(19) **United States**

(12) **Patent Application Publication** (10) Pub. No.: **US 2024/0223211 A1**

NAKANISHI et al. (43) **Pub. Date:** **Jul. 4, 2024**

(54) **CONVERSION DEVICE, MEMORY SYSTEM, DECOMPRESSION DEVICE, AND METHOD**

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(57) **ABSTRACT**

According to one embodiment, a conversion device includes a demultiplexer, first to Nth extractors and a deinterleave unit. The demultiplexer extracts first to Nth substreams from a first compressed stream. The first to Nth substreams are placed in order in the first compressed stream and include first variable-length codes to Nth variable-length codes into which first symbols to Nth symbols of a symbol string have been converted. The first to Nth extractors extract the first variable-length codes to the Nth variable-length codes from the first to Nth substreams. The deinterleave unit reorders the first variable-length codes to the Nth variable-length codes in accordance with the symbol string and outputs a second compressed stream.