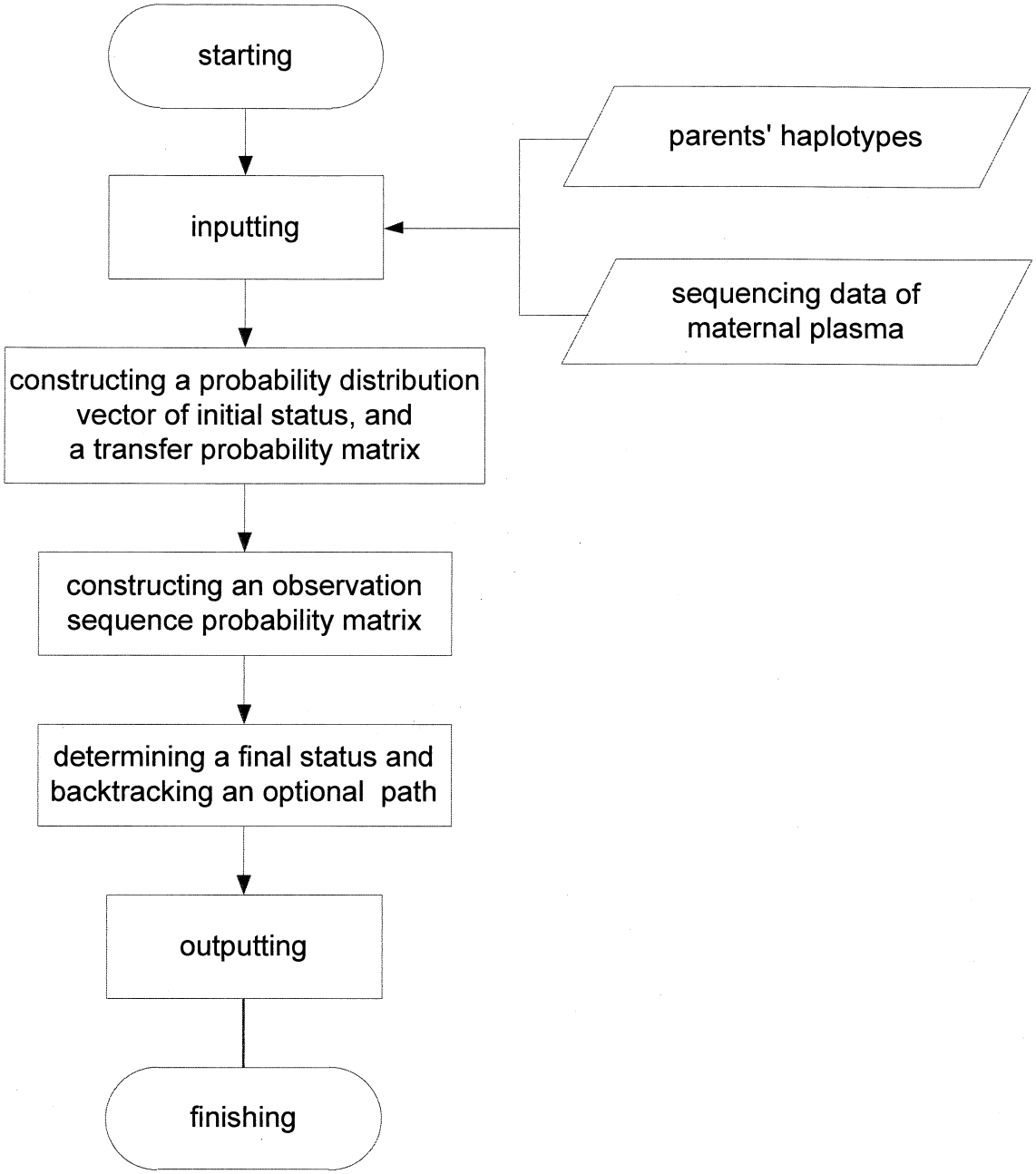

starting
parents' haplotypes
inputting
sequencing data of maternal plasma
constructing a probability distribution vector of initial status, and a transfer probability matrix
constructing an observation sequence probability matrix
determining a final status and backtracking an optional path
outputting
finishing

Fig.1

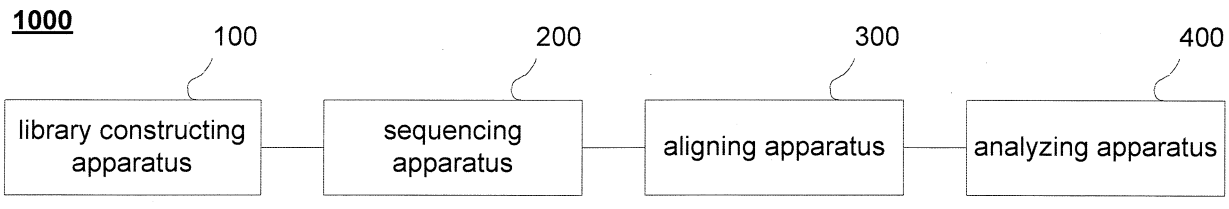

1000
100
200
300
400
library constructing apparatus
sequencing apparatus
aligning apparatus
analyzing apparatus

Fig.2