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VIII. *An Easy and Cheap Method of preparing Sal Aeratus, (Carbonat of Pot-ash.)* By E. A. HOLYOKE, M. D. of Salem, Massachusetts*.

SAL Aëratus, or the salt formed of vegetable alkali saturated by fixed air (carbonic acid), is, on many accounts, so useful, that a communication of an easy method of preparing it at little or no expence may be beneficial. The following may therefore be acceptable, if it be not already commonly known. I have myself prepared this salt for ten or twelve years past in this way, and it is now kept in our apothecaries shops.

Take a large wooden box †, bore eight or ten holes, half an inch in diameter, in the side of it, just below the lower edge of the cover, at nearly equal distances all round; bore also as many holes in the circular bottom of the box, close to the edge of it: then take another box of the same kind, but of a smaller diameter by half or three quarters of an inch; place this in the larger, and, to keep it steady, thrust three or four wooden wedges between the two boxes. The two boxes ‡ being thus prepared, fill the inner one with the purest salt of tartar, or clean well-calcined pearl-ashes, or any clean pure fixed vegetable alkali: put its cover on the outer box, leaving the inner one uncovered; fling this double box, thus filled, with a cord, and suspend it in a distiller's vat or cistern, while the wash is fermenting, a little above the liquor, or in an empty cistern, if it has been much used, and still retains the fixed air: let it remain in this situation for six weeks or two months, or longer if it is not wanted; let it then be taken out, and the salt, now fully saturated with the acid, be exposed to the sun and air to dry.

The salt thus prepared does neither effloresce nor deliquesce

* From the *American Medical Repository*.

† I make use of a common cylindrical box, about nine or ten inches in diameter, and between five and six inches deep

‡ The design of the outer box is merely to prevent any dust or dirt from getting into the salt, while the holes in it suffer the fixed air to be freely admitted.

in the open air, and, for all common purposes, is, I believe, equal to that prepared by crystallisation.

Note. The pearl-ashes had better be put into the box in moderate-sized lumps than in powder, that the air may have free access to it.

But if any choose to have this salt in its most perfect form, let him proceed in this manner :

Dissolve as much of the clean vegetable alkali in boiling rain or other pure water as possible ; filter the solution through paper, pour it into a jar of stone or earthen-ware, cover the vessel in such a manner as that the air may have access to it, but so as to exclude all dust or foreign matter. Let it be hung by a cord in a fermenting vat, or cistern, for a month or two, in which time a great many crystals will be formed ; from which the superfluous liquor may be poured off, and the salt dried in Hippocrates' sleeve. The superfluous liquor may be again saturated with more alkali, and again exposed to the air in the cistern, without any loss. This last is, without doubt, the most perfect mode of preparation, and I have sometimes made use of it ; but, as it is much more troublesome to make than the other, and as the other, for all medicinal purposes, is perhaps equal to this, I have for the most part employed it.

This salt is much more tolerable to the palate, and may be taken in larger doses than the naked alkali ; and as it is decomposed by vegetable acids as well as the mineral, it may be exhibited instead of the alkali in perhaps every case where the latter is proper, unless the fixed air is judged improper.

It is much superior to common alkali in forming Riverius's anti-emetic effervescent draught, as it contains a much larger proportion of fixed air (in which the principal virtue of that medicine is supposed to reside) than the mildest fixed alkali, and is at the same time much more palatable.

I commonly direct about ʒ ii, or rather more, of this salt to be dissolved in ʒ iii of fair water ; a large spoonful of this solution, added to the same quantity of good vinegar, or lemon-juice, at the instant of swallowing it, makes an agreeable dose. But the taste of this solution is so mild, that, if

the prescriber chooses, a spoonful of it may be swallowed alone first, and as much vegetable acid immediately upon it, in which case none of the gas will be lost.

When acidity abounds in the first passages, a little of this salt added to any bitter infusion, or the dry salt added to powder of columbo, or any peptic powder, is an effectual antacid.

In calculous cases this salt is recommended by writers, particularly by the celebrated Dr. Cullen in his *Materia Medica*, Vol. II. ch. 13. as being an happy expedient for conveying larger quantities of alkali into the stomach, than it can bear in its natural state.

Hitherto the common mode of preparing the salt for this purpose, I believe, has been by impregnating a solution of fixed alkali with fixed air, by means of Dr. Nooth's machine; but any one who has prepared the medicine in both ways, will readily give the most decided preference to that above described, on account both of ease and cheapness.

It is scarcely worth mentioning; that, for æconomical purposes, such as promoting fermentation in dough for bread or cakes, where pearl-ashes is commonly employed, the salt *aëratus* is much to be preferred, on account of the much larger quantity of fixed air eliminated in the process.

IX. *Communication from CAPEL LOFFT, Esq. respecting the late Meteor and the present Comet.*

To the Editor of the Philosophical Magazine.

SIR,

Troston, near Bury, Suffolk.

OBSERVING an account of the Meteor of Sunday Sept. 22, in p. 434 of your last Number, I trouble you with an account of it as observed here.

I was looking on that evening for the Comet, which I expected to have seen between the Northern Crown and the constellation of Hercules. This being about half past eight, my eye consequently was then directed westward. The sky was cloudy and misty: very few stars appeared. Suddenly my at-
tention