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Ullmann et al.

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(54) **RUBBER BAND GRAPHICAL USER INTERFACE CONTROL**

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(51) **Int. Cl.**⁷ **G09G 5/00**

(52) **U.S. Cl.** **345/786; 345/787**

(58) **Field of Search** 345/684, 688,
345/784–787, 830, 973

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Primary Examiner—Kristine Kincaid

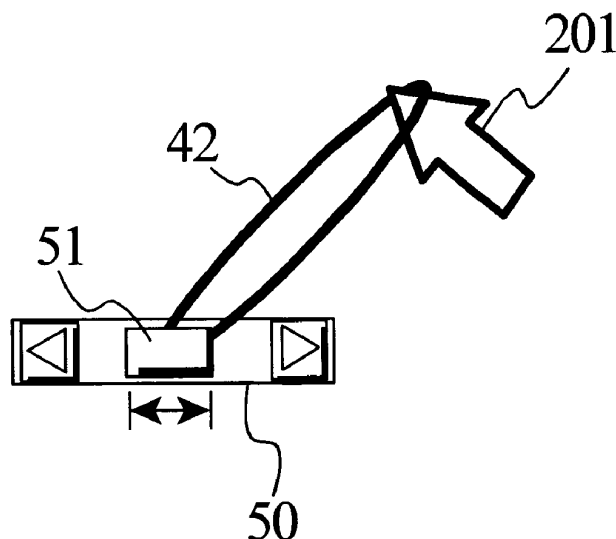
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(57) **ABSTRACT**

A rubber band variable-rate GUI control for use in conjunction with GUI controls, such as sliders, scroll bars, virtual joysticks, and oppositional buttons (up/down, left/right, plus/minus, next/previous, etc.). A user may place a pointer or cursor over a GUI control, select (e.g. click and hold a mouse button) and drag away from the control, and a virtual rubber band extending between the pointer and the GUI control is displayed. The further the user moves or “pulls” the pointer from the GUI control, the thinner and more elliptical the rubber band is displayed, and the faster the selections scrolls or the control operation is repeated. When the user moves the pointer closer to GUI control, the rubber band is displayed fatter and more circular in shape, and the scrolling or control operation repetition slows.

