FIG. 5B

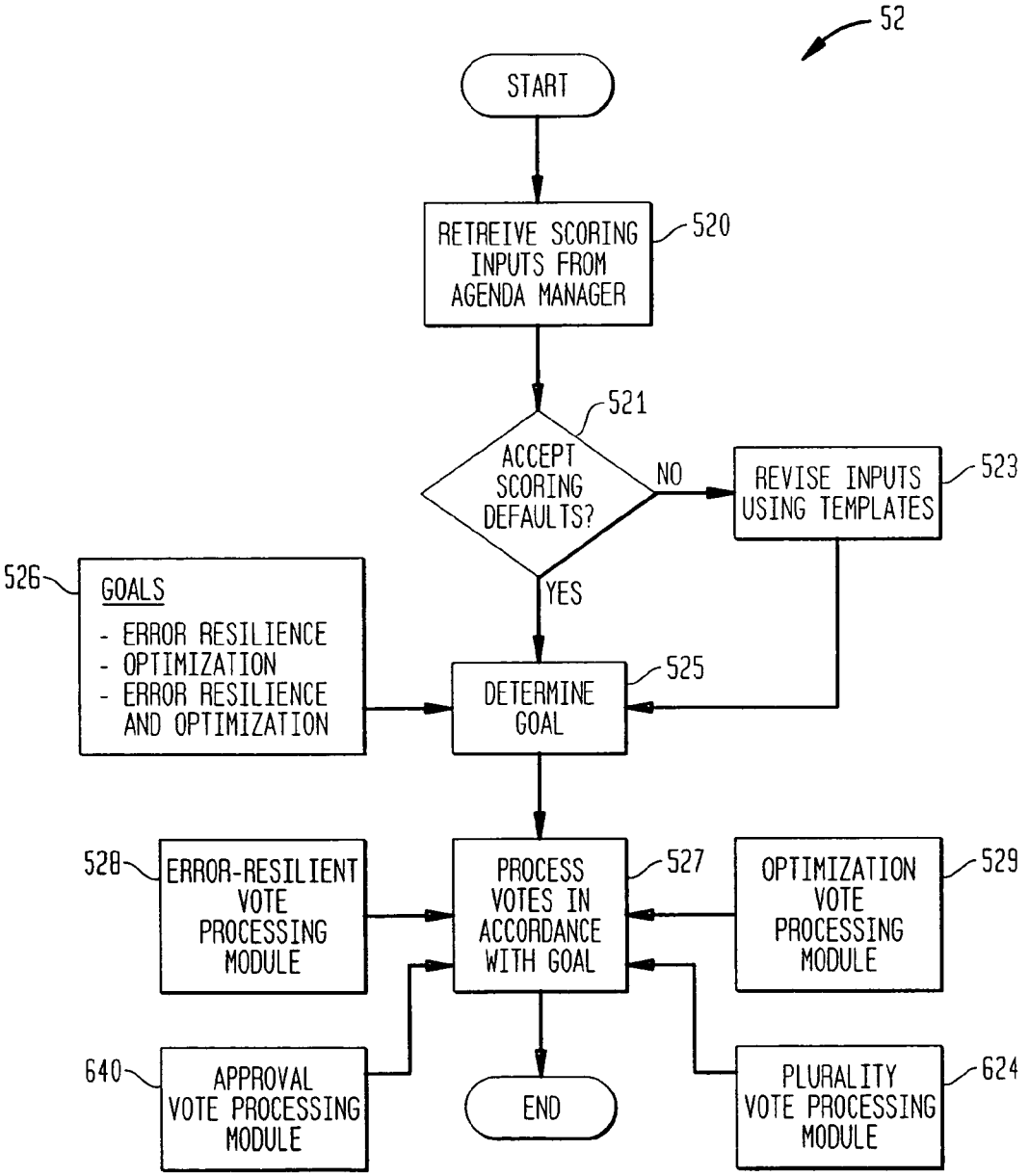

52
START
RETREIVE SCORING INPUTS FROM AGENDA MANAGER
520
521
ACCEPT SCORING DEFAULTS?
NO
REVISE INPUTS USING TEMPLATES
523
YES
526
GOALS
- ERROR RESILIENCE
- OPTIMIZATION
- ERROR RESILIENCE AND OPTIMIZATION
DETERMINE GOAL
525
528
ERROR-RESILIENT VOTE PROCESSING MODULE
PROCESS VOTES IN ACCORDANCE WITH GOAL
527
OPTIMIZATION VOTE PROCESSING MODULE
529
640
APPROVAL VOTE PROCESSING MODULE
END
PLURALITY VOTE PROCESSING MODULE
624

