FIGURE 1

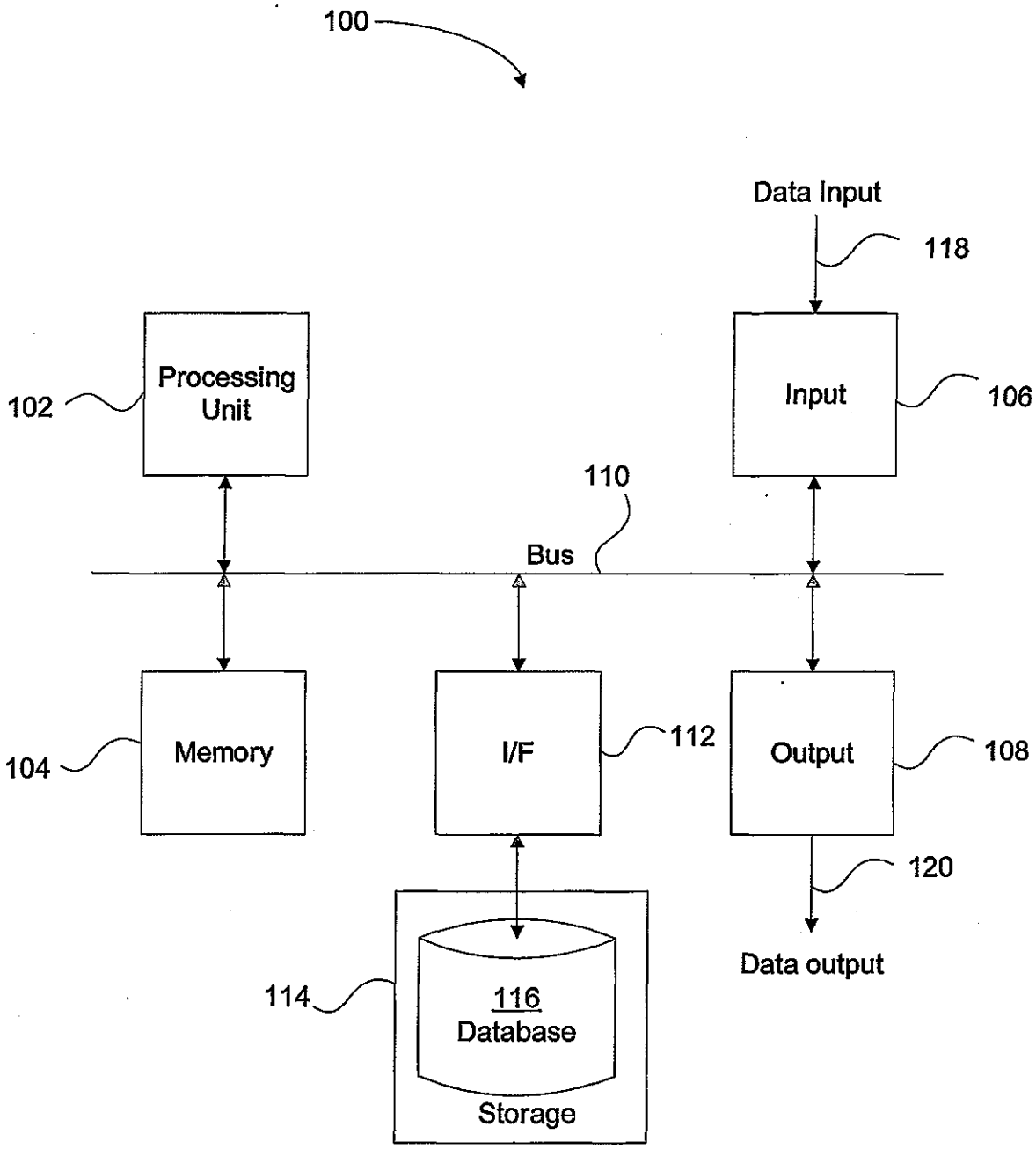

100
Data Input
118
Processing Unit
102
Input
106
110
Bus
Memory
104
I/F
112
Output
108
120
Data output
114
116
Database
Storage

