STRUCTURE AND ECONOMIC GEOLOGY

STATE OF ILLINOIS
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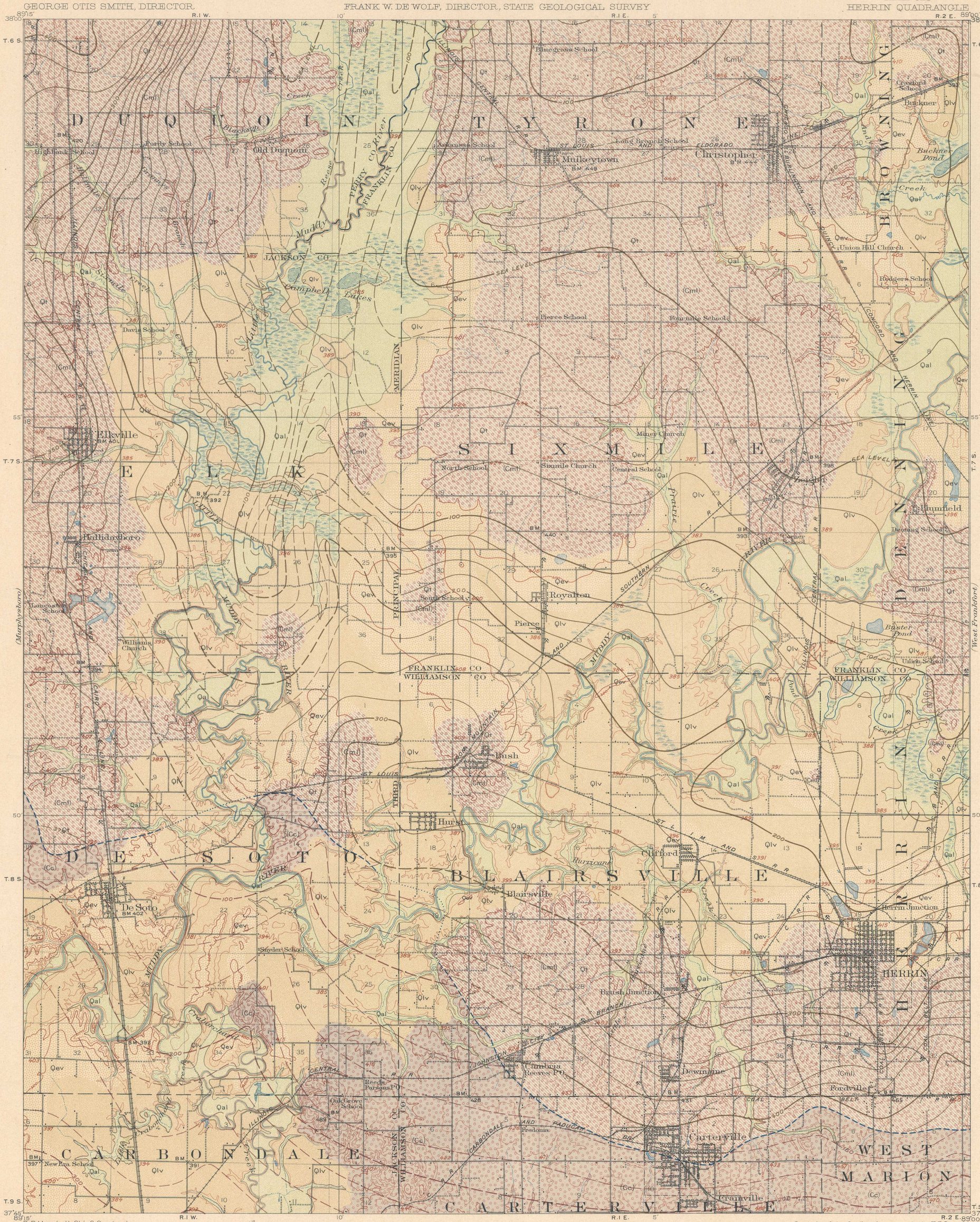
ILLINOIS
HERRIN QUADRANGLE



LEGEND

SEDIMENTARY ROCKS

(Areas of subaqueous deposits are shown by patterns of parallel lines, subaerial deposits by patterns of dots and circles)

Qal	**Alluvium** *(in flood plains of present streams)*	Recent
Qlv	**Later valley fill** *(fluvio-lacustrine clay and silt on tributaries of Mississippi River)*	Recent ?
Qev	**Earlier valley fill** *(fluvio-lacustrine sand, clay, and silt, apparently older than Qlv on tributaries of Mississippi River)*	Pleistocene
Qt	**Glacial till** *(drift overlain by thin loess and locally by fine wash)*	Illinoian stage

QUATERNARY

(Cml)	**McLeansboro formation** *(shale, limestone, and sandstone with several thin coal beds)*	Pennsylvanian *Deeply covered by drift and loess in most places*
(Cc)	**Carbondale formation** *(shale, sandstone, and limestone with two or more workable coal beds: Herrin (No. 6) coal at top, Murphysboro (No. 2) coal at base, not exposed at surface)*	

CARBONIFEROUS

ECONOMIC AND STRUCTURE DATA

Outcrop of workable coal *(Herrin (No. 6) coal in Carbondale formation, generally overlain by surficial deposits; dashed line shows approximate and dotted line very doubtful location of outcrop)*

200 — *Structure contours on the base of Herrin (No. 6) coal* *(doubtful position of coal indicated by dashed lines; contour interval, 25 feet)*

100 — *Structure contours on the base of Murphysboro (No. 2) coal* *(Murphysboro coal about 250 feet below Herrin coal; doubtful position of coal indicated by dashed lines; contour interval, 25 feet)*

⚒ *Coal mines*

Note: *The most valuable coal is the Herrin (No. 6) at the top of the Carbondale formation. Other coals, more deeply buried, occur throughout the quadrangle; clay and shale, for brick and tile, and limestone, for cement material and building stone, occur in McLeansboro and Carbondale formations. Quaternary deposits yield sand and clay.*

R. B. Marshall, Chief Geographer.
W. H. Herron, Geographer in charge.
Topography by W. J. Lloyd and J. A. Duck.
Control by L. E. Tucker, Henry Bucher, and T. A. Green.
Surveyed in 1908.

SURVEYED IN COOPERATION WITH THE STATE OF ILLINOIS.

Geology of the Carboniferous rocks by T. E. Savage,
Quaternary by E. W. Shaw.
Surveyed in 1908 and 1909.

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Scale 1/62500

1 0 1 2 3 4 Miles

1 0 1 2 3 4 5 Kilometers

Contour interval 20 feet.

Datum is mean sea level.

Edition of Mar. 1912.

APPROXIMATE MEAN DECLINATION 1908.