



(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2002/0167495 A1**

**Quinn et al.**

(43) **Pub. Date: Nov. 14, 2002**

(54) **COLLAPSIBLE DATA ENTRY PANEL**

(57)

**ABSTRACT**

(75) Inventors: **Brian P. Quinn**, Pleasant Prairie, WI (US); **Gregory C. Borucki**, Hinsdale, IL (US); **Marino Cecchi**, Lake Geneva, WI (US)

Correspondence Address:  
**GREER, BURNS & CRAIN**  
**300 S WACKER DR**  
**25TH FLOOR**  
**CHICAGO, IL 60606 (US)**

(73) Assignee: **Brian P. Quinn**

(21) Appl. No.: **09/853,201**

(22) Filed: **May 11, 2001**

**Publication Classification**

(51) **Int. Cl.<sup>7</sup> ..... G09G 5/00**

(52) **U.S. Cl. .... 345/173**

A collapsible data entry panel comprises, an upper layer of flexible sheet material having formed keys on its outer surface and conductive areas or contacts on its inner surface, a lower layer of flexible sheet material having conductive circuits or traces on its inner surface, and resilient, flexible frame around the peripheral margins of the sheet material layers that pulls the layers taut so that they are parallel to and spaced apart from one another. Depression of a formed key will cause a corresponding, underlying contact to connect with the conductive trace carried by the lower layer, and thereby complete a circuit representative of the depressed key. The data entry panel of the invention is collapsible to a surface area less than 1/2 of its extended configuration by twisting the respective ends of the panel in opposite directions, while applying a slight inward pressure. In its collapsed configuration, the panel can readily fit into a shirt pocket or purse. If the panel is subsequently released, it will automatically spring back to its original, extended configuration.

