

DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

GEORGE OTIS SMITH, DIRECTOR

BULLETIN 342

RESULTS

OF

SPIRIT LEVELING IN CALIFORNIA

1896 TO 1907, INCLUSIVE

BY

S. S. GANNETT AND D. H. BALDWIN

PROPERTY OF
U. S. GEOLOGICAL SURVEY



WASHINGTON
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	Feet.
Bear Meadow, 0.5 mile northwest of, south of trail, on summit west of Bear Meadow, in granite ledge; bronze tablet stamped "7554 F"-----	7,561.709
Cassidy Meadow, south side of Rattlesnake Lake, sec. 24, T. 5 S., R. 25 E., east of granite point, in ledge between trail and lake; bronze tablet stamped "5576 F"-----	5,583.419

TOLLHOUSE SCHOOLHOUSE, NORTHWEST ALONG PUBLIC ROAD, TO POWER HOUSE; THENCE ALONG PIPE LINE, TO RESERVOIR; THENCE ALONG DITCH TO A POINT 2 MILES SOUTHEAST OF NORTH FORK.

T. 10 S., R. 23 E., sec. 8, south of intersection of Pine Ridge and power-house roads, in top of granite ledge; bronze tablet stamped "2013 F"-----	2,009.411
T. 9 S., R. 23 E., sec. 18, San Joaquin, light and power house, at northeast corner of building, in granite pillar; bronze tablet stamped "1013 F"-----	1,009.326
T. 8 S., R. 23 E., sec. 30, North Fork, 2 miles southeast of post-office, west of road and ditch, at sharp curve above field and house, in granite boulder 10 by 8 feet; bronze tablet stamped "2503 F"-----	2,499.788

LOS BANOS, MERCED, SONORA, AND YOSEMITE QUADRANGLES.

MARIPOSA AND MERCED COUNTIES.

The elevations in this list are based on an aluminum tablet in southeast corner of the county court-house at Merced. The elevation of this is accepted as 171.118 feet above mean sea level as determined by precise leveling from Benicia.

The work was done in 1905 mostly by Mr. C. H. Semper, levelman, partly run as a double-rodged line and partly the mean of lines run in opposite directions. The connection Yosemite Point to Snow Flats was made by Mr. R. A. Farmer, topographer.

MERCED QUADRANGLE.

MERCED, ALONG HIGHWAY, TO MERCED RIVER.

	Feet.
Merced, southeast corner of county court-house; aluminum tablet stamped "171 B"-----	171.118
Merced, 4.3 miles north of, at entrance to Crocker Huffman back ranch, west side of road, 20 feet north of gate; iron post stamped "175 B"-----	175.222
Sixmile House, northeast corner of fork with road to east; iron post stamped "206 B"-----	205.775
Sixmile House, 3.3 miles north of, 65 feet south of bridge over creek, east side of road; iron post stamped "377 B"-----	376.949
Sixmile House, 6.7 miles north of, at northwest corner of fork with road to west; iron post stamped "284 B"-----	283.913

AMSTERDAM, SOUTHEAST ALONG RAILROAD, TO MERCED.

Amsterdam, 3.3 miles southeast of, north margin of railroad and highway, 4 feet east of milepost 157; iron post stamped "196 B"-----	195.984
Amsterdam, 6.4 miles southeast of, at southwest corner of fork with road to Atwater, at J. J. Gray's ranch house; iron post stamped "175 B"-----	175.333

LOS BANOS QUADRANGLE.

SNELLING, WEST TO HOPETON; THENCE SOUTH TO AMSTERDAM.

	Feet.
Snelling, 4.5 miles southwest of, at corner of fork with road to north, at fence corner of J. G. Ruddle's ranch; iron post stamped "204 B"-----	204.037
Hopeton, at southeast corner of fork with private road, in front of saloon; iron post stamped "185 B"-----	184.986
Hopeton, 2.2 miles south of, southwest end of bridge over Merced River, west margin of road; iron post stamped "172 B"-----	172.245
Amsterdam, 140 feet west of large warehouse, 10 feet east of station signboard, 20 feet north of track; iron post stamped "215 B"-----	215.156

SONORA QUADRANGLE.^a

MERCED RIVER, NORTHEAST TO SNELLING; THENCE EAST TO MERCED FALLS; THENCE NORTH-EAST TO COULTERVILLE; THENCE EAST TO 2.4 MILES SOUTHEAST OF BOWER CAVE.

