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(54) **ENCODING CIRCUIT, DECODING CIRCUIT, AND DECODING METHOD** (52) **U.S. CL.**
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(71) Applicant: **Mitsubishi Electric Corporation,**
Tokyo (JP)

(72) Inventor: **Takafumi FUJIMORI,** Tokyo (JP)

(73) Assignee: **Mitsubishi Electric Corporation,**
Tokyo (JP)

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(57) **ABSTRACT**

An encoding circuit includes: a polar encoding unit capable of encoding a polar code of N bits; a frozen bit adding unit that generates a first sequence by adding frozen bits to an input signal; and a bit arrangement changing unit that: generates a second sequence of N bits by arranging the first sequence in the second sequence according to an arrangement rule dependent on a ratio of N_f bits, being a code length of a polar code to be encoded and being N bits or less, and N bits, and setting bit values at bit positions other than positions where the first sequence is arranged in the second sequence to zero when N_f bits are less than N bits; and inputs the second sequence to the polar encoding unit. A code word of N_f bits is generated by thinning processing based on a result of encoding the second sequence.

