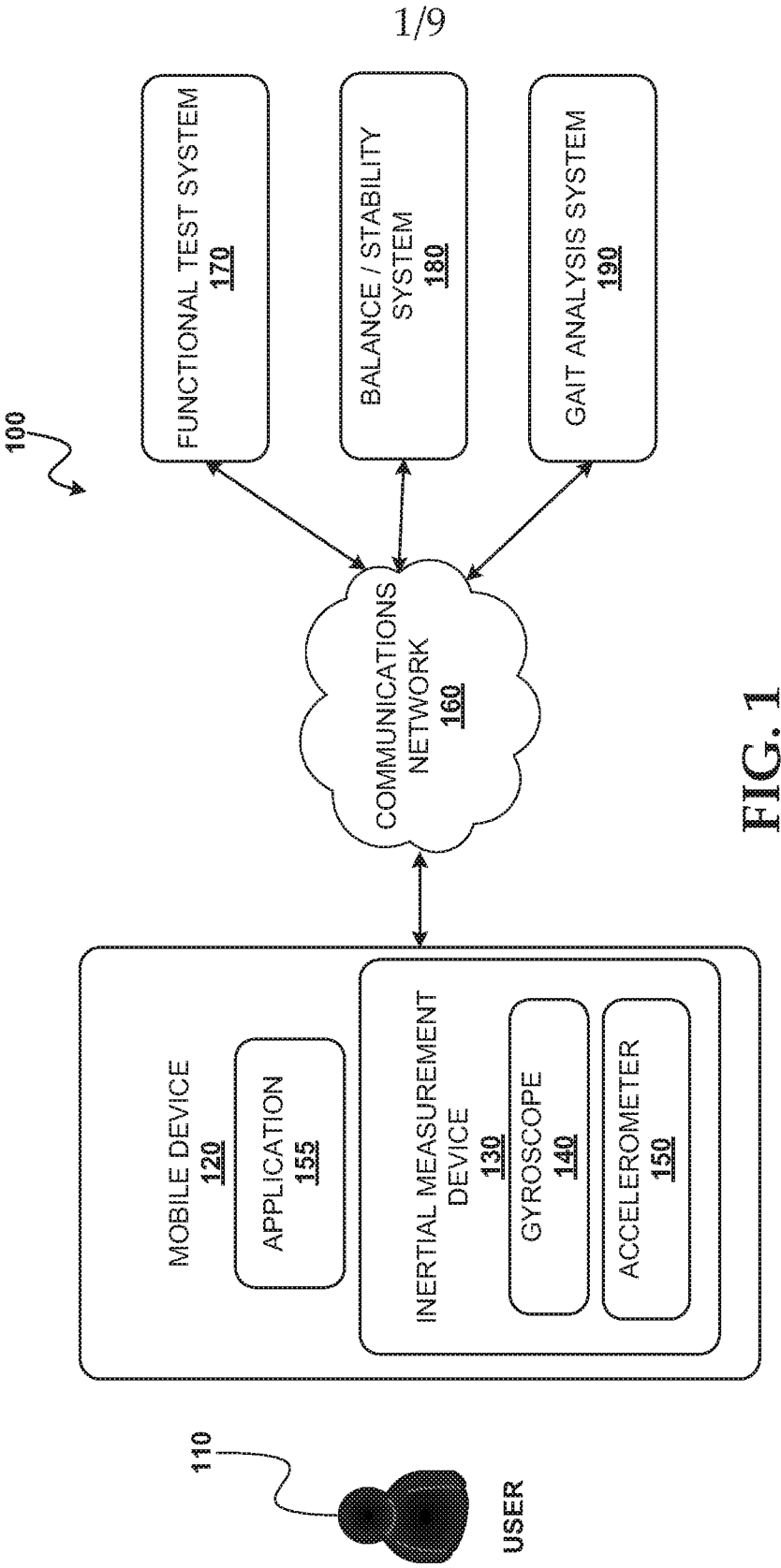




