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Rasmussen

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(45) **Date of Patent:** **Nov. 17, 2009**

(54) **COMBINED MAP SCALE AND MEASURING TOOL**

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(51) **Int. Cl.**

G01C 21/30 (2006.01)

(52) **U.S. Cl.** 701/212; 701/208; 340/995.14

(58) **Field of Classification Search** 701/200–213; 340/995.1–995.28

See application file for complete search history.

(57) **ABSTRACT**

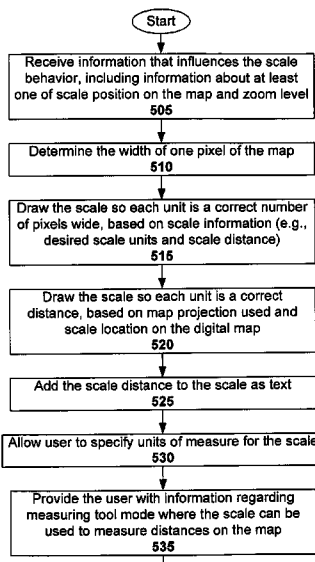
A combined map scale and measuring tool can be used in digital mapping systems. In the scale mode, the scale indicates the correct scale, for example, at the center of the map. It can be updated with every pan, zoom or resize operation the user performs, and can further update to compensate for map distortion caused by the map projection. The tool mode is entered once the user drags one or both of the scale endpoints onto the map. The distance between two endpoints of the tool can be displayed. A new point can be added each time the user drags a line between existing endpoints of the tool. Info windows can be opened that include relevant information about the endpoints (e.g., latitude/longitude, geo code), and provide option to convert the tool segments to driving directions. A drag and drop location marker is also provided.