Snelling, 1.7 miles southwest of, 640 feet north of Merced River roller mills, 60 feet southeast of end of bridge over Merced River, at fence line; iron post stamped "243 B"-----	243.114
Snelling, at southwest corner of Lewis and Third streets; iron post stamped "259 B"-----	259.008
Snelling, 2.7 miles east of, on south side of road, on line of east margin of I. J. Buckley's brick ranch house; iron post stamped "291 B"-----	291.026
Merced Falls, at northeast corner of yard of Merced Falls Power Company, on margin of road; iron post stamped "351 B"-----	351.125
Merced Falls, 2.9 miles north of, at summit of mountains, 30 feet west of road; iron post stamped "764 B"-----	763.825
Webbs, at southwest corner of yard fence, margin of road; iron post stamped "1046 B"-----	1,045.953
Peter Senges, at gate leading to ranch house, at margin of fence; iron post stamped "1128 B"-----	1,127.958
Peter Senges, 1.5 miles north of, at junction of Piney Creek with Merced River, 125 feet south of creek, 700 feet west of river, near corner of fence; iron post stamped "556 B"-----	555.979
Baxter post-office, northeast corner of yard fence; iron post stamped "1250 B"-----	1,249.912
Baxter, 3.1 miles north of, at junction of roads to Coulterville and Horseshoe Bend, 10 feet south of stage station office; iron post stamped "858 B"-----	857.965
Coulterville, opposite southeast corner of Jeffrey's Hotel, at corner of street in front of burned brick building; iron post stamped "1676 B"-----	1,676.092
Coulterville, 2.5 miles east of, 0.6 mile east of forks of road, at horse-shoe bend in road, south side of fence line, near large oak 4 feet in diameter; iron post stamped "2211 B"-----	2,211.034
Coulterville, 5.7 miles east of, at summit of mountain, 0.4 mile east of Mountain View saloon, 15 feet south of road; iron post stamped "3346 B"-----	3,346.039
Bean Creek Bridge, 1.5 miles east of, in front of W. H. Dudley's ranch house, at northwest corner of front yard fence; iron post stamped "2984 B"-----	2,984.063

^a For additional elevations outside this quadrangle see p. 121.

	Feet.
Bower Cave, at road crossing North Fork of Merced River, 50 feet east of river, at north margin of road; iron post stamped "2349 B"-----	2,349.038
Bower Cave, 2.4 miles southeast of, at northeast corner of school-house yard; iron post stamped "2939 B"-----	2,939.069

YOSEMITE QUADRANGLE.

NEAR BOWER CAVE, SOUTHEAST TO MERCED RIVER; THENCE EASTERLY ALONG SAME TO YOSEMITE VALLEY.

Kinsley, on south side of road, at margin of fence, directly opposite post-office; iron post stamped "2715 B"-----	2,714.998
Jenkins Mountain, summit of mountain, on trail, 15 feet south of large oak; iron post stamped "3289 B"-----	3,289.039
Jenkins Mountain, at east foot of, 145 feet west of Big Grizzly Creek, 130 feet north of Merced River, 30 feet east of old cabin, at edge of trail; aluminum tablet stamped "1324 B"-----	1,323.761
Ned Gulch, 1.9 miles east of, 0.5 mile east of junction of South Fork with river, on long flat ground, at foot of slope, north side of large rock; aluminum tablet stamped "1425 B"-----	1,424.982
Ferguson Mine, 2.2 miles east of, 2 feet south of bridge over Merced River, west abutment, 20 feet east of west end; aluminum tablet stamped "1586 B"-----	1,585.908
Merced River Bridge, 2.5 miles east of, at west foot of steep grade, in open ground covered with boulders, 35 feet east of trail, large granite rock, in river face; aluminum tablet stamped "1824 B"-----	1,823.966
Crane Creek, 0.8 mile east of, trail nearly level with river, 95 feet west of common corner of secs. 9, 10, 15, and 16, T. 3 S., R. 20 E., 10 feet east of large crooked oak, perpendicular rock; aluminum tablet stamped "2117 B"-----	2,116.969
Crane Creek, 2.4 miles east of, 260 feet north of zig zag in trail close to river; in face of perpendicular rock; aluminum tablet stamped "2738 B"-----	2,738.001
Cascade House, 0.7 mile south of, on main road, 100 feet southwest of junction of road with river trail, in face of perpendicular rock; aluminum tablet stamped "3511 B"-----	3,510.981
Yosemite, 50 feet west of west boundary stake of old State park, on north side of road to Cascade Falls, large granite boulder; aluminum tablet stamped "3576 B"-----	3,576.004
Yosemite Valley, north side of river, at west turn to bridge near margin of road, 75 feet northwest of Pohone Bridge, large boulder; aluminum tablet stamped "3880 B"-----	3,879.767
Yosemite Valley, directly opposite Guardian's office, at east margin of road, top of large granite rock; aluminum tablet stamped "3964 B"-----	3,964.287
Yosemite Valley, at junction of roads, north side of river, north and east side of roads, 150 feet northeast of iron bridge over Merced River, at Sentinel Hotel, in center of top of concrete pier 2.5 feet high, base 20 by 20 inches, and top 12 by 12 inches; aluminum plug stamped with a triangle, and "U. S. G. S."-----	3,960.096