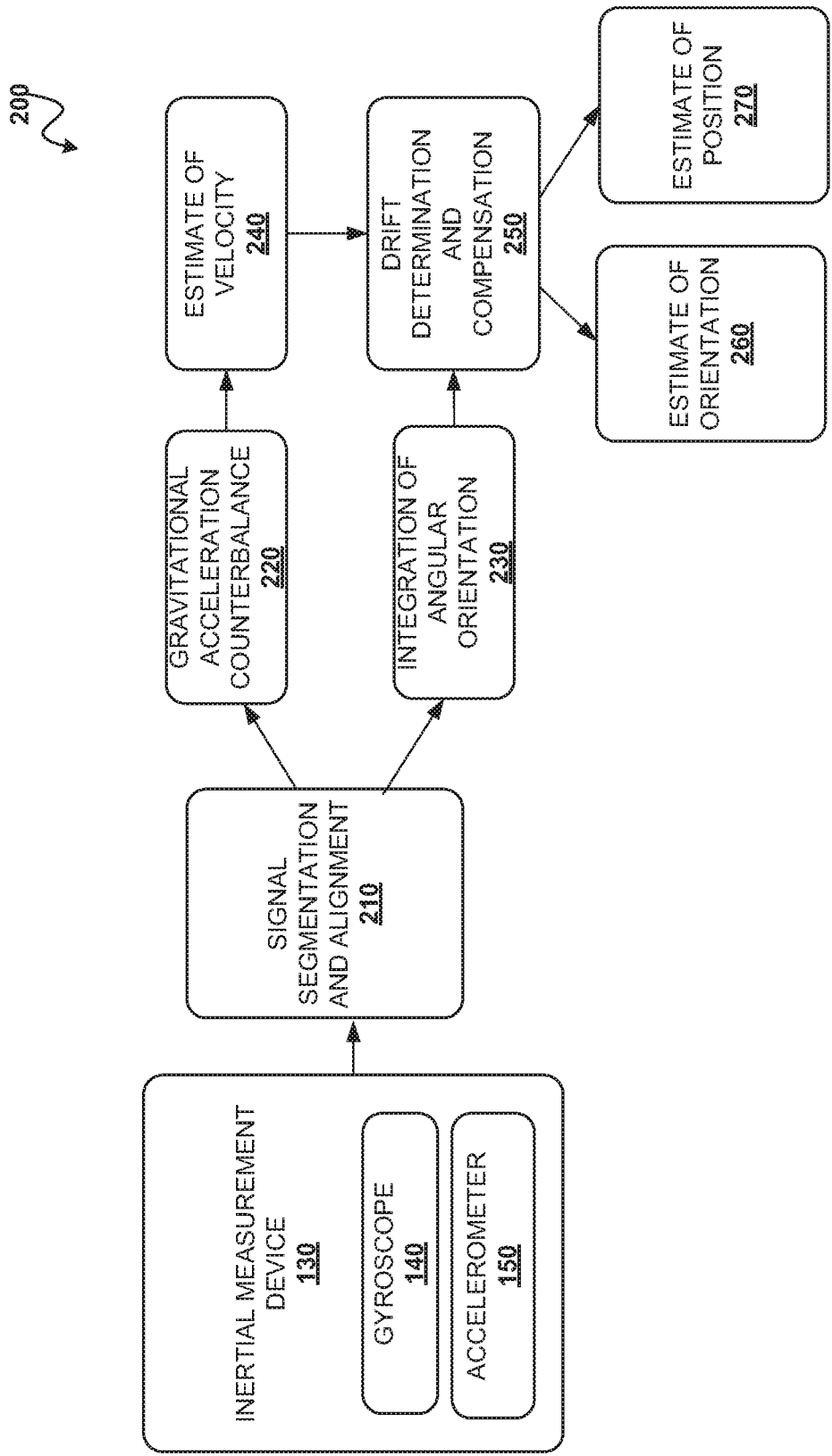
