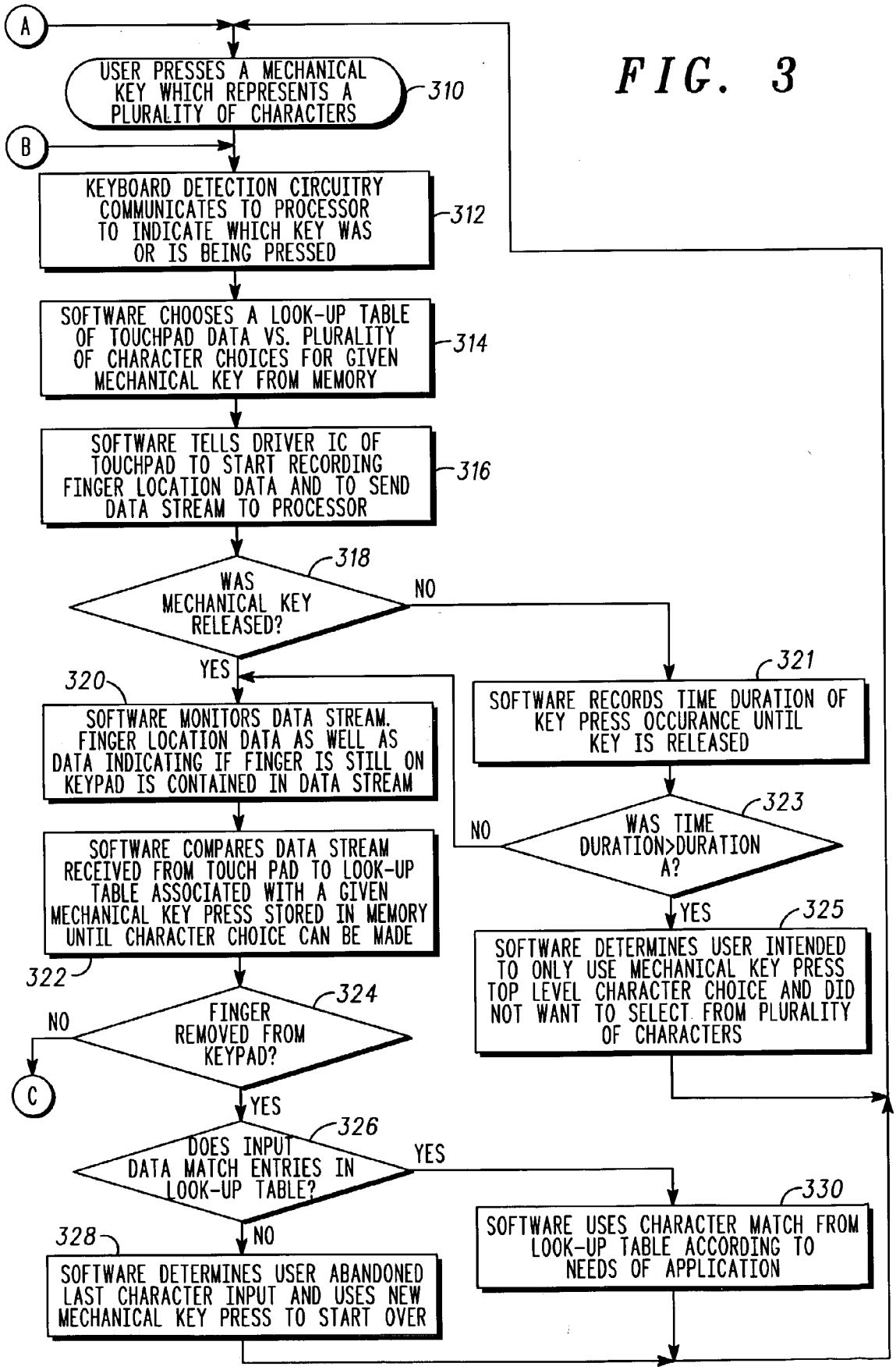
A
B
C
USER PRESSES A MECHANICAL KEY WHICH REPRESENTS A PLURALITY OF CHARACTERS
310
KEYBOARD DETECTION CIRCUITRY COMMUNICATES TO PROCESSOR TO INDICATE WHICH KEY WAS OR IS BEING PRESSED
312
SOFTWARE CHOOSES A LOOK-UP TABLE OF TOUCHPAD DATA VS. PLURALITY OF CHARACTER CHOICES FOR GIVEN MECHANICAL KEY FROM MEMORY
314
SOFTWARE TELLS DRIVER IC OF TOUCHPAD TO START RECORDING FINGER LOCATION DATA AND TO SEND DATA STREAM TO PROCESSOR
316
WAS MECHANICAL KEY RELEASED?
318
NO
YES
SOFTWARE MONITORS DATA STREAM. FINGER LOCATION DATA AS WELL AS DATA INDICATING IF FINGER IS STILL ON KEYPAD IS CONTAINED IN DATA STREAM
320
SOFTWARE COMPARES DATA STREAM RECEIVED FROM TOUCH PAD TO LOOK-UP TABLE ASSOCIATED WITH A GIVEN MECHANICAL KEY PRESS STORED IN MEMORY UNTIL CHARACTER CHOICE CAN BE MADE
322
FINGER REMOVED FROM KEYPAD?
324
NO
YES
DOES INPUT DATA MATCH ENTRIES IN LOOK-UP TABLE?
326
YES
NO
SOFTWARE DETERMINES USER ABANDONED LAST CHARACTER INPUT AND USES NEW MECHANICAL KEY PRESS TO START OVER
328
SOFTWARE USES CHARACTER MATCH FROM LOOK-UP TABLE ACCORDING TO NEEDS OF APPLICATION
330
SOFTWARE RECORDS TIME DURATION OF KEY PRESS OCCURANCE UNTIL KEY IS RELEASED
321
WAS TIME DURATION>DURATION A?
323
NO
YES
SOFTWARE DETERMINES USER INTENDED TO ONLY USE MECHANICAL KEY PRESS TOP LEVEL CHARACTER CHOICE AND DID NOT WANT TO SELECT FROM PLURALITY OF CHARACTERS
325

FIG. 3