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65 Claims, 9 Drawing Sheets



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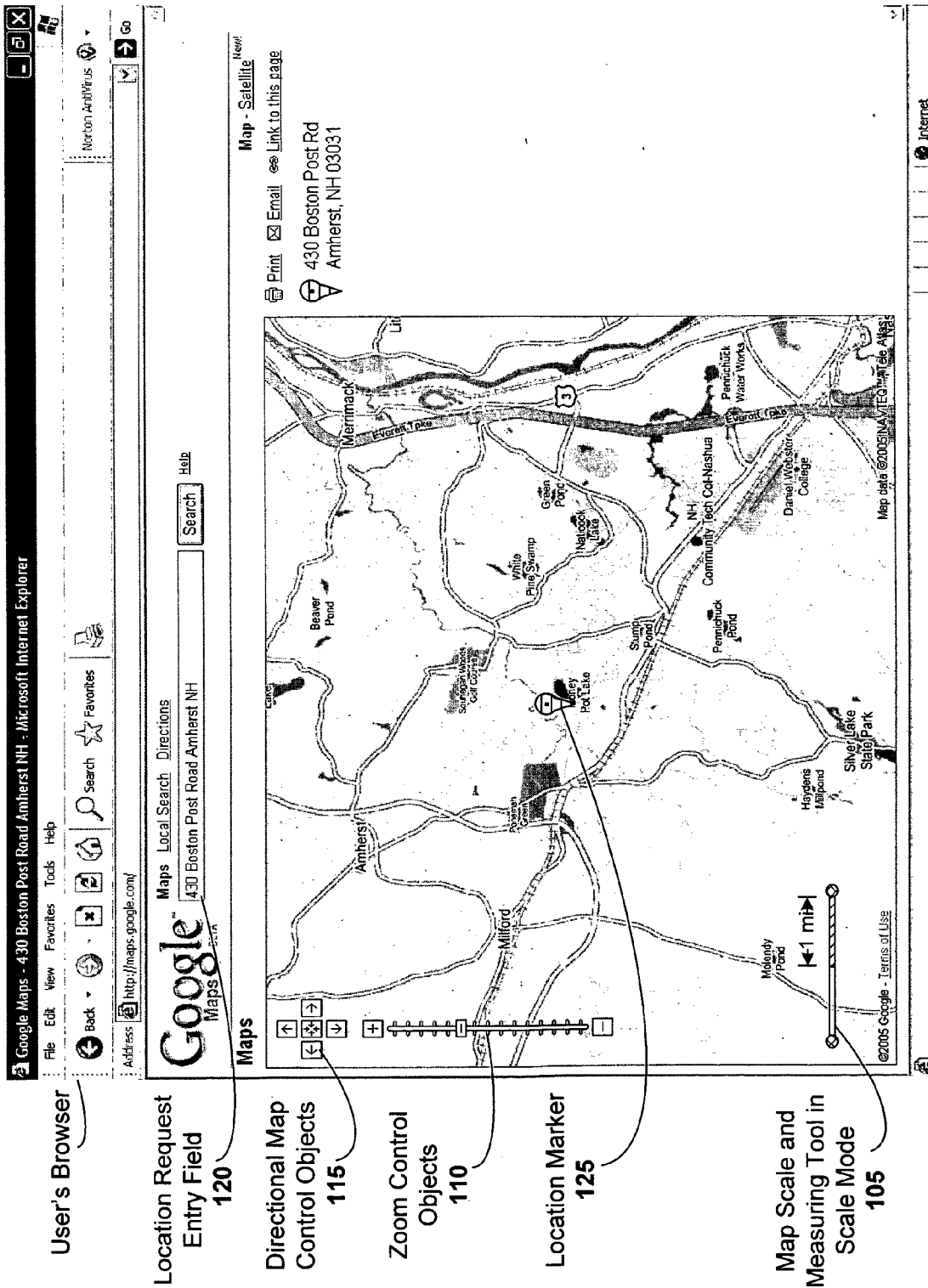
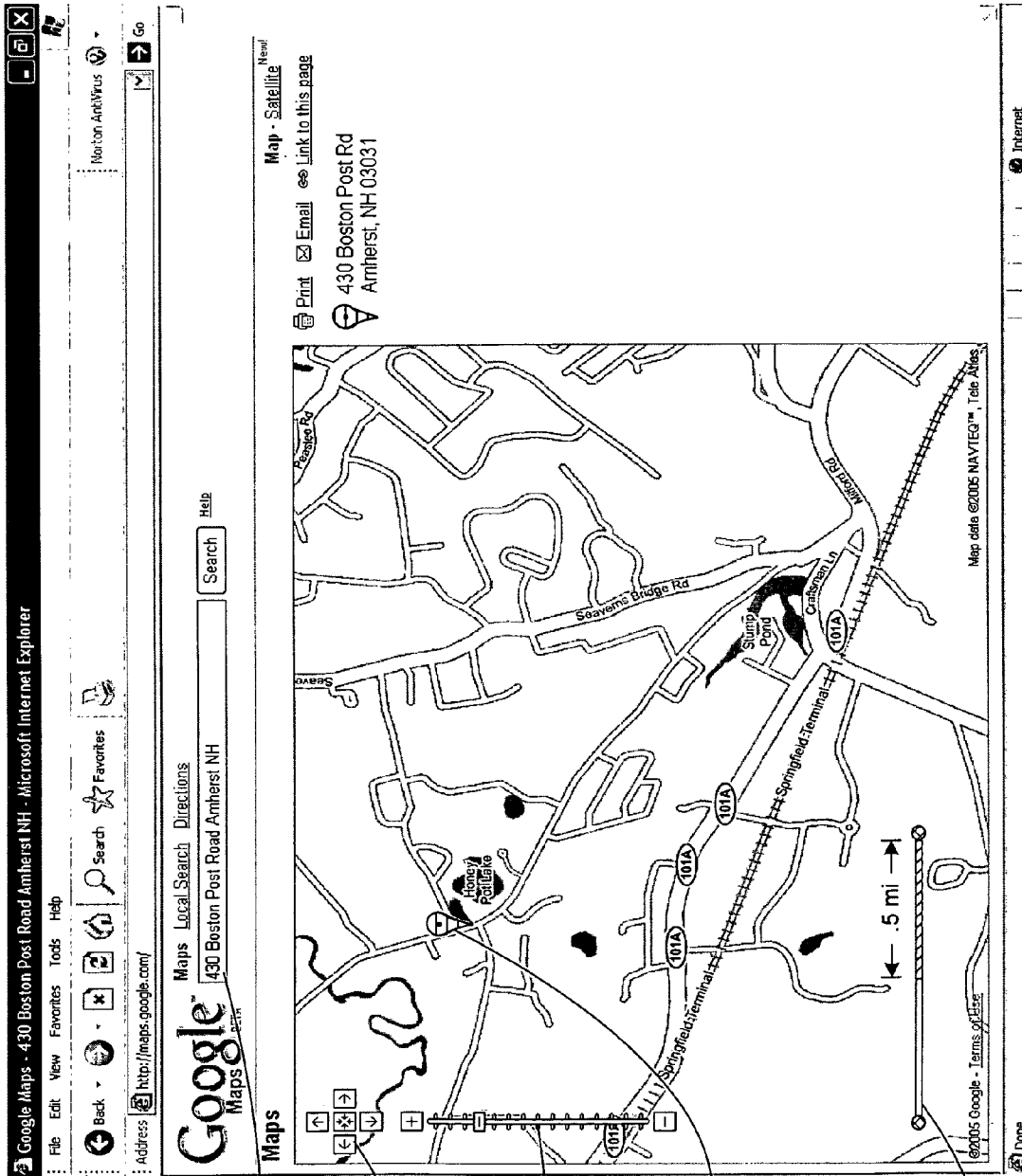