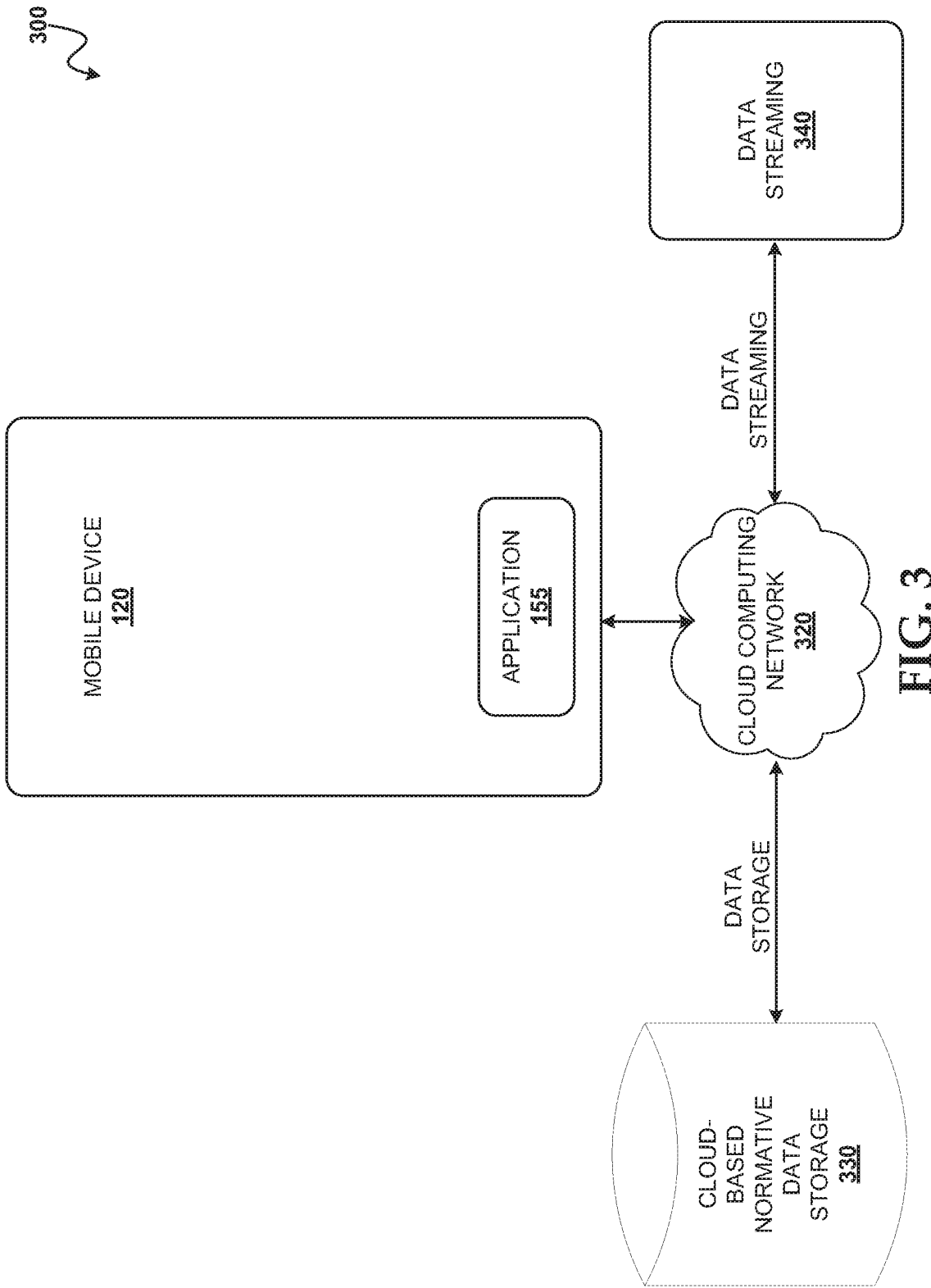


