range recording, diamond styli and Mr Bade, was accurate multiple speakers, mechanically reproduced music is (one is frequently assured) technically near perfection. And yet there are still those who, from sentiment, conservatism, or simply an ear tuned to more antique frequencies. continue to find pleasure in the thin, sweet notes of the old-fashioned music box.

In an NZBS programme, A Memory of Music Boxes (YAs, 4YZ, 9.30 a.m., Sunday, June 30), those who have never heard a genuine old music box, or who are unaware how highly developed they became, will have a chance to refresh their memories with the sounds of music boxes recorded all over New Zealand, And they will hear, too, in this unusual documentary, several New Zealanders who have found the collecting and study of them a fascinating pur-

of these experts, Northcote Bade, of Upper Hutt—who is Honorary Curator of Cultural History for the Dominion Museum and a well-known organiser of historical exhibitions-told The Listener something about the development of the musical box and the differences between those of today and those that entertained our grand-

"The best known music boxes today are the toys which are used to hold cigarettes, trinkets and cards," he said. "The same kind of mechanical music is also played by children's toys and nursery chairs, and musical movements have even been fitted to jugs, flagons and other containers. Among these moderns is the Coronation souvenir box which plays 'God Save the Queen' when the handle is turned. One of the most spectacular toys of this kind I have seen recently was a huge humming top which played 'Happy Birthday to You' while it was spinning."

But musical boxes weren't always considered toys, Mr Bade continued, for there was once a time when they played serious music. He then showed us an 1895 encyclopaedia definition of the musical box as "a small instrument having a toothed barrel operating on vibrating metal tongues which plays one or more tunes on being wound

up." This definition, said for the common music box of that period, but tunes were not always played by a barrel, nor always played on vibrating metal tongues.

"Without going too deeply into history, we could say that the music box came from two sources-first, the barrel organ; second, the musi-cal clock. The barrel organ was known in the 17th century, and got its name from the large wooden drum or revolving barrel on which tunes were pegged; the pegs operating the desired valves of the organ by means of levers."

The bellows for the organ were usually operated separately, while the barrels, turned by hand, were interchangeable. There were usually several tunes to each barrel, sufficient in the case of a church organ for a service.

"Musical clocks were developed as early as the 15th century," Mr Bade went on, "and the principle involved was still much the same in the 18th century, though by then clock makers had reached such a high level of skill that they could incorporate musical movements in pocket watches." The tunes in these clocks, added Mr Bade, were played on separate vibrating tongues by a revolving disc studded with steel pins.

"At this stage, musical movements became divorced from time-pieces, and found their way into walking-stick heads, snuff-boxes, seals, and all sorts

THIS smaller music box.

of things; and from this divorce came the music box industry, as distinct from the industry of clockmaking. But the new industry didn't make any real progress until the introduction of the cylinder principle of the barrel organ-on a much smaller scale, of course.

By 1840 one could play up to twelve tunes on a single cylinder, and the cylinders themselves had greatly increased in length, some being as much as two feet long. The year 1850 saw an even greater development, but a development that had in fact been anticipated by the musical clockmakers of over a century before. This was the addition of effects, so that the listener to the music box could hear the tones of the banjo and mandolin; drums, bells and even organ notes. About the same time, or a little later, the barrel organ technique of interchangeable cylinders was applied to music boxes.

"These cylinders were heavy, easily damaged, and difficult to store, so to bring the wheel full cycle, discs as used in musical clocks—which could be stored flat in large quantities-were reintroduced. These had either punched projections to engage the notes, or holes like those on player-piano rolls. This change from cylinder to disc, by the way, foreshadowed the similar change in the gramophone."

Strangely enough, Mr Bade said, during the transition from music box to gramophone there appeared something that didn't quite belong to either category. This was a music box that played steel discs, and could also be adapted

to play disc gramophone records.
"In New Zealand," said Mr Bade,
"the music played by our first colonists came from a barrel organ brought into the country by Mr Kendall, of the Church Missionary Society. The music for the Christmas service conducted by Samuel Marsden in the Bay of Islands was played on that machine, and I have often wondered if it still exists somewhere in New Zealand."

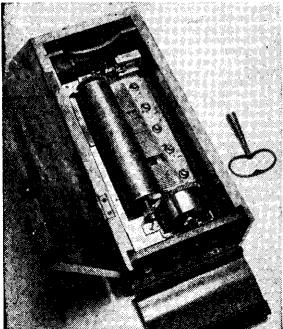
Many of the music boxes that were brought in by the first colonists are still carefully preserved by their descend-ants, or by collectors in various parts of the country, said Mr Bade. Throughout the whole of the colonial era, lonely back-country huts, country dance halls, the tents of the gold seekers, and the whaling settlements were cheered and made more homely by the tinkling tunes

of the music box. Just as historic instruments are preserved in New Zealand museums-Colenso's barrel organ in the Hawke's Bay Museum, for example—some museums also have collections of music boxes. Examples of those in the Wanganui Museum will be heard in A Memory of Music Boxes, as well as some from what is perhaps New Zealand's bestknown collection, that of F. N. Jones, of Nelson.



N.P.S. photograph

NORTHCOTE BADE with one of his music boxes. This one dates from 1880-90, and can play 12 tunes-among them "The Little Girls in Blue" and excerpts from "The Mikado"



also from Mr Bade's collection, dates from 1823, and plays four tunes