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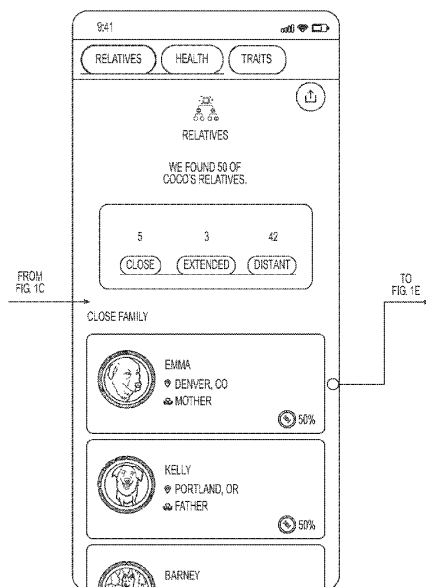


FIG. 1D

(57) Abstract: A computer-implemented method for using companion pet DNA information to predict a familial relationship of a companion pet, the method comprising receiving companion pet DNA information, the companion pet DNA information including at least one DNA sequence, sending the at least one DNA sequence to a database, wherein upon receiving the at least one DNA sequence, the database searches for and outputs at least one local DNA fragment pattern that includes at least one matching chromosome segment corresponding to at least one matching companion pet, analyzing the at least one local DNA fragment pattern to determine at least one predicted familial relationship between the companion pet and the at least one matching companion pet, and based on the analyzing, outputting the at least one predicted familial relationship.

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