FIG. 2



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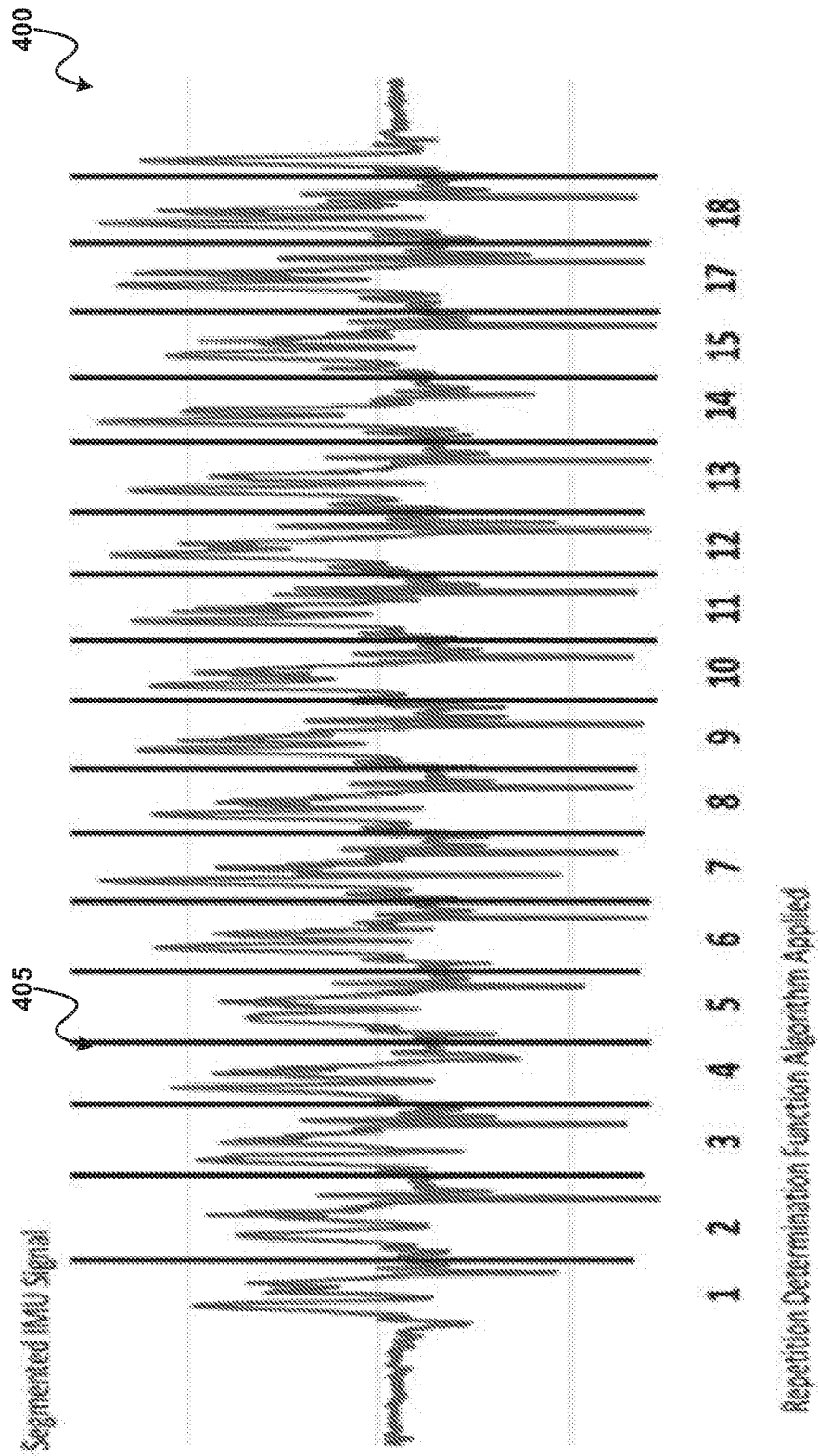


