letter-paper of the shops."[69] Stationers could also purchase pre-folded quarto-sized writing paper in 20-quire reams. Because a single gathering of 24 folded sheets would not lie flat, stationers would often break the 24-sheet quires into smaller units, for instance, into two separate groupings of 12 sheets apiece, or 24 leaves each. Thus, a complete 24-sheet quire could contain two sub-quires.

The dimensions of the unused bifolia of London Superfine in the Brontës' writing desks measure 38 cm wide by 23 cm tall when fully open, or approximately 15 by 9 inches, resulting in a ratio of 1.65—a measurement that does not conform to the standard sizes of full sheets of writing paper sold at the time, whose ratios range from 1.23 to 1.29.[70] These measurements indicate that these bifolia were indeed originally created from half-sheets, which, when folded, would have constituted quartos when compared to the original full-formed sheet—a fact confirmed by examining the Cream Laid paper that Brontë used in the manuscript of *Shirley*. Its wirelines run vertically (quarto-wise) instead of horizontally, as with a true folio, and the chain lines run from the gutters to fore-edges of the leaves.

Volume 3 of the manuscript contains one such 24-leaf quire of 12 folded, nested bifolia, where the exact position of the quire's watermarks indicate that the leaves are conjugate. Measurements of each of these partially visible watermarks suggest that the entire watermark (i.e., as it would appear on a half-sheet) would have measured about 16.2 cm.[71] A study of the measurements in this particular gathering contains notable outliers in the cut of the sheets that clearly show the conjugacy of BM f. 3 and f. 22, of BM f. 7 and f. 18, of BM f.8 and f. 17, of BM f.10 and f. 15, and of BM f.11 and f. 14 (see table 1).

Other partial-quire combinations were possible. Printers working from manuscript copy referred to these smaller units of nested bifolia as ternions, quaternions, quinternions, &c.[72] Although these units could have resulted from further division and use by writers themselves, Emily Brontë's writing desk contains an intact, unused septernion, or partial quire of seven bifolia, as well as an unused partial quire of 10 nested bifolia—suggesting that larger gatherings were also commonly made up and used.[73]

69. See p. 236 under the entry for "Paper" (pp. 235–39) in volume 2 of Luke Herbert's *The Engineer's and Mechanic's Encyclopaedia Comprehending Practical Illustrations of the Machinery and Processes Employed in Every Description of Manufacture of the British Empire* (London: Thomas Kelly, 1849). https://www.google.com/books/edition/The_Engineer_s_Mechanic_s_Encyclopeadia/69w-b8McR5EC, accessed September 15, 2024.

70. A publication published in conjunction with the Great Exhibition provides a table with the measurements of writing papers, as opposed to printing papers; see p. 945 in vol. 3 of *Reports of the Juries on the Subjects in the Thirty Classes into Which the Exhibition Was Divided* (London: Spicer Brothers and W Clowes and Sons, 1852). See https://www.google.com/books/edition/Reports_by_the_Juries_on_the_Subjects_in/YJdDAAAAcAAJ, accessed August 16, 2021.

71. This measurement is easiest to detect what would have been the centermost bifolium (BM ff. 12–13) of the quire.

72. See entries for "Ternion," "Quadternion," and "Quinternion" in Charles Thomas Jacobi's *The Printer's Vocabulary* (London: The Chiswick Press, 1888). https://www.google.com/books/edition/The_Printers_Vocabulary/6oYaAAAAMAAJ, accessed August 15, 2021.

73. See previous footnote.