FIGURE 2

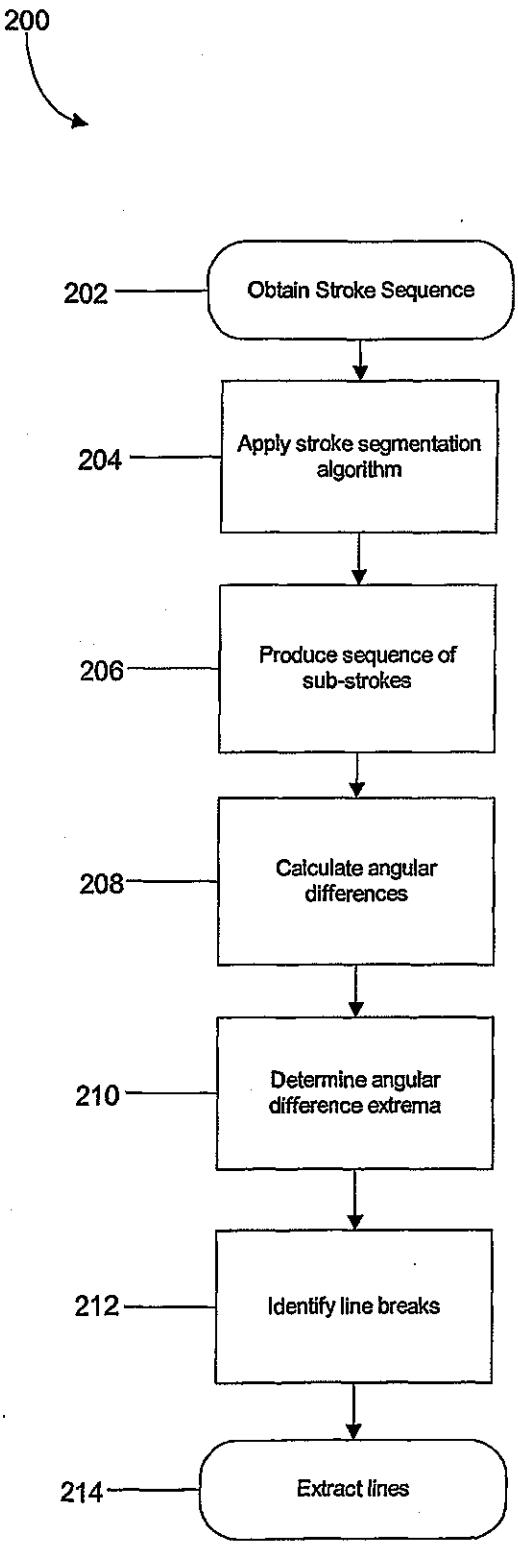

200
202
Obtain Stroke Sequence
204
Apply stroke segmentation algorithm
206
Produce sequence of sub-strokes
208
Calculate angular differences
210
Determine angular difference extrema
212
Identify line breaks
214
Extract lines