FIG. 4A

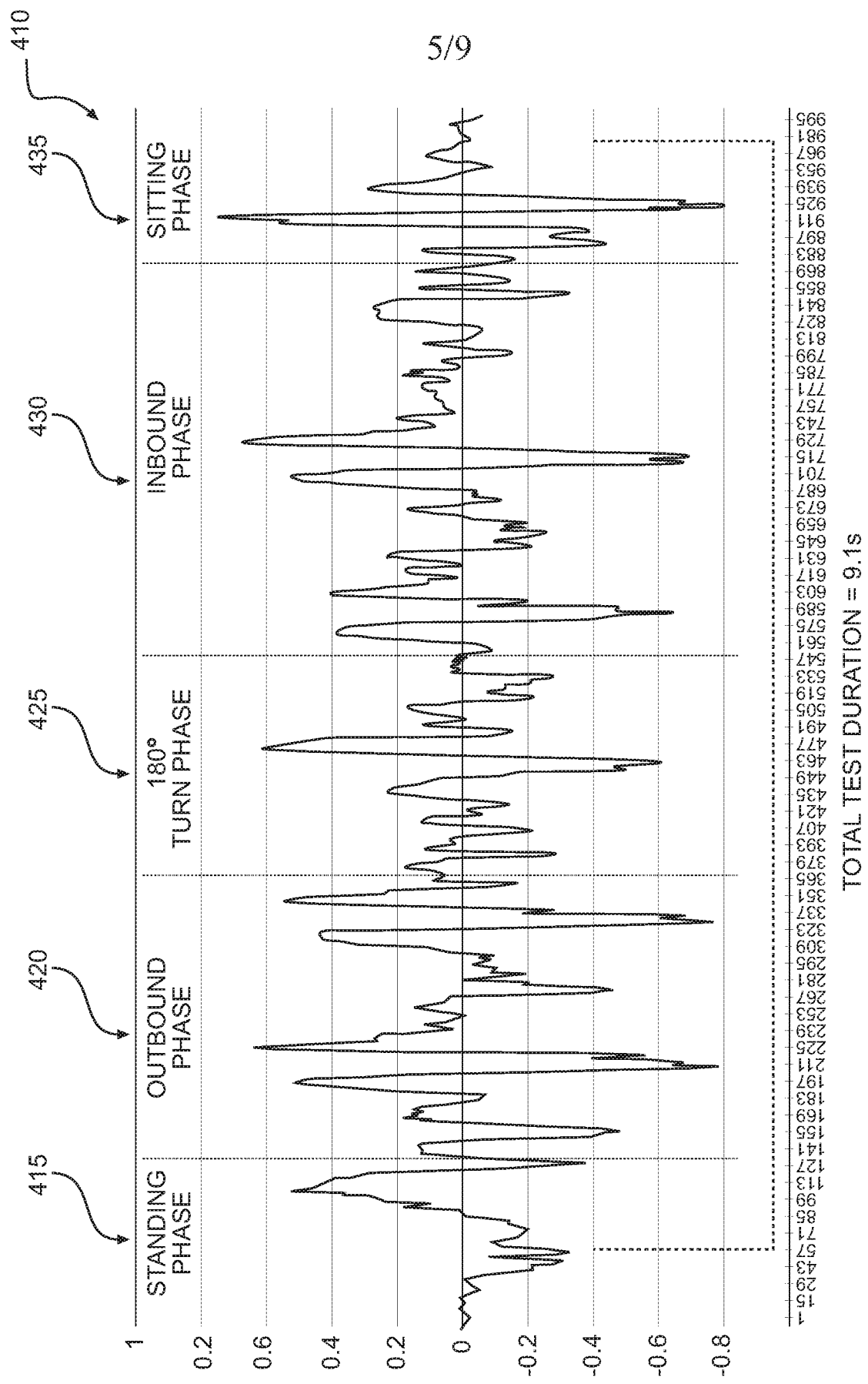


FIG. 4B

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Motion Task	Area of Assessment
Timed Up-and-Go	Static stability, dynamic stability, mobility and falls risk.
30 second Chair Stand	Lower body muscular strength, Lower body muscular endurance and falls risk.
Four Stage Balance Test	Static stability, postural stability, and falls risk.
Gait Analysis	Dynamic stability, mobility and falls risk.
Functional Reach Test	Balance, stability, limits of stability and falls risk
Sit and Reach Test	Lower body flexibility.
5 Chair Stand Test	Lower body muscular strength.
10 Chair Stand Test	Lower body muscular strength and muscular endurance.
Arm Curl Test	Upper extremity muscular strength and upper extremity muscular endurance.
Postural Stability	Static stability

FIG. 5A

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Motion Task	Extracted Features
Timed Up-and-Go	Time to completion, rate to complete standing task, rate to complete sitting task, turn rate, anteroposterior sway, mediolateral sway, gait characteristics (see gait).
30 second Chair Stand	Total repetitions, time rate of repetition completion decay, anteroposterior sway, mediolateral sway.
Four Stage Balance Test	Anteroposterior sway, mediolateral sway, total magnitude of displacement, success/failure of stage completion.
Gait	Cadence, linear velocity, stride length, step length, stance and swing times.
Functional Reach Test	Resultant displacement, vertical displacement, mediolateral displacement.
Sit and Reach Test	Resultant displacement, vertical displacement, mediolateral displacement.
5 Chair Stand Test	Total repetitions, time rate of repetition completion decay, anteroposterior sway, mediolateral sway.
10 Chair Stand Test	Total repetitions, time rate of repetition completion decay, anteroposterior sway, mediolateral sway.
Arm Curl Test	Total repetitions, time rate of repetition completion decay, resultant displacement, mediolateral displacement.
Postural Stability	Anteroposterior sway, mediolateral sway, total magnitude of displacement.

