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Yoshimura et al.

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(54) **SHEET FEEDING APPARATUS WITH
ULTRASONIC SENSOR FOR DETECTING
MULTIPLE FEED OF PAPERS**

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(57) **ABSTRACT**

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(52) **U.S. Cl.** 271/263; 271/262

(58) **Field of Classification Search** 271/262,
271/263, 258.04, 265.04

See application file for complete search history.

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20 Claims, 10 Drawing Sheets

Disclosed is a sheet feeding apparatus comprises: a multiple feed detecting section; a temperature detecting section; and a control section. The multiple feed detecting section has an ultrasonic transmitter and an ultrasonic receiver arranged on opposite sides of the conveyance path for conveying the sheets, and detects the feed of multiple sheets by, transmitting an ultrasonic wave from the ultrasonic transmitter to the ultrasonic receiver through at least one sheet traveling along the conveyance path, and comparing the ultrasonic wave received by the ultrasonic receiver with a reference level. The temperature detecting section detects a temperature of the apparatus, and the control section adjusts a detecting condition of the multiple feed detecting section based on the detected temperature.

EXAMPLE OF THE LAYOUT POSITION OF ULTRASONIC SENSOR

