

in great abundance, and for a considerable time, till the metal is in fusion; and by giving only a smaller heat than what fusion requires, we shall evaporate the metal so as to diminish the weight considerably.

I am certain of this circumstance, which also elucidates the intimate composition of metals. I was desirous of collecting this plentiful vapour, which the pure fire of the sun causes to issue from metal, but I had not the necessary instruments, and I can only recommend to chemists and naturalists to follow this important experiment, the results of which would be as much less equivocal as the metallic vapour is pure; whereas, in all like operations made with common fire, the metallic vapour is necessarily mixed with other vapours proceeding from combustible matters, which serve for food to this fire.

Besides, this means is the only one we have to volatilize fixed metals, such as gold and silver; for I presume that this vapour, which I have seen rise in such great quantities from these fixed metals, heated in the large focus of my mirror, is neither of water, nor of any other liquor, but of the parts even of the metal which the heat detaches by volatilizing them. By receiving these vapours of different  
metals,