Fig. 1a



User's Browser

Location Request Entry Field 120

Directional Map Control Objects 115

Zoom Control Objects 110

Location Marker 125

Map Scale and Measuring Tool in Scale Mode 105

Fig. 1b

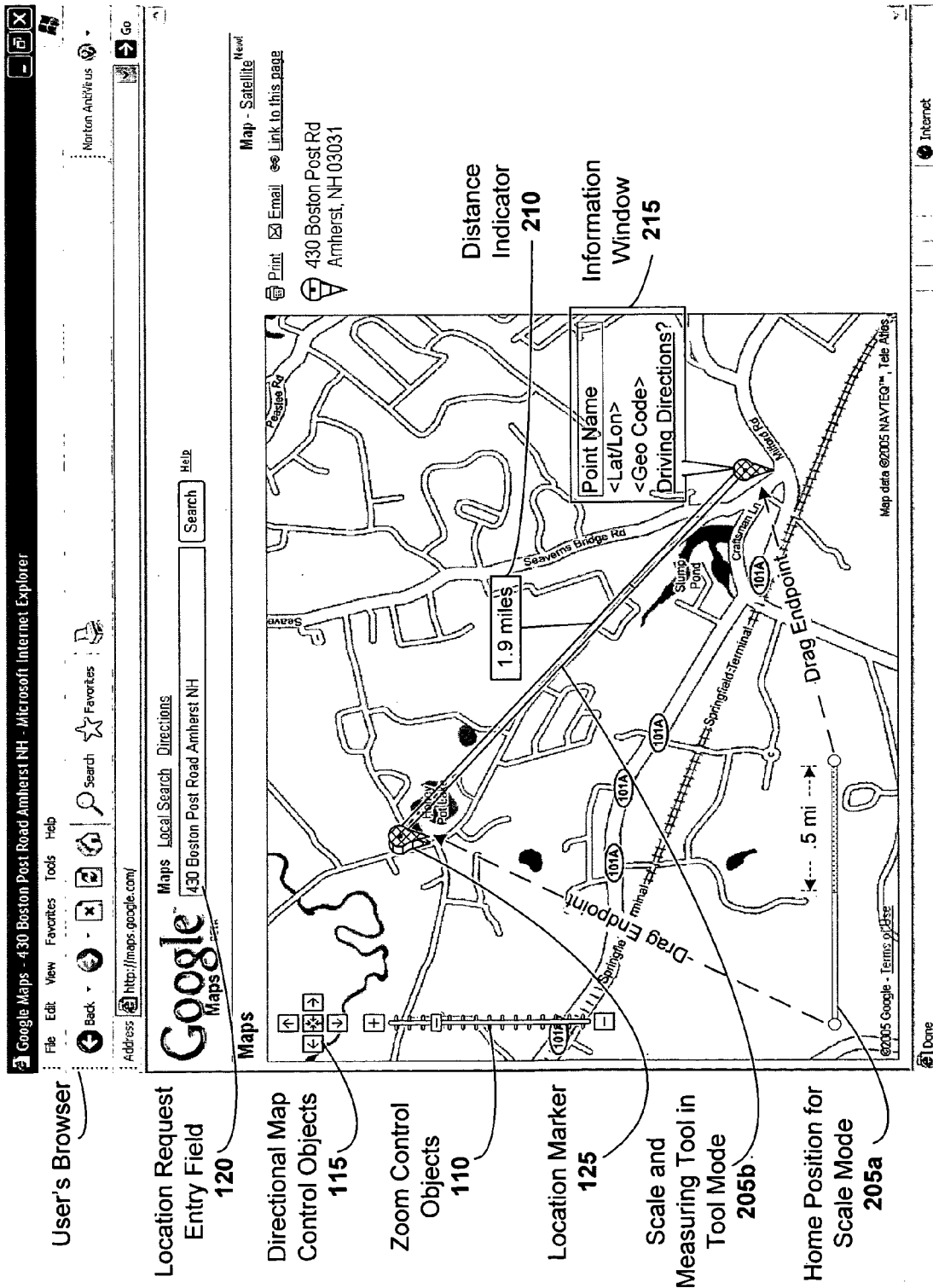


Fig. 2

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