Editor.