FIGURE 3

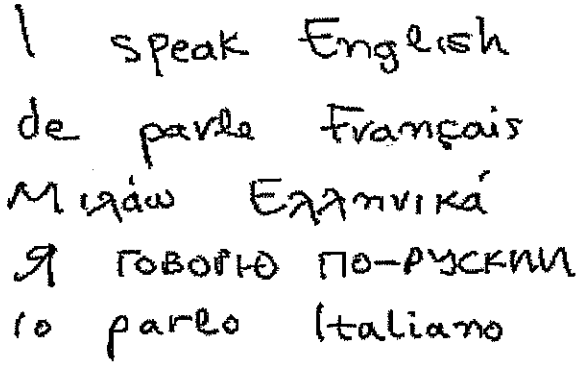


FIGURE 4

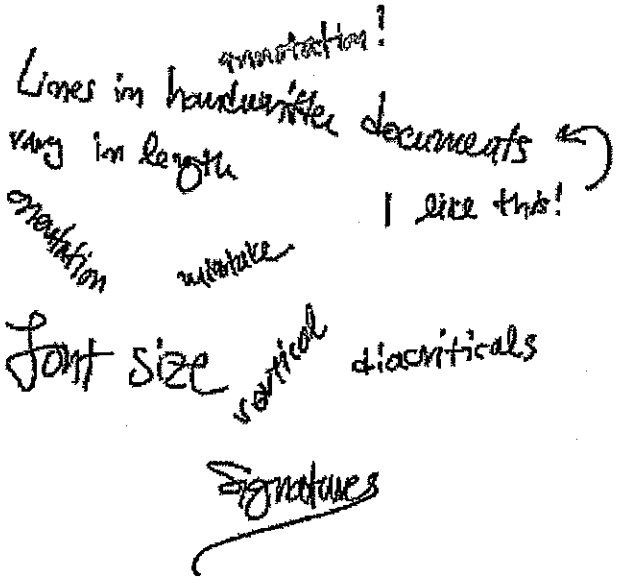


FIGURE 5

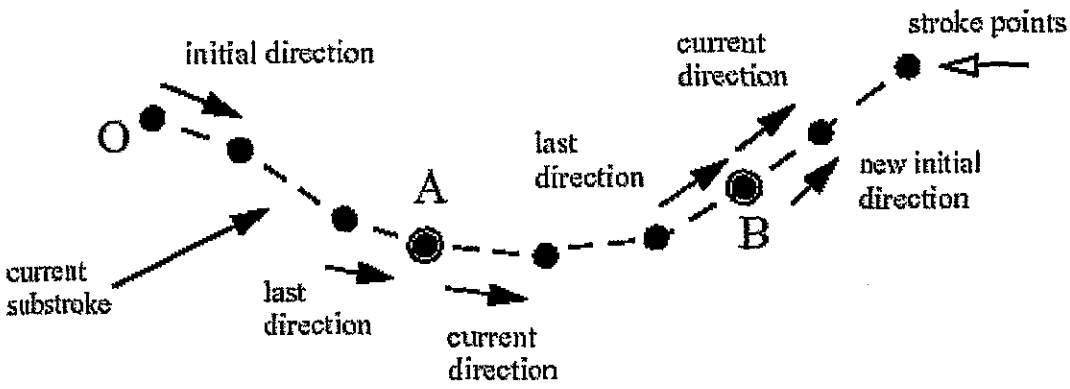


FIGURE 6

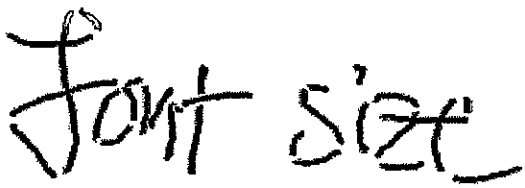


FIGURE 7

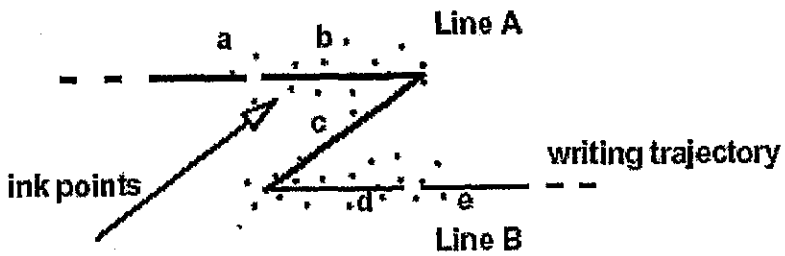


FIGURE 8

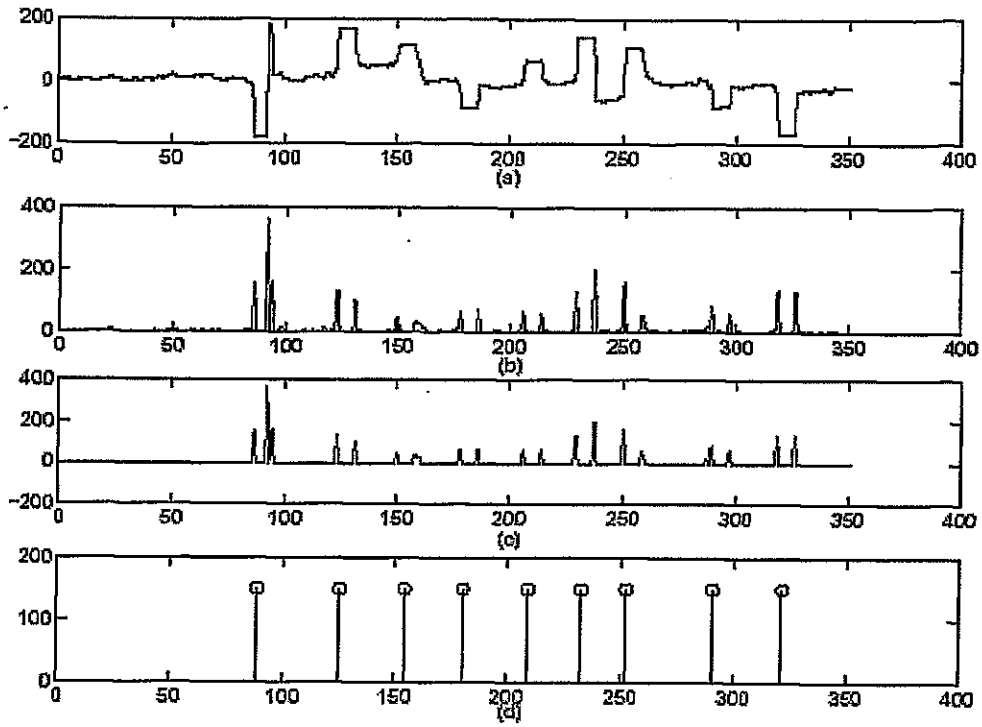


FIGURE 9

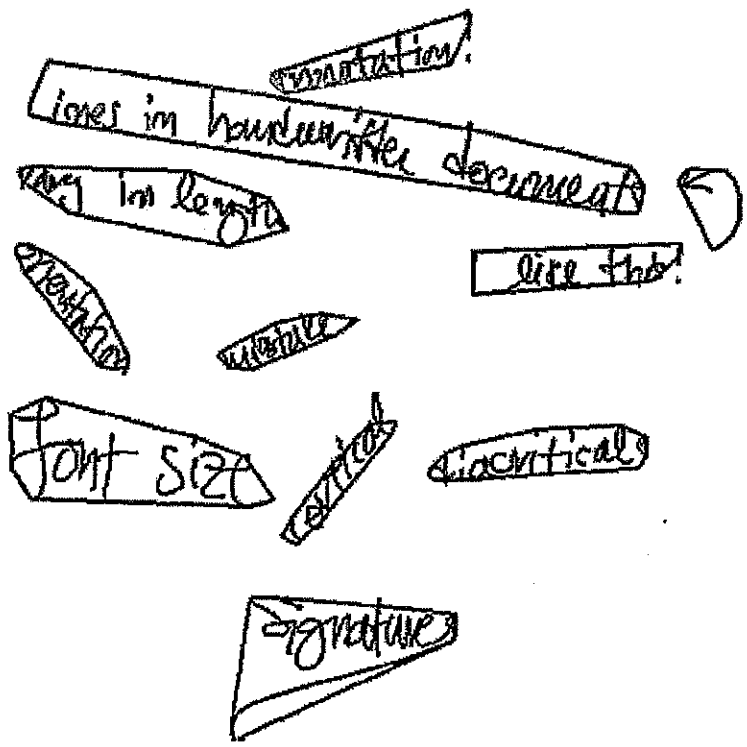


FIGURE 10

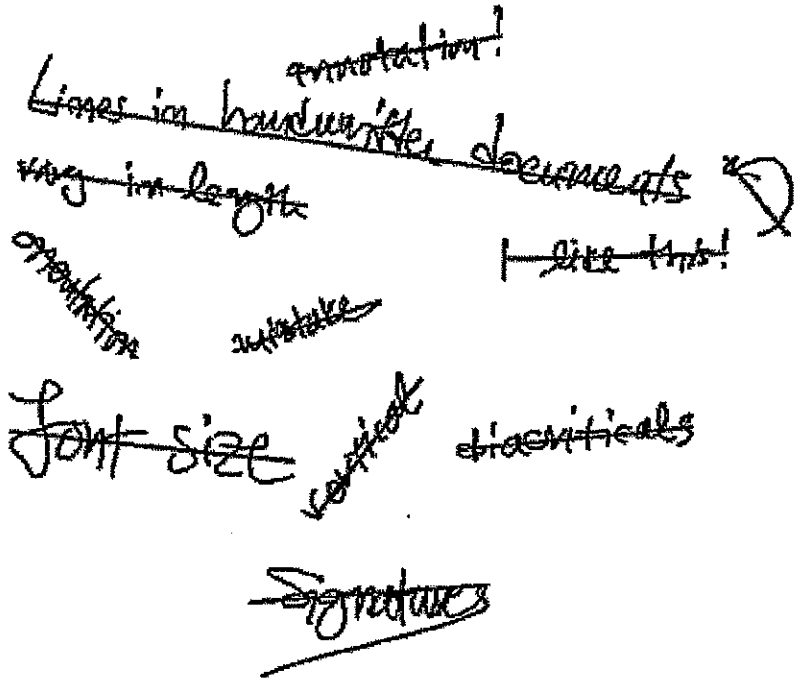


FIGURE 11

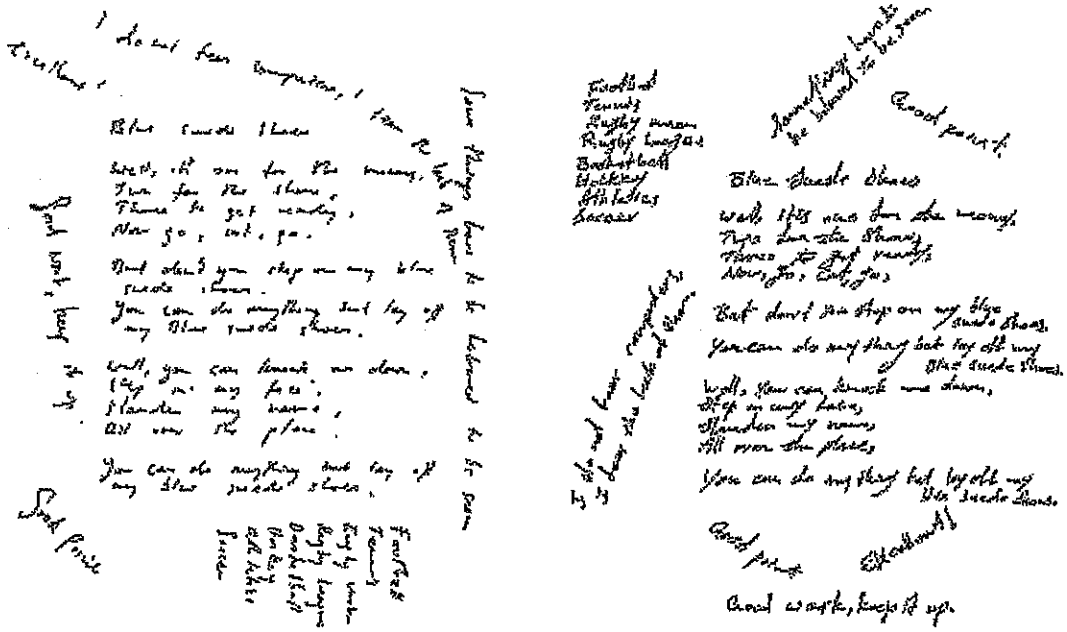


FIGURE 12

No one would have believed in the last years of the 19th century that this world was being watched keenly and closely by intelligences greater than man's and yet as mortal as his own; that as men busied themselves about their various concerns they were scrutinized and studied, perhaps almost as a man with a microscope might scrutinize the transient creatures that swarm and multiply in a drop of water. With infinite complacency men went to and fro over this globe about their little affairs, serene in their assurance of their empire over matter. It is possible that the creatures that inhabit the microscope do the same. No one gave a thought to the older worlds of space as sources of human danger, or thought of them only to dismiss the idea of life upon them as impossible or improbable. It is curious to recall some of the mental habits of those departed days. At most terrestrial men fancied there might be other men on Mars, perhaps inferior to themselves and ready to welcome a missionary enterprise. Yet across the gulf of space, minds that are to our minds as ours are to those of the beasts that perish, intellects vast and cool and unsympathetic, regarded this earth with envious eyes, and slowly and surely drew their plans against us.

