

a topographical survey of the city and its approaches was begun. The triangulation, in charge of Sub-Assistant C. H. Boyd, based upon such data as could be availed of or discovered (the primary and secondary points of the work of 1844), was extended over the area designated. The points determined by Assistant Boyd included the following objects, whose identification at the present time is quite possible: "House of Refuge," "Mt. de Sales," "Druid Hill," "Greenmount Cemetery," "St. John's," "Baltimore Cemetery," "Pious" (Rives Hill), and "Clifton." The topography was begun at the same time by Aid J. W. Donn. It was designated that the area of the survey should be limited to a circuit of four miles, with the Battle monument as the centre. The triangulation was completed during the summer and the topography advanced to the south along the principal roads. J. W. Donn was succeeded by C. T. Iardella in this work in October. C. M. Bache was also assigned to a part of the survey in January, 1864. C. M. Bache advanced the work from Jones' Falls westward to a junction with the initial survey of J. W. Donn, while C. T. Iardella proceeded eastward of the Falls to Cross Keys village. C. M. Bache finished his work in September, having covered an area of 20.5 square miles. C. T. Iardella continued his work until the middle of 1865, the last part of it upon the south side of the Patapsco. The area surveyed was 30 square miles.

**HYDROGRAPHIC SURVEY OF THE BRANCHES OF THE LOWER PATAPSCO.**  
—During the early summer of 1869 the following branches of the Patapsco river were surveyed by Assistant J. W. Donn: Curtis creek and its branches, Stony creek and its branches, Rock creek, Bodkin creek and its branches—all on the west side—and Bear creek and its branches, North Point and Welshman's creek on the east side.

**TRIANGULATION OF 1866.**—This work, by Assistant F. P. Webber, was carried over the Patapsco river from the entrance at Seven-foot Knoll to the city. One point, "Washington Monument," distant from the river and within the city limits, was included in his scheme. The points in his work were generally useful in harbor and river re-surveys, and comprise the following, many of which entered into succeeding schemes: "Monument," "Bayview Asylum," "Fort Mc-