FIG. 5B

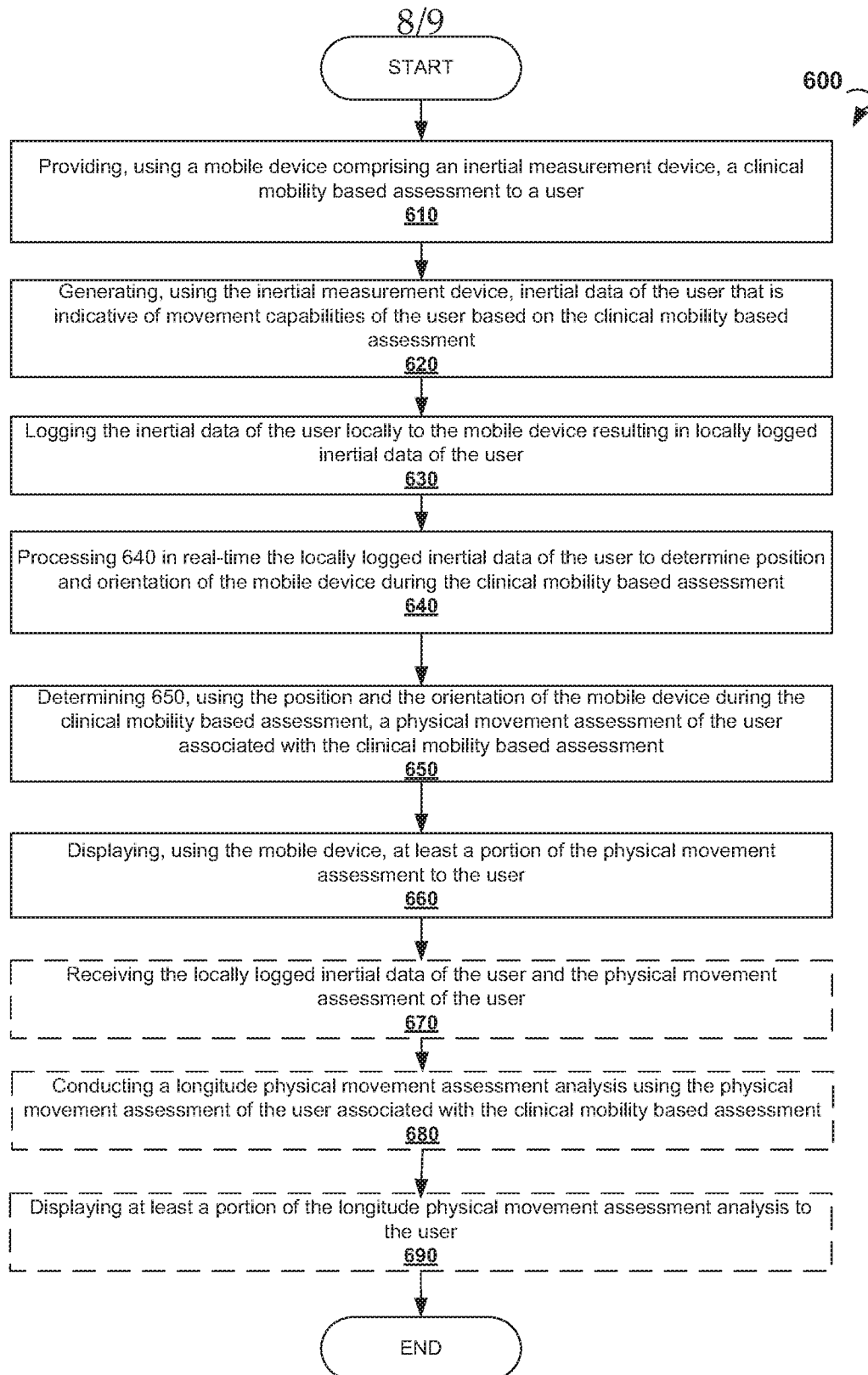


FIG. 6

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