30 Claims, 6 Drawing Sheets



Prior Art

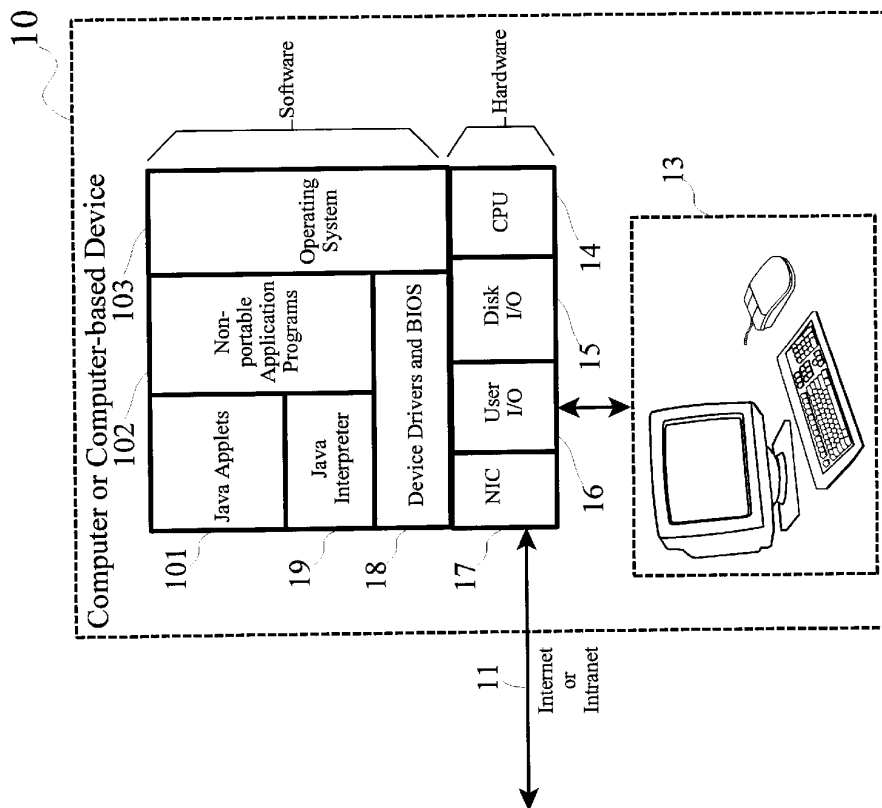
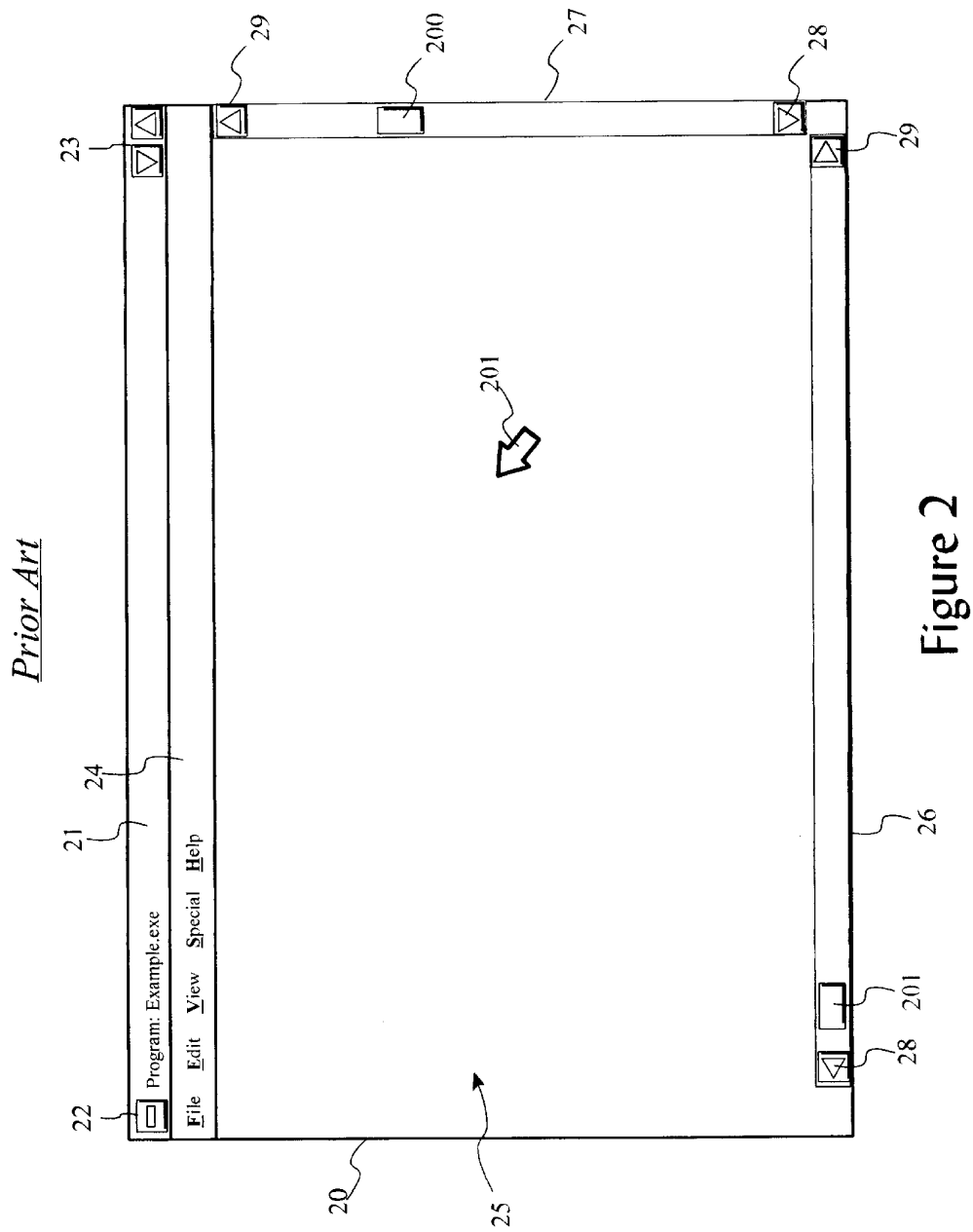