That night another invisible missile started on its way to earth from Mars, just a second or so under twenty-four hours after the first one. I remember that I sat on THE TABLE that is the blackness, with patches of green and crimson swimming before my eyes. I watched I had a light to smoke by, little suspecting the meaning of the minute globule I had seen and all that it involved. Presently I lay down and fell asleep. Hundreds watched full moon, and then

gone up, and we lit the lantern and walked over to his house. Down below in the darkness were hundreds and hundreds of people sleeping in peace.

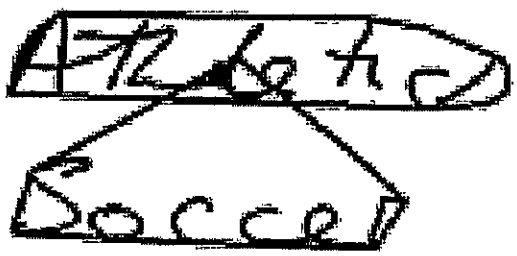
He was full of speculation that night about the condition of Mars, and scouted all the vulgar idea of its having inhabitants who were incapable of his idea.

was that meteorites might be falling in a heavy shower upon the planet or that a huge volcanic explosion was in progress. He pointed out to me how unlikely it was that organic evolution had taken the same direction on the two adjacent planets.

"The chances of anything coming from Mars are a million to one," he said.

Hundreds of observers saw the flash that night and the night after about midnight, and another flash the night after; and so for ten nights, a flash each night.

