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(54) Title: COMPUTERIZED DECISION SUPPORT TOOL AND MEDICAL DEVICE FOR RESPIRATORY CONDITION MONITORING AND CARE

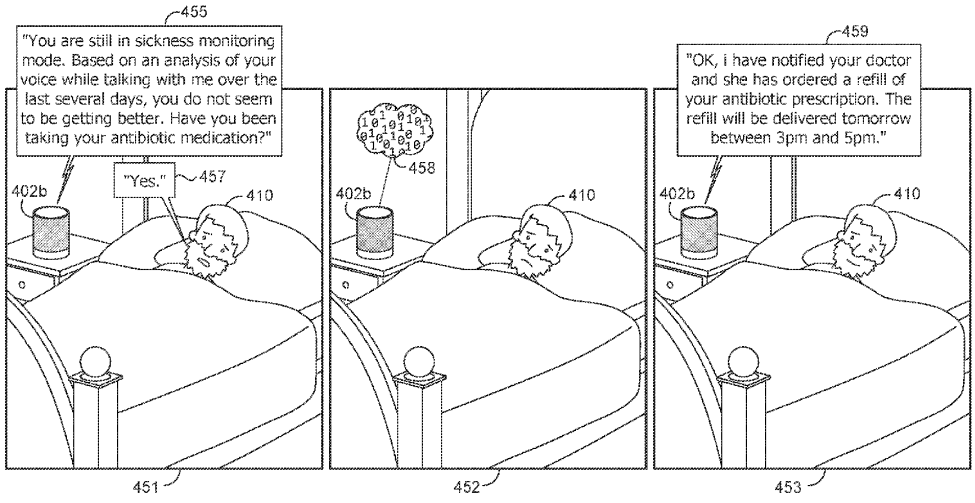

FIG. 4F

(57) Abstract: Technology is disclosed for monitoring a user's respiratory condition and provide decision support by analyzing a user's audio data. Spoken phonemes may be detected within audio data, and acoustic features may be extracted for the phonemes. A distance metric may be computed to compare phoneme feature sets of a user. Based on the comparison, a determination about the user's respiratory condition, such as whether the user has a respiratory condition (e.g., an infection) and/or whether the condition is changing, may be made. Some aspects include predicting the user's respiratory condition in the future utilizing the phoneme feature sets. Decision support tools in the form of computer applications or services may utilize the detected or predicted respiratory condition information to initiate an action for treating a current condition or mitigating a future risk.

[Continued on next page]

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