

reducing experiments, the results, owing to the lightness of the coal particles, and the consequent ease with which they are floated off, come out surprisingly near to the truth. In travelling, we may dispense with the washing bottle, by employing, in its place, a piece of straight tubing drawn out abruptly to a point. This is to be filled by suction, and the water expelled with the necessary force by blowing down the tube. A tube 6 inches long and the fourth of an inch in diameter, will hold more than a sufficient quantity of water to be used between the separate grindings.* The mortar should be but slightly inclined, and the stream of water must not be too strong; otherwise, especially if the coal be ground up very fine, portions of the pyrites may be lost. The proper manipulation, however, is easily acquired by a little practice.

* In the third edition of his *Probirkunst*, p. 60, PLATTNER alludes to the use of a tube of this kind, as a make-shift for the washing bottle, in reducing operations; but in the new edition, this reference to its use is omitted.

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