FIG. 5C

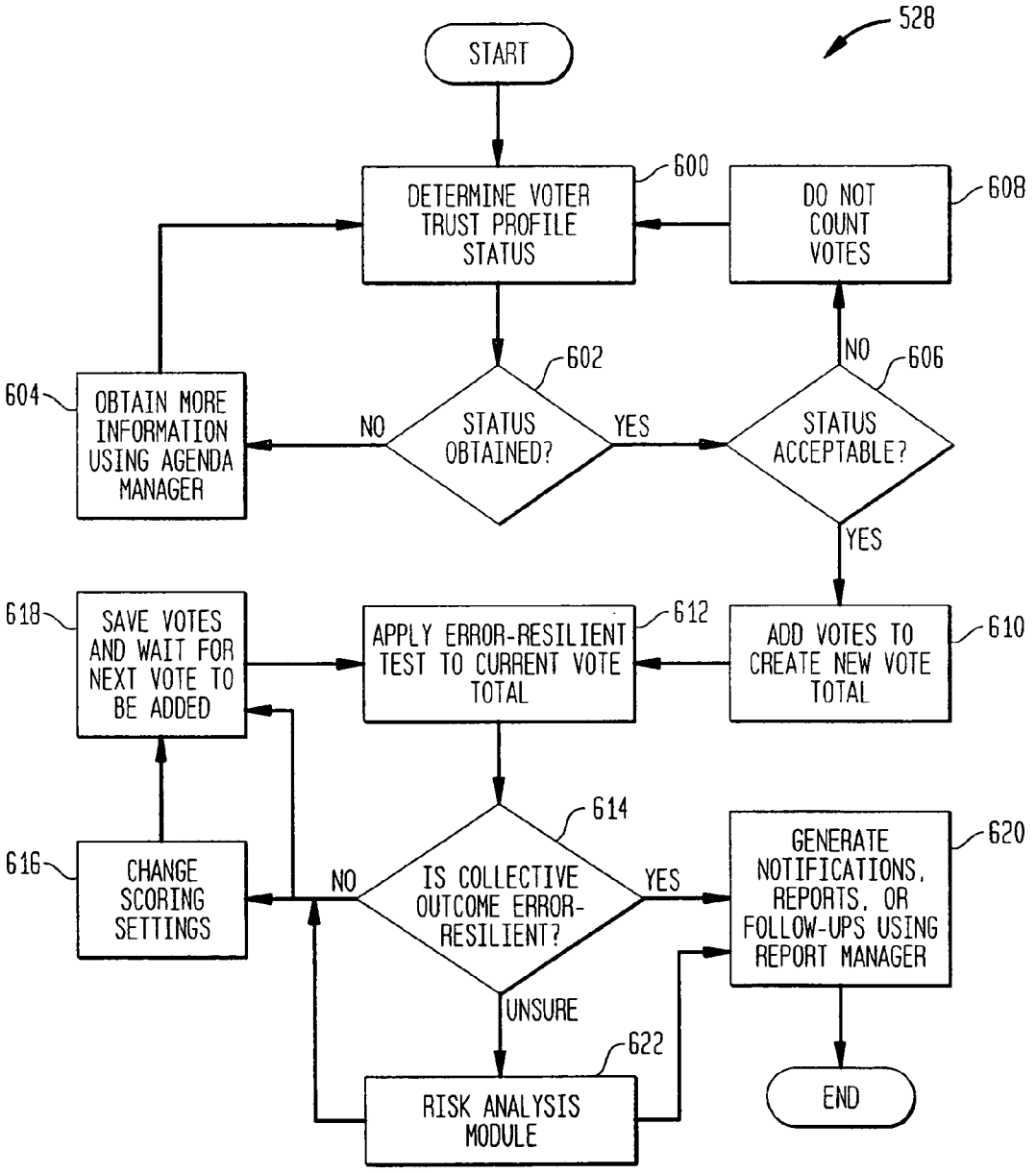

528
START
DETERMINE VOTER TRUST PROFILE STATUS
600
DO NOT COUNT VOTES
608
602
STATUS OBTAINED?
NO
YES
604
OBTAIN MORE INFORMATION USING AGENDA MANAGER
606
STATUS ACCEPTABLE?
NO
YES
618
SAVE VOTES AND WAIT FOR NEXT VOTE TO BE ADDED
APPLY ERROR-RESILIENT TEST TO CURRENT VOTE TOTAL
612
ADD VOTES TO CREATE NEW VOTE TOTAL
610
614
616
CHANGE SCORING SETTINGS
NO
IS COLLECTIVE OUTCOME ERROR-RESILIENT?
YES
620
GENERATE NOTIFICATIONS, REPORTS, OR FOLLOW-UPS USING REPORT MANAGER
UNSURE
622
RISK ANALYSIS MODULE
END