FIGURE 13



Gregg the

FIGURE 14

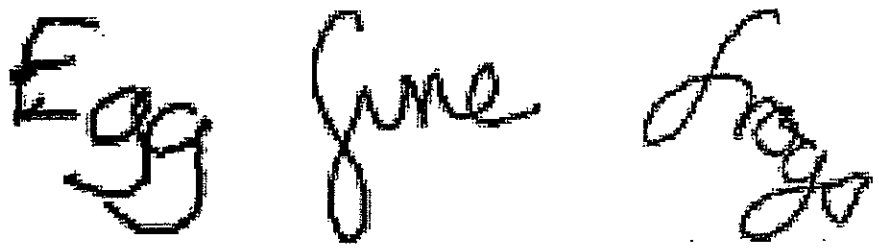


FIGURE 15

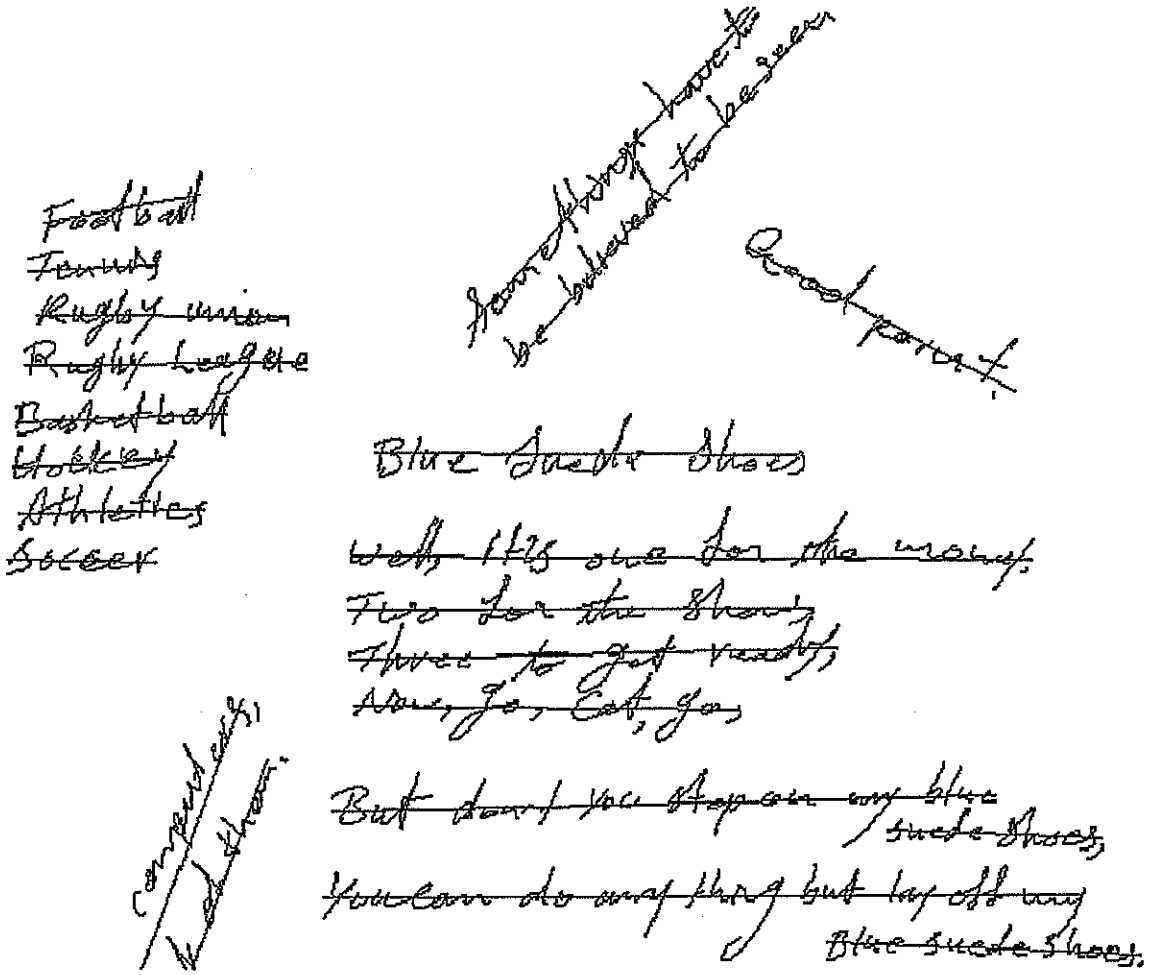


FIGURE 16

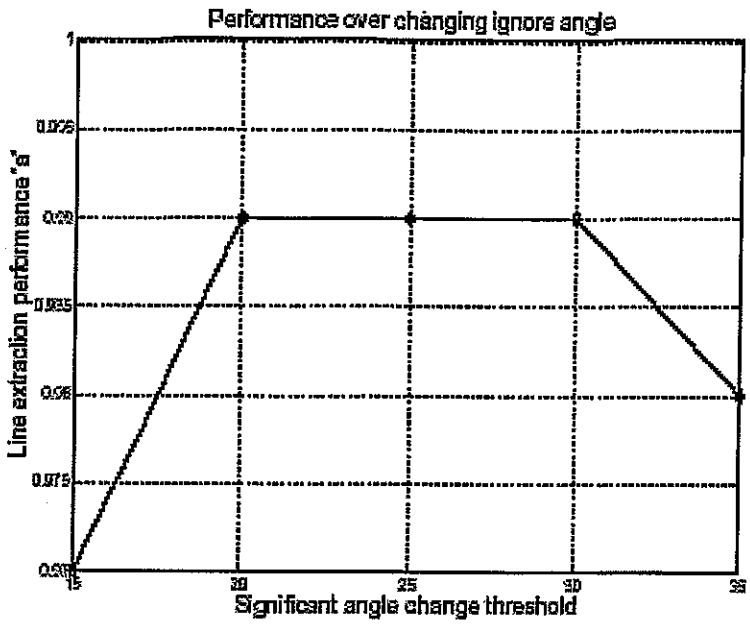


FIGURE 17

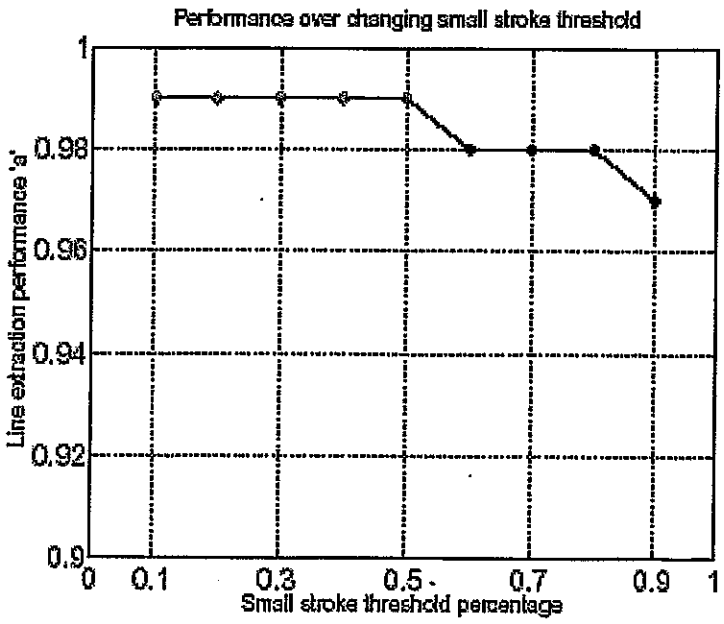


FIGURE 18

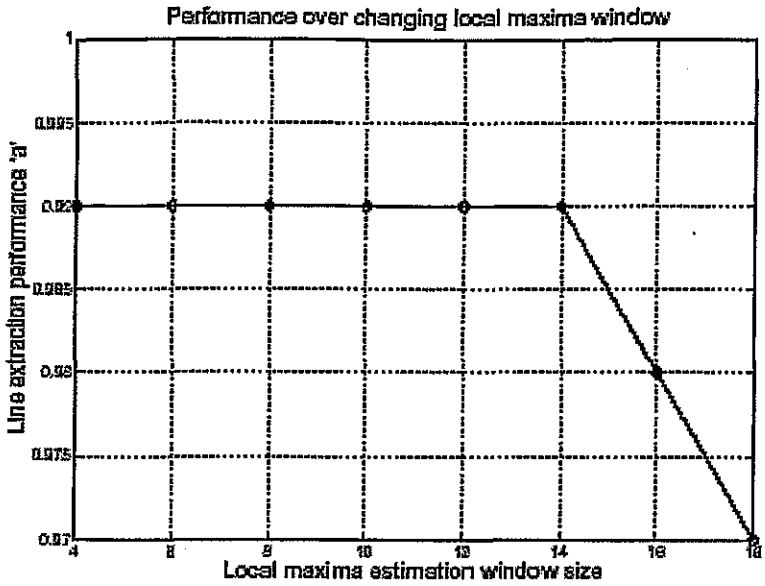


FIGURE 19

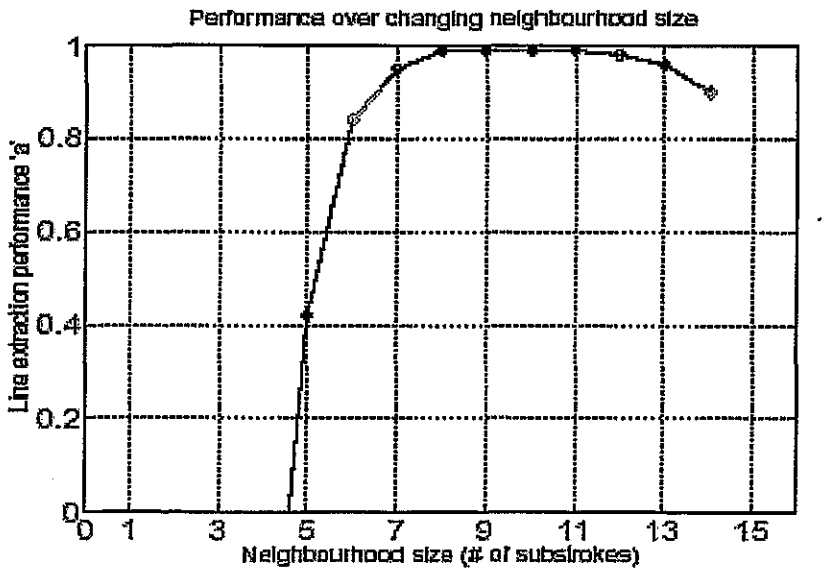


FIGURE 20

