

Queen *Elizabeth*; and which, to my Knowledge, is too much practis'd since by unworthy Persons.

It is likely, that many of the coralline Substances mention'd by Authors, may be this, or Parts of it, the Crust being rubb'd off more or less, and its Colour changed, and thereby described for different Corallines.

X. *Extracts of Two Letters from the Reverend Henry Miles, D. D. & F. R. S. to Mr. Henry Baker, F. R. S. containing several Electrical Experiments.*

I.

Dear Sir,

Read Feb. 13.
1745-6.

I AM under no Doubt, but that Experiments with Sulphur are capable of being improv'd, and hope shortly to make is appear. I am loth to venture my glafs Tubes of Flint for a Mould, but intend to procure one of common Glafs; having lately had the Misfortune of losing my best, in so odd a Manner, that I believe you will excuse me if I trouble you with the Account.

I had been using it but a little Time in the Evening; and, before I laid it up, having by me a round Ruler small enough to go into the Bore, when it was cover'd with a Roll or two of brown Paper, it came into my Head to excite it, by rubbing it a little on the Inside with the said Ruler and Paper; but not finding any Effect of it, after a few Minutes Trial, not so much as to attract the smallest Thread, I laid it in my Window in my Study on a Parcel of
Papers

Papers and Pamphlets, where it used to be put; and next Morning, as we were at Breakfast, I heard a Snap, and, on turning my Head, found about two Inches of my Tube broke off very regularly. Upon this I took it, and plac'd it against a Cupboard-Door, erect, in a Pocket of Leather, that had been nail'd up against the Door for such a Purpose. The upper End was tied to two Thongs of Leather, but not tight, only to prevent its stirring: Thus it continued safe till I went to Bed; but, in the Morning, upon opening the said Door, I was surpris'd to find my Tube in Shivers, except about three Inches, as if it had been broke with a smart Blow of a Hammer. The Cupboard is over the Fire-place, and so near it, that I think it impossible it should ever have been quite cold; and the Window where it was first put is so near the Fire, and its being laid on the Seat of the Window, a Foot below the Sash, it could not be much affected with the Air from thence. — The Weather was frosty, but the Tube from first to last never out of the Room; and I am sure never had any Blow.

The Stick of Brimstone I last made, with which I kindled Lamp Spirits so readily, as I informed you before, was set up in the foremention'd Cupboard in an erect Posture, has lost all its electric Virtue, and cannot be made to attract a Down-Feather, or a fine Thread. — This I know not how to account for, unless it be, that the exposing it to the Air, by its not being wrapt up in any thing, may have deprived it of its Power: For, if I misremember not, *Stephen Gray* used to keep his Sulphur conic Bodies, cast in Wine-Glafs, in a Box, and wrapt up in Flannel; however

however I shall attempt to recover it again. — The Cupboard is small, and never cold. — My Stick of Wax kept in my Desk, not wrapt, will attract a Thread at any time, without rubbing at all.

Last Night, having several Gentlemen with me, who were desirous of seeing me set Fire to some Spirits of Wine, I was willing to try whether I could not kindle the same with an Icicle; but, not being able to get one, I attempted it with a thick Piece of Ice, and immediately succeeded, in Presence of 7 or Persons; and I think the Sparks of Fire from the Ice, when the Finger of a non-electric Person was brought nigh it, were as large and as powerful as any I ever saw; so that I am satisfied the Power of them is no ways diminish'd by the Coldness of the Ice: And I doubt not, but that, if the Ice be kept from melting and dropping into the Spirits, Ice will kindle them as readily as any other Substance: The Spirits were such as we use for the Tea-kettle Lamp, and far from being of the best Sort.

One Circumstance more I will mention, and release you. — By Accident one of the Gentlemen approaching the electrified Person with his Hand near his Shoulder, the said Gentleman felt a very pungent Stroke on his Flesh, thro' his Coat and Waistcoat, which were both Cloth. This was repeated several times, and in every one's Opinion (on whom Trial was made) the repulsive Stroke was as smart as it is wont to be on the End of the Finger, when nothing intervenes; and the Sensation continued as long. I know not whether this has been before taken notice of; if it has, your Goodness will

excuse my Impertinence; and vouchsafe to believe me under many Obligations.

Tooting, Feb. 4. 1745-6.

II.

Extract of a Letter from Dr. Miles to Mr. Baker.

I Scarce thought the Account I sent last Week, of my kindling Spirits of Wine with Ice the 3d of this Instant, worth your Notice; but that as I had not heard of any one at home who had done it, I inclined to relate it to you. Since that, I made another Trial, and succeeded with all the Ease imaginable; the Spirit kindling the very Moment of my approaching them with the Lump of Ice, which was an Inch and a Quarter thick. After this I took a Clamp of Iron, such as is used for heating Box-Irons for smoothing Linen-Clothes; and, having heated the same red hot, applied it to the Spirit, as I stood on the Cake of Wax electrified, holding the same in a Pair of Tongs.

I did not, I confess, expect much from this Trial; and the Event was, that I could not kindle the Spirits, during the Time the Redness continued in the Clamp; but, as soon as that disappear'd, and it began to look blackish, the Spirits were kindled as usual.

I shall not draw any Conclusion from a single Trial; perhaps some Reasons might be assigned, why the

the red-hot Iron did not kindle the Spirits, provided one were sure this would always be the Case; and if the Experiment were repeated with the same Consequence a good many times, one would venture to say, that the Heat of the Iron contributed no Power of inflaming to the *Effluvia*.

My Tube I have used of late is not made of the fine Flint-Glass, but such as common Wine-Glasses are made of.

I have got me a Tube made of common green Glass: This is exceeding light, in Comparison with others; and may be excited with double the Time and Pain required for the others, but yet not without warming it at the Fire; though this seems powerful enough to attract the Bunch of Threads, yet I am not able to kindle any Spirits with it.

I have made these Trials, that I might be able to determine which kind of Glass afforded the greatest Quantity of *Effluvia*, or at least the strongest, as near as might be; which may not be altogether unuseful to be known.

Your humble Servant,

H. Miles.