FIG. 5D

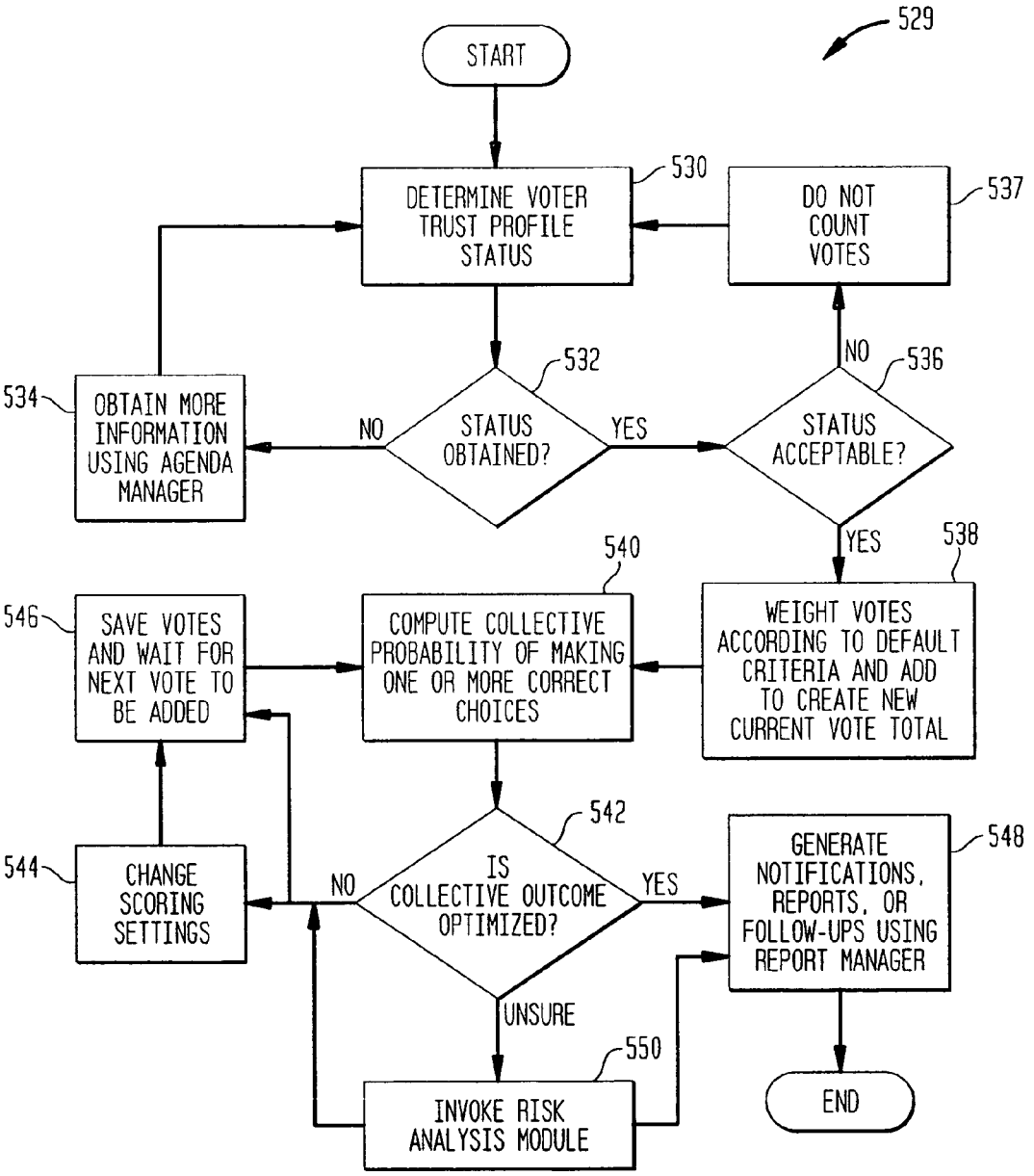

529
START
530
DETERMINE VOTER TRUST PROFILE STATUS
537
DO NOT COUNT VOTES
532
534
OBTAIN MORE INFORMATION USING AGENDA MANAGER
NO
STATUS OBTAINED?
YES
NO
536
STATUS ACCEPTABLE?
YES
538
540
546
SAVE VOTES AND WAIT FOR NEXT VOTE TO BE ADDED
COMPUTE COLLECTIVE PROBABILITY OF MAKING ONE OR MORE CORRECT CHOICES
WEIGHT VOTES ACCORDING TO DEFAULT CRITERIA AND ADD TO CREATE NEW CURRENT VOTE TOTAL
542
544
CHANGE SCORING SETTINGS
NO
IS COLLECTIVE OUTCOME OPTIMIZED?
YES
548
GENERATE NOTIFICATIONS, REPORTS, OR FOLLOW-UPS USING REPORT MANAGER
UNSURE
550
INVOKE RISK ANALYSIS MODULE
END

