

ed for their distinguished eminence in science.* In this instance, however, they appear complaisantly to have subscribed to *Mr. Hopkins's definition*, where he says, "Black salts are made by boiling down the leys from common wood ashes, until they are perfectly dry;" and "Pot Ashes are made by melting the black salts in a very strong fire, and lading it out into coolers;" without the least intimation that from the alkaline salt all others are to be separated, to make the *best* of ashes:—For, in the alkali alone is the excellence of Pot or Pearl Ash. Indeed some have vainly imagined that by *Mr. Hopkins's* method of manufacturing, an actual *transmutation* of 25 or 30 per cent. is effected, and that the saline impurities are converted into genuine alkaline salt.

The gentlemen referred to, who gave *Mr. Hopkins* their certificate, could not entertain such an opinion; for, although *tartar* is alkalinized by fire, and *nitre* by the peculiar inflammability of its acid, when burned, leaves its alkaline basis uncombined, yet the strongest fire of a glass house has never effected the separation of the vitriolic acid from its alkaline basis in vitriolated tartar, or the marine acid from the mineral alkali in sea salt. By force of fire they may both be melted, and perhaps evaporated; but when dissolved, or condensed, they are found the same, and may again be crystallized. No chemical fact is better known, or more thoroughly established, than that the union of acids and alkalies in neutral salts, is too strong to be in the least effected by any sort of earth yet known; therefore it is not to be expected that either the acid of neutral salts will be dissipated, or any new combination will take place in consequence of calcining them with the earth of wood ashes.

Mr. Hopkins also says, that "Pot Ashes made from calcined ashes are allowed to be much superior to those made in the common mode."

However fair the Pot Ash may be made to appear by the previous calcination, unless the neutral salts have been separated, it cannot be equally as good as that which is properly made, because it does not contain the same proportion of alkaline salt.

There cannot be a more decisive test to evidence this, than to take a specimen of each, and with the same ingredients, under similar management, to ascertain the quantity of soap they severally produce.

* *David Rittenboush, Benjamin Rusb, James Hutobinson, Benjamin Say, Casper Wister, jun. and John Pennington.*