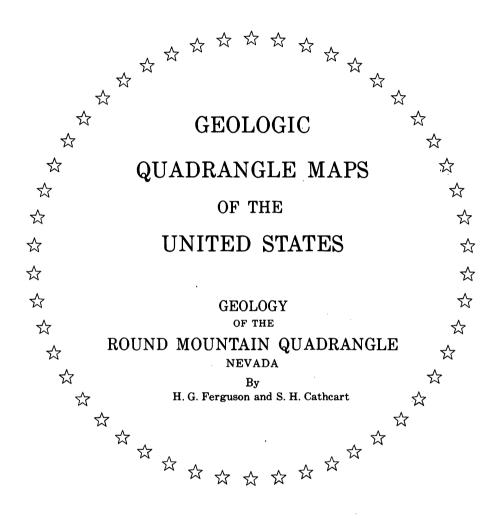
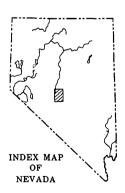
DEPARTMENT OF THE INTERIOR

UNITED STATES GEOLOGICAL SURVEY W. E. WRATHER, DIRECTOR





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GEOLOGIC MAP SYMBOLS

COMMONLY USED ON MAPS OF THE UNITED STATES GEOLOGICAL SURVEY (Special symbols are shown in explanation)

Strike and dip of beds - Ball indicates

Contact - Dashed where approximately

top of beds known from sedimenlocated; short dashed where inferred; dotted where concealed tary structures <u>→ 70</u> Inclined ⊕ Horizontal Contact - Showing dip; well exposed at . → Vertical → Overturned triangle Strike and dip of foliation Fault - Dashed where approximately _____ 20 Inclined ____ Vertical ____ Horizontal located; short dashed where inferred; dotted where concealed Strike and dip of cleavage Inclined - Vertical Horizontal Fault, showing dip - Ball and bar on downthrown side Bearing and plunge of lineation Normal fault - Hachured on downthrown side Strike and dip of joints Fault - Showing relative horizontal __40 Inclined __ Vertical + Horizontal movement Note: planar symbols (strike and dip of beds, foliation or schistosity, and cleavage) may be Thrust fault - Sawteeth on upper plate combined with linear symbols to record data observed at same locality by superimposed Anticline - Showing direction of plunge; symbols at point of observation. Coexisting dashed where approximately located; planar symbols are shown intersecting at point dotted where concealed of observation. Asymmetric anticline - Short arrow indicates steeper limb Shafts Overturned anticline - Showing direction Vertical Inclined of dip of limbs Adit, tunnel, or slope Syncline - Showing direction of plunge; dashed where approximately located; Accessible > Inaccessible dotted where concealed Prospect Asymmetric syncline - Short arrow indicates steeper limb Ouarry Active ☆ Abandoned ... Overturned syncline Showing direction of dip of limbs Gravel pit × Active ★ Abandoned Monocline - Showing direction of plunge of axis Oil well Drilling ♦ Shut-in Dry hole Minor anticline - Showing plunge of axis abandoned Gas Minor syncline - Showing plunge of axis Show of oil Oil