FIG. 5E

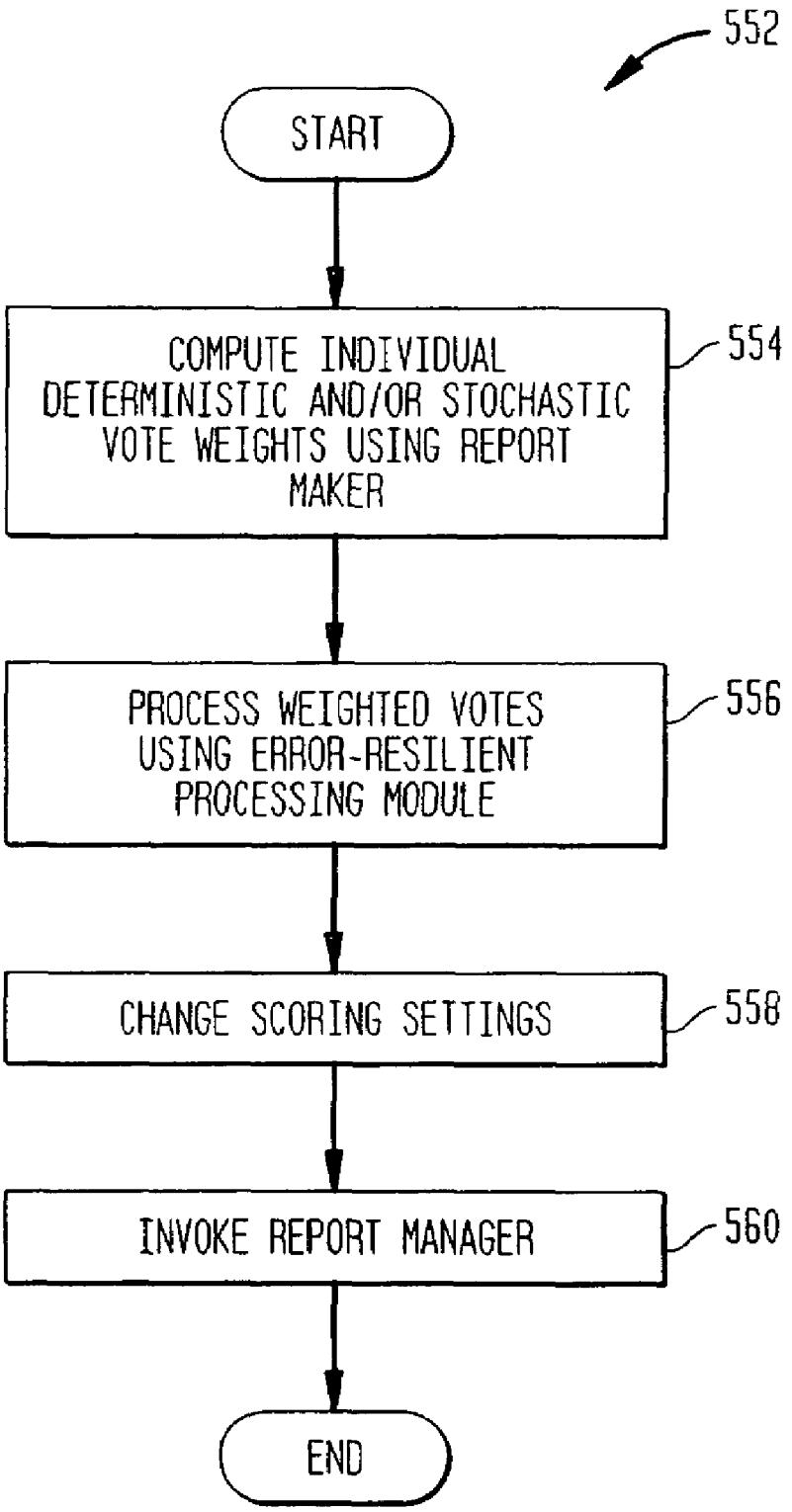

552
START
COMPUTE INDIVIDUAL DETERMINISTIC AND/OR STOCHASTIC VOTE WEIGHTS USING REPORT MAKER
554
PROCESS WEIGHTED VOTES USING ERROR-RESILIENT PROCESSING MODULE
556
CHANGE SCORING SETTINGS
558
INVOKE REPORT MANAGER
560
END

