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(54) **DETECTING FALLS USING A MOBILE DEVICE**

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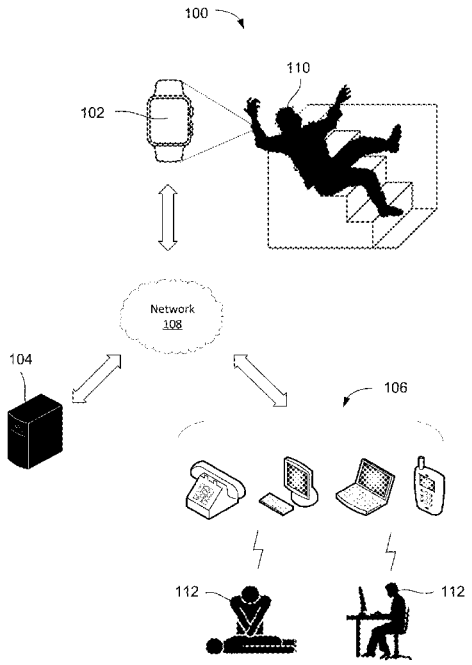
(57) **ABSTRACT**

In an example method, a mobile device obtains a signal indicating an acceleration measured by a sensor over a time period. The mobile device determines an impact experienced by the user based on the signal. The mobile device also determines, based on the signal, one or more first motion characteristics of the user during a time prior to the impact, and one or more second motion characteristics of the user during a time after the impact. The mobile device determines that the user has fallen based on the impact, the one or more first motion characteristics of the user, and the one or more second motion characteristics of the user, and in response, generates a notification indicating that the user has fallen.