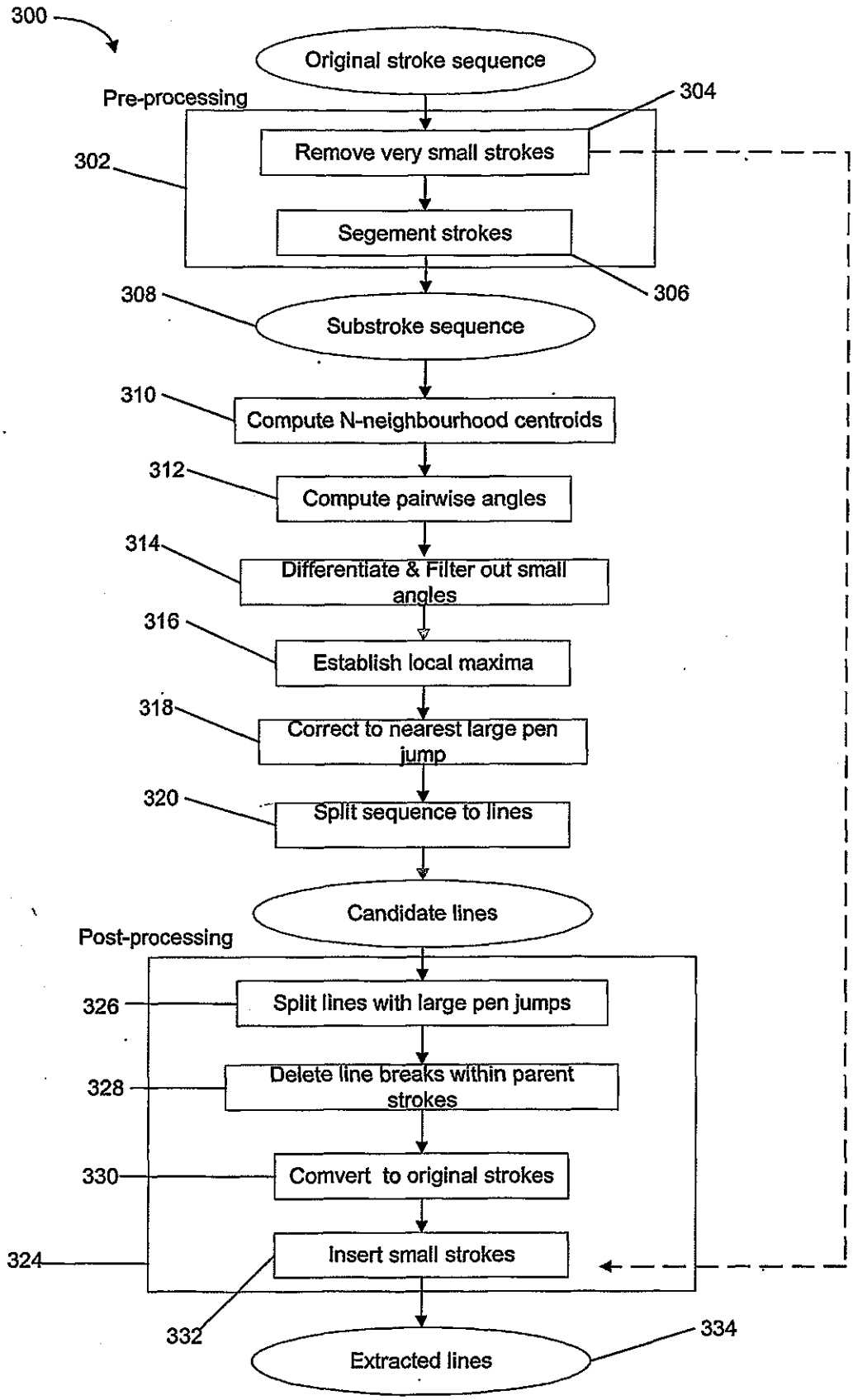
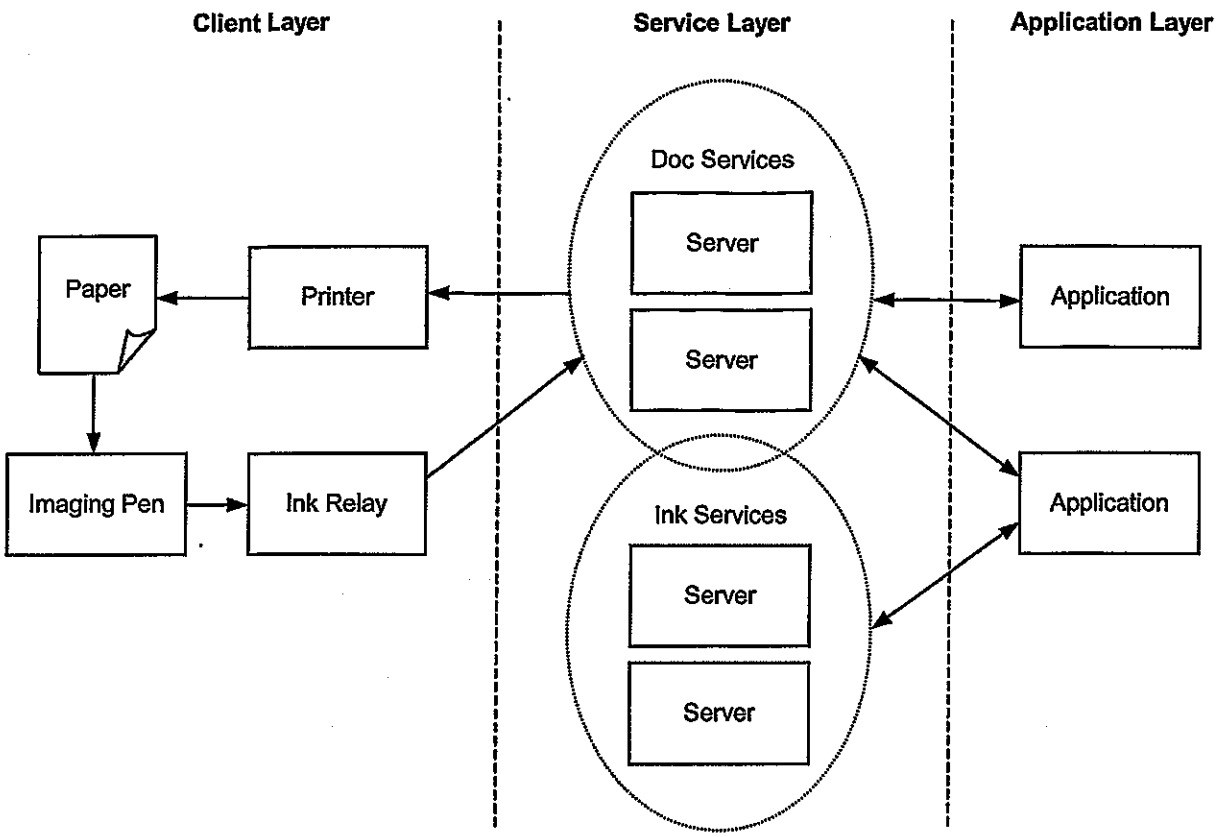

300
Original stroke sequence
Pre-processing
304
Remove very small strokes
302
Segement strokes
306
308
Substroke sequence
310
Compute N-neighbourhood centroids
312
Compute pairwise angles
314
Differentiate & Filter out small angles
316
Establish local maxima
318
Correct to nearest large pen jump
320
Split sequence to lines
Candidate lines
Post-processing
326
Split lines with large pen jumps
328
Delete line breaks within parent strokes
330
Comvert to original strokes
324
Insert small strokes
332
334
Extracted lines

FIGURE 21


Client Layer
Service Layer
Application Layer
Doc Services
Server
Server
Paper
Printer
Application
Imaging Pen
Ink Relay
Application
Ink Services
Server
Server