* From this point the old system of double rod was used.

	Feet.
Immediately over above bench mark is a rectangular aluminum plate half inch thick marked "Charles D. Walcott, Director, U. S. Geological Survey, Latitude 37° 44' 40", Longitude 119° 35' 21"-----	3,960.138
Yosemite Valley, at power house, 40 feet south of trail to Vernal Falls, 40 feet north of power house bridge, 30 feet north of road, large granite boulder; aluminum tablet stamped "4034 B"-----	4,034.061

UP YOSEMITE FALLS TRAIL, NORTHEAST TO SNOW FLAT.

Yosemite Valley, at foot of trail to Yosemite Falls, 100 feet west of road, 30 feet south of trail, face of large granite boulder; aluminum tablet stamped "3989 B"-----	3,989.013
Yosemite Valley, south of trail to Yosemite Falls, in rock; aluminum tablet stamped "F 1905 5031"-----	5,030.576
Yosemite Valley, in angle of trail to Yosemite Falls, 100 feet from large flat rock used as lookout to bottom of falls, top of large granite rock; aluminum tablet stamped "5143 B"-----	5,142.666
Yosemite Valley, top of Yosemite Falls, east side of bridge over Yosemite Creek, south side of rock foundation of abutment; aluminum tablet stamped "6603 B"-----	6,603.056
Yosemite Point, at west end of iron railing; triangulation tablet-----	6,934.616
Summit north of trail, rock 5 feet base, 3 feet high; aluminum tablet stamped "F 7852 1905"-----	7,851.765
Junction of trail with Tioga wagon road, south of, on rock 3 by 3 by 3 feet; aluminum tablet stamped "7981 F"-----	7,981.013

BRIDGEPORT AND MOUNT LYELL QUADRANGLES.

MONO AND TUOLUMNE COUNTIES.

The elevations in the following list are determined mostly by single unadjusted lines based upon a new elevation at Snow Flats which was determined in 1905 by a single spur from a double-run spur line run to Yosemite Valley from a bench mark at Merced on the precise-level line from Benicia.

The results were formerly published in the Appendix to the Twentieth Annual Report, based upon a double-rodged line from Stockton; but as now corrected the elevations by this list are 4.389 feet greater than by the corrected line from Stockton and 6.355 lower than by single line of 1905 from Laws. Part of a circuit to Moho Mills is on Benton quadrangle (p. 101).

The leveling was done in 1898 under Mr. R. B. Marshall, topographer, by Mr. C. R. Smith, levelman. The bench mark at Miller Bridge was established by L. D. Ryus, levelman, in 1901, from Fresno.

BRIDGEPORT QUADRANGLE.

TO HARDY STATION FROM BENCH MARK 2.5 MILES WEST.

	Feet.
Hardy station, about 2.5 miles west of, on rock ledge 1,400 feet east of bridge over West Walker River, in a bend of the road, on south side of grade; copper bolt stamped "6703" (elevation by corrected line from Stockton, 6,702.518)-----	6,706.907