

- C, C, *The Two sinking Pipes, for waste Water, that is not evaporated.*
 D, D, *Clacks or Valves, to keep out the Air.*
 E, E, *The Two Dispersers and Spouts.*
 F, F, *The Stools with a Centre-pin, on which the Disperser resteth.*
 G, G, *The Two iron Pipes, in which the Water is conveyed to the Cistern.*
 H, *A Cistern of hot Water.*
 I, I, *Two Cog-wheels, to turn the Disperser.*
 K, *A Steam-pipe, in which is conveyed the Steam to the Cylinder.*
 L, *The Cylinder of the Fire-engine.*
 M, M, *Leaden Pipes, that convey hot Water from the Cistern to the Disperser.*
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XX. *An Examination of Westashton Well-waters, belonging to Tho. Beach, Esq; a Well about Four Miles from that of Holt; by Ambrose Godfrey Hankewitz.*

Obs. 1. **I** Took four Ounces of the *Westashton* Water, with as much Milk, and set them on the Fire; as soon as they boiled, the Milk began to curdle, which denotes a brackish Salt of a neuter Nature. The Water changes Syrup of Violets green.

Obs. 2. Some Powder of Galls infused in this Water, gives it a Tinge of a brown Purple; by which it appears, that this Water is Chalybeat: For all Martial Waters will, with Galls, turn blackish or inky.

Obs. 3.

Obs. 3. A fixt *Alkali*, as *Ol. Tartar. per deliq.* and a volatile one, as *Sp. Sal. Armoniaci*, caused a white Precipitation, which denotes an aluminous cretaceous Earth.

Obs. 4. A Solution of Salt of Lead, causes a Cream-like, or a troubled milky Colour.

Obs. 5. The usual acid Spirits, *viz.* Spirit of Salt, Nitre, and Vitriol, cause no Alteration; which shews that the Water is itself impregnated with an Acid.

Obs. 6. The Water, being evaporated to a Pellicule, deposits saline Crystals of a rough or austere Taste, being of a styptic Nature; and separates a Martial yellowish Okre (which is attracted by the Loadstone), and is an Absorbent, for it ferments with Acids. The remaining Brine, being evaporated to Dryness, leaves a Salt of a lixivious alkaline Taste.

Obs. 7. Some of these Salts being put into Water, Three Parts out of Four dissolve very readily; but One-fourth Part will not dissolve at all, but is of a Talcky Nature, and unalterable in the Fire.

Hence we may observe, that Chalybeat Waters, as long as they retain their natural sulphureous *Gas* are capable of keeping suspended, or floating in them, these Talcky Substances; but that Boiling drives away that sulphureous *Gas*, upon which this Talcky Substance subsides, and cannot again be dissolved in Water, and remains fixt against the Power of the Fire; for it suffers no Alteration upon a red-hot Iron, neither emitting Flame, nor melting, as neither doth Talck itself.

Obs. 8. These Chalybeat-waters contain somewhat of the same Nature as our Cathartic *Epsom salt*, only not so mild upon the Tongue; for by this Examen,

when their *Gas* is gone, they are found to contain two Sorts of such-like Earths; the one absorbent, fermenting with Acids; and the other fixt, or Talcky: And that this Substance is really Talcky, is confirmed by the digging up of a pretty deal of Talc in the sinking this Well.

All the Salts of the medical Waters are more generally alkaline than acid, being of a Martial Nature, impregnated with Sulphur, which gives them a muriatic Taste.

We may hence conclude, that this *Westafhton* Water is a very good Chalybeat Water; and, by Report, more plentiful and more constant all the Year round, than the Well at *Holt*, which Spring diminishes much at a certain time of the Year; but both seem alike for their Virtues, and physical Use, being both alike Martial.

XXI. *An Examination of the Chilternham Mineral Water, by Conradus-Hieronimus Senckenberg; which may serve as a Method in general for examining Mineral Waters.*

THE Water is bright and clear to the Sight, of no Smell, yet of a bitter Taste.

To know its constituent Parts, the following Experiments were made; and, first, to try whether there is any *alkaline Salt* in it.

Rhenish Wine was mixt with the Mineral Water. *Rhenish Wine* is a subtilized *Acidum essentiale* in a spirituous and oily Liquor: Wherefore an *alkaline Salt* should have been manifested; but it was unaltered.

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