Figure 1



Prior Art

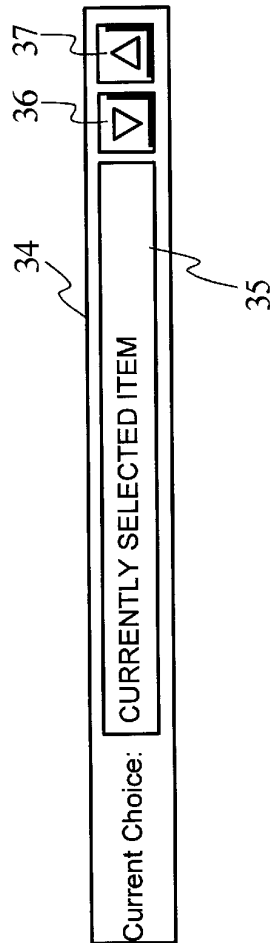


Figure 3b

Prior Art

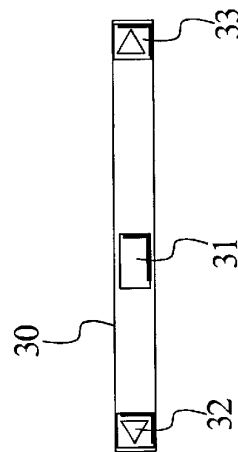


Figure 3a

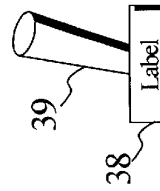


Figure 3c

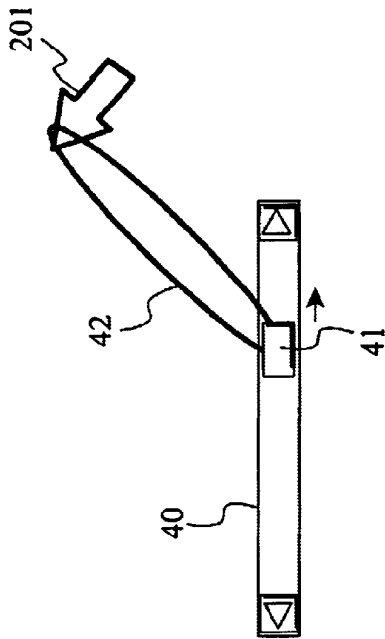


Figure 4b

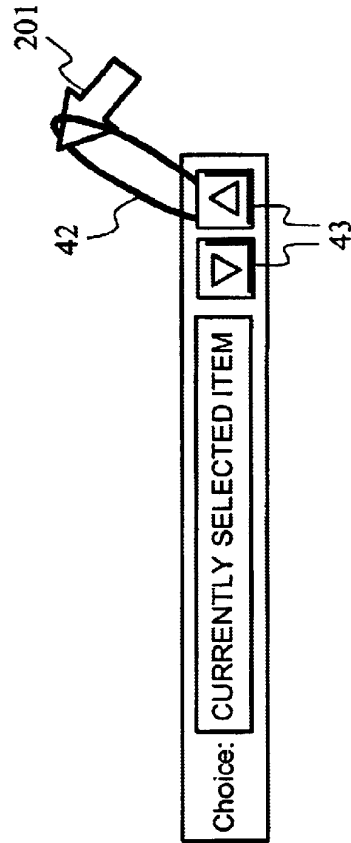


Figure 4d

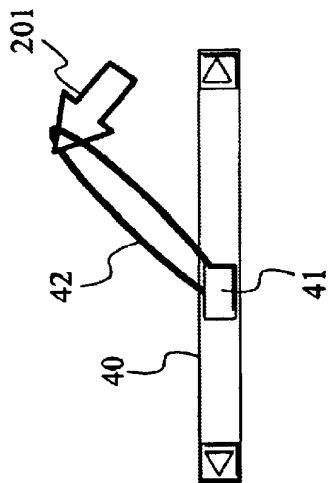


Figure 4a

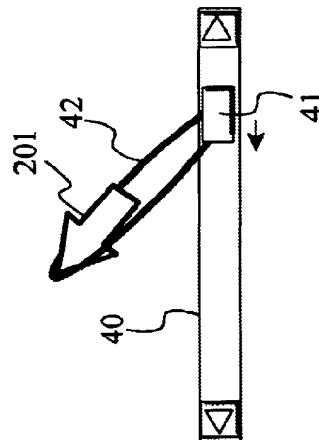


Figure 4c

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