FIG. 5F

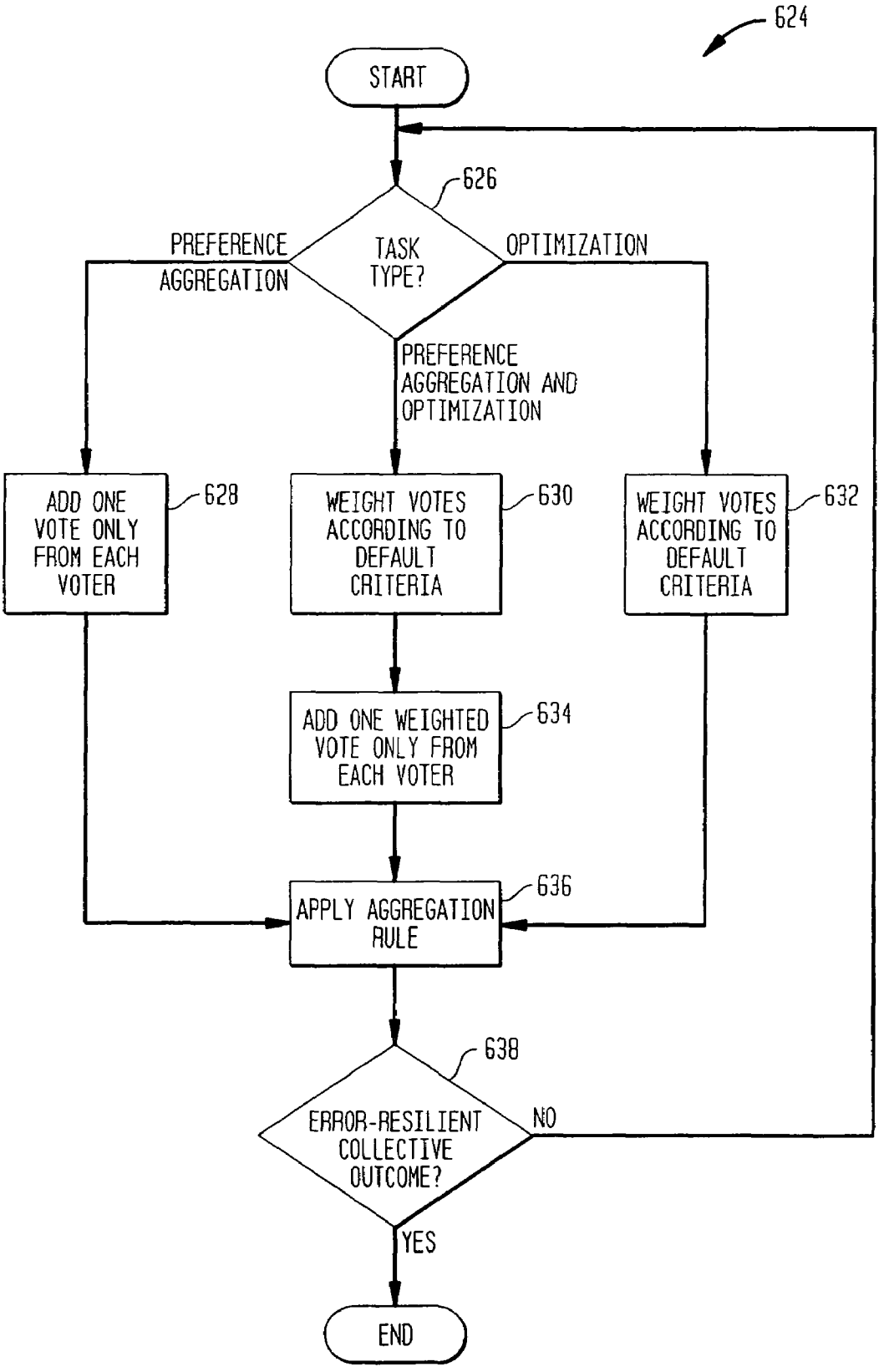

624
START
626
TASK TYPE?
PREFERENCE AGGREGATION
OPTIMIZATION
PREFERENCE AGGREGATION AND OPTIMIZATION
ADD ONE VOTE ONLY FROM EACH VOTER
628
WEIGHT VOTES ACCORDING TO DEFAULT CRITERIA
630
WEIGHT VOTES ACCORDING TO DEFAULT CRITERIA
632
ADD ONE WEIGHTED VOTE ONLY FROM EACH VOTER
634
APPLY AGGREGATION RULE
636
638
ERROR-RESILIENT COLLECTIVE OUTCOME?
NO
YES
END

FIG. 5G

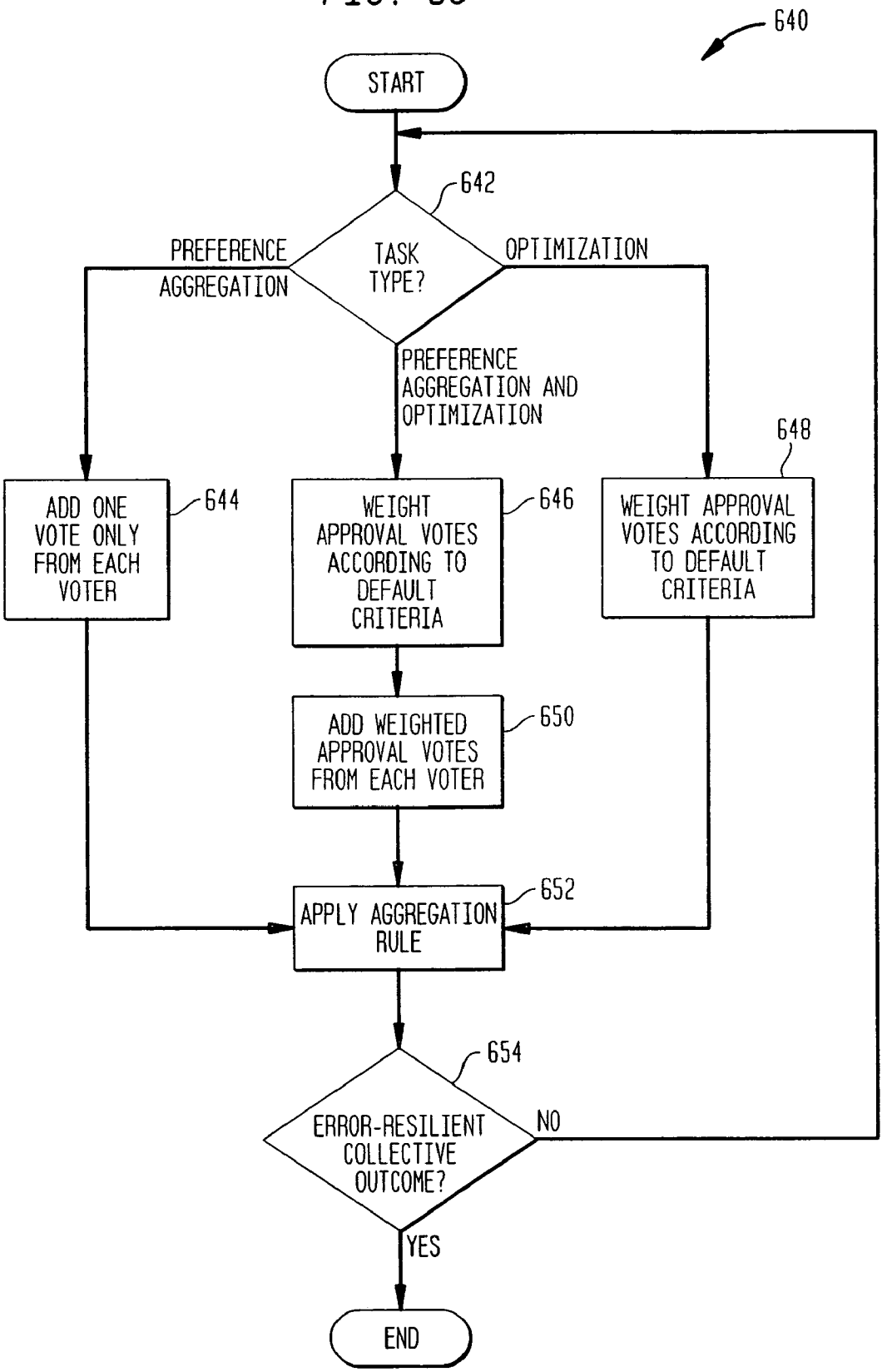

640
START
642
TASK TYPE?
PREFERENCE AGGREGATION
OPTIMIZATION
PREFERENCE AGGREGATION AND OPTIMIZATION
644
ADD ONE VOTE ONLY FROM EACH VOTER
646
WEIGHT APPROVAL VOTES ACCORDING TO DEFAULT CRITERIA
648
WEIGHT APPROVAL VOTES ACCORDING TO DEFAULT CRITERIA
650
ADD WEIGHTED APPROVAL VOTES FROM EACH VOTER
652
APPLY AGGREGATION RULE
654
ERROR-RESILIENT COLLECTIVE OUTCOME?
NO
YES
END

FIG. 5H

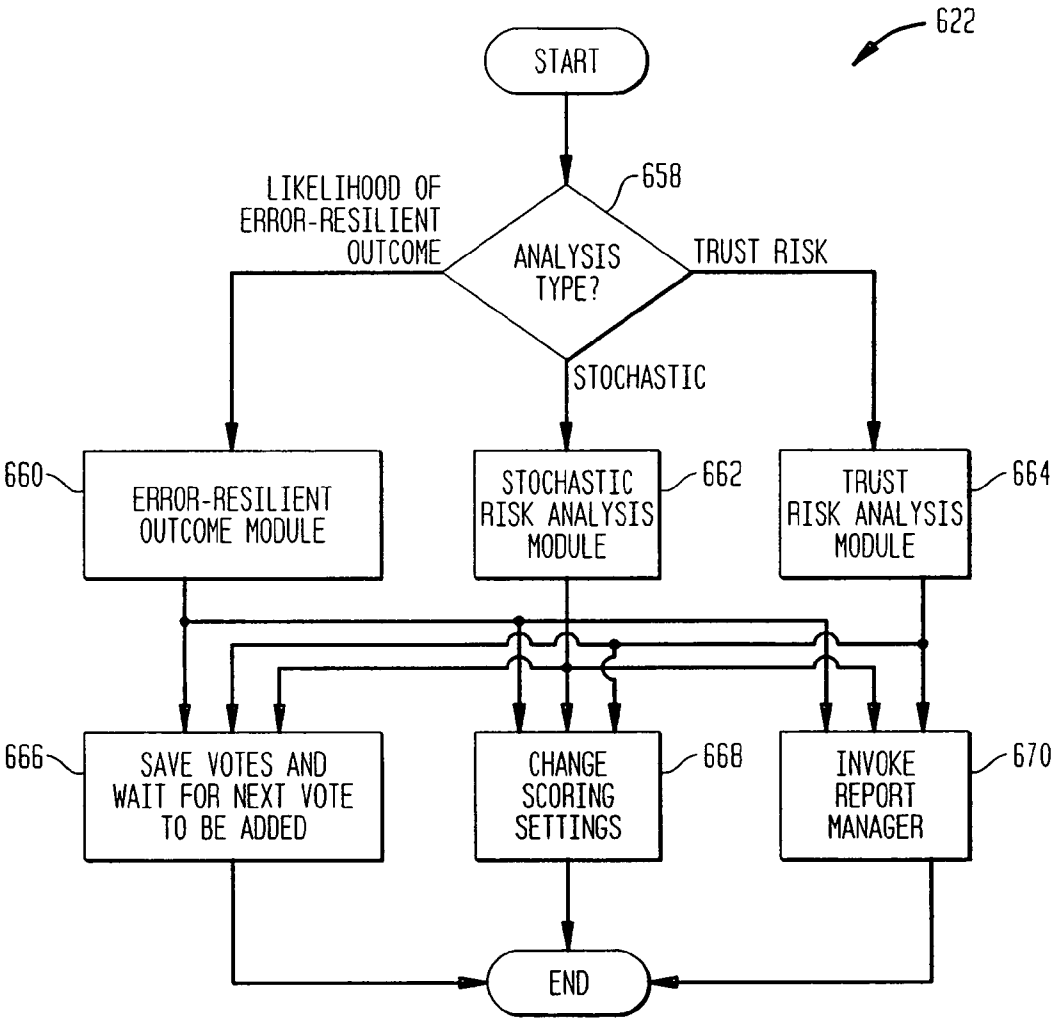

622
START
658
ANALYSIS TYPE?
LIKELIHOOD OF ERROR-RESILIENT OUTCOME
TRUST RISK
STOCHASTIC
660
ERROR-RESILIENT OUTCOME MODULE
662
STOCHASTIC RISK ANALYSIS MODULE
664
TRUST RISK ANALYSIS MODULE
666
SAVE VOTES AND WAIT FOR NEXT VOTE TO BE ADDED
668
CHANGE SCORING SETTINGS
670
INVOKE REPORT MANAGER
END

FIG. 5I

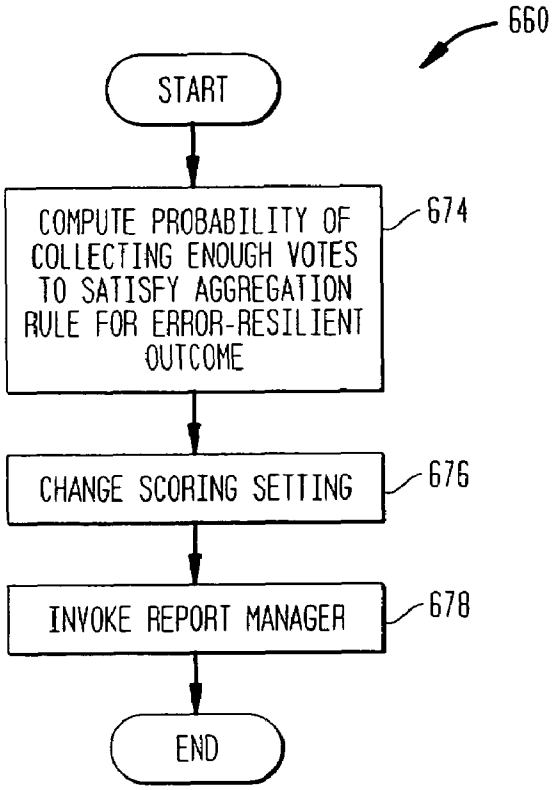

660
START
COMPUTE PROBABILITY OF COLLECTING ENOUGH VOTES TO SATISFY AGGREGATION RULE FOR ERROR-RESILIENT OUTCOME
674
CHANGE SCORING SETTING
676
INVOKE REPORT MANAGER
678
END

FIG. 5J

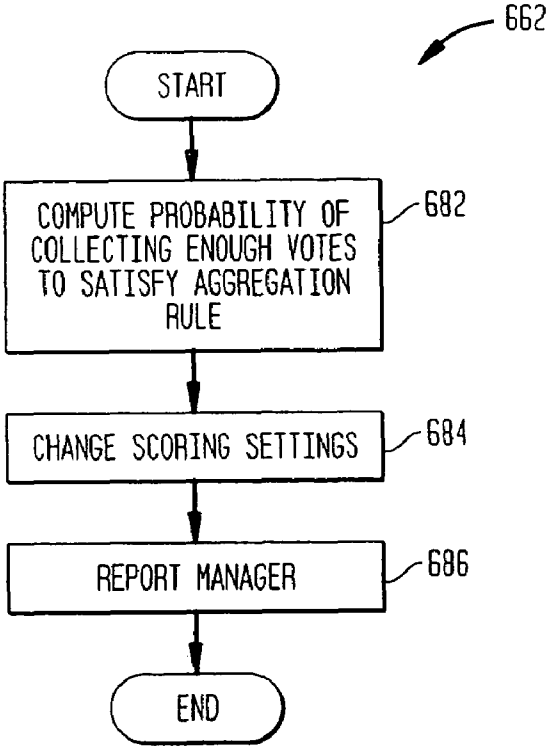
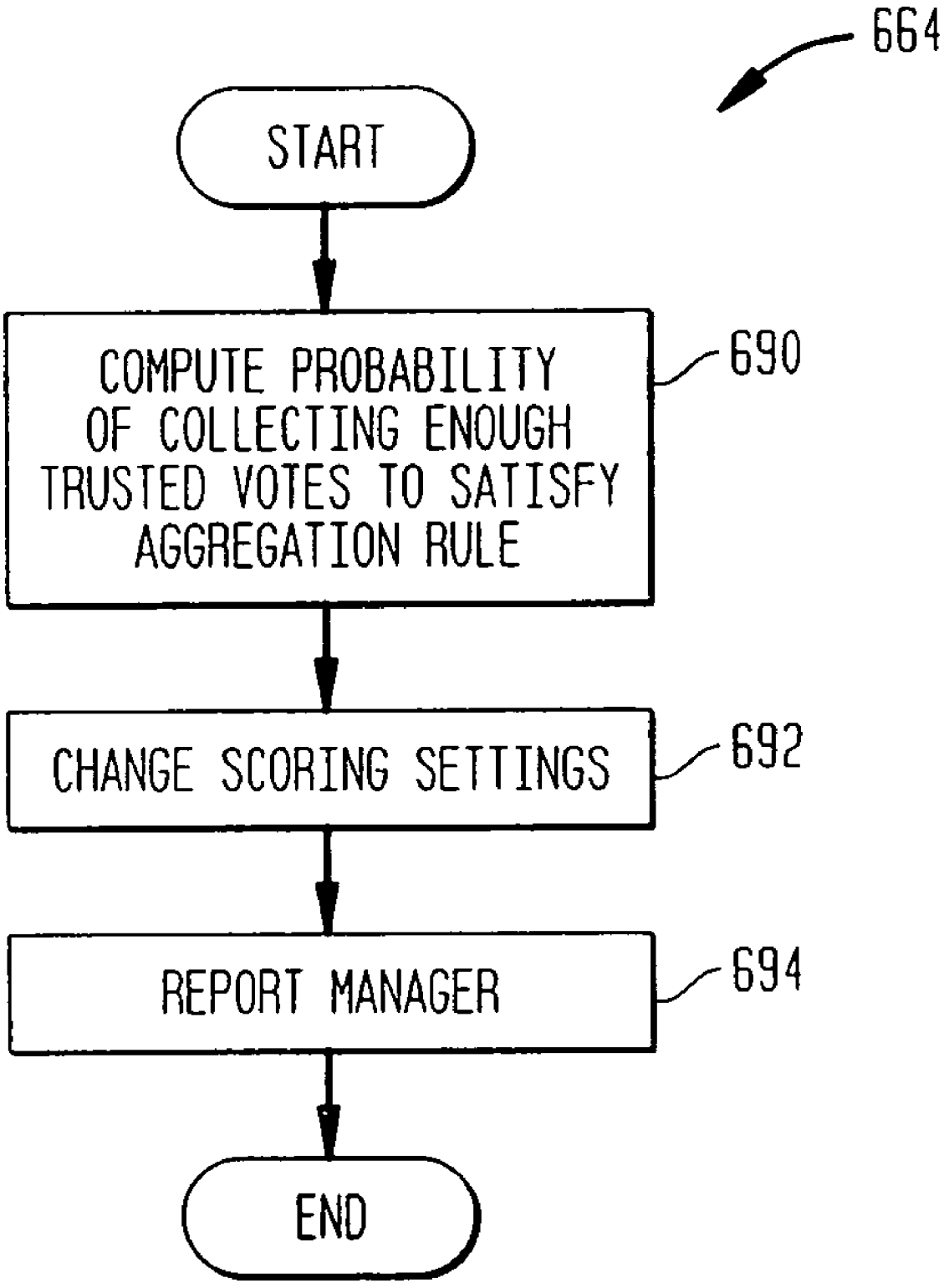

662
START
COMPUTE PROBABILITY OF COLLECTING ENOUGH VOTES TO SATISFY AGGREGATION RULE
682
CHANGE SCORING SETTINGS
684
REPORT MANAGER
686
END

FIG. 5K


664
START
COMPUTE PROBABILITY OF COLLECTING ENOUGH TRUSTED VOTES TO SATISFY AGGREGATION RULE
690
CHANGE SCORING SETTINGS
692
REPORT MANAGER
694
END