tained; this is his criterion when to ſtop. What may appear to you ſingular (tho' he aſſures me it has often happened in his practice) is, that inſtead of producing conſtipation, which in ſmall doſes is the conſtant effect of opium; it proves in large doſes as certainly laxative. He farther declares, that he has adminiſtered opium in mortifications in this manner theſe thirty years.

VI. *An account of the poiſonous effects of the Oenanthe Crocata, or Hemlock Dropwort; by* Richard Pulteney, M. D. F. R. S. *phyſician at Blandford. Communicated in a letter to* Maxwell Garthſhore, M. D. F. R. S. & S. A. *and by him to Dr.* Simmons.

A Perſon in the neighbourhood of Blandford having lately been poiſoned through a miſtake, and the circumſtances of the fact variouſly miſrepreſented, has induced me to draw up a brief ſtate of the caſe, from the beſt information I could procure after her death; and it is accompanied by ſome obſervations, which may have

have a tendency to put people on their guard againſt ſuch errors.

It had been recommended to this poor woman to take the juice of *water parſnep* and *water creſſes*. The perſon employed to procure theſe herbs, unhappily miſtook, for the former of them, the *hemlock dropwort*; and, as an aggravation of the evil, the juice of the root, which is more virulent than that of the leaves, was uſed. She drank little, if any, more than half a tea-cup full, in the morning faſting. In leſs than a quarter of an hour ſhe complained of exceſſive giddineſs, and ſoon after vomited, but not plentifully: before the half hour was completed, convulſions came on, and ſhe was from that time deprived of the power of ſwallowing, and of her ſenſes. In this condition, owing to the conſternation the family was in, little or nothing was got down, and the fits following each other faſt, and increaſing in ſtrength, after having ſuffered nine or ten of them, ſhe died in two hours and an half from the time of ſwallowing the fatal potion.

OBSERVATIONS.

The two moſt poiſonous plants perhaps naturally growing in England, are ſuch as have,

from their general reſemblance to the *water parſnep*, been frequently miſtaken for it, and numerous inſtances have confirmed the very virulent effects of them. Theſe two plants are the *hemlock dropwort* (oënanthe crocata), and the *long-leaved water hemlock* (cicuta viroſa). Theſe, together with the *water parſnep*, the *hemlock*, or kex, as it is vulgarly called, *ſmallage*, *fools parſley*, or leſſer hemlock, and many others of the ſame natural claſs called by Botaniſts umbelliferous plants, have ſuch a general likeneſs in the manner of growing, the form of the leaves, and in the mode of flowering, that it is not at all ſurpriſing, that unſkilful people, and thoſe not uſed to the nicer diſcriminations, which hold among plants of the ſame natural claſs, ſhould miſtake one for the other; add to this, that the ſmell of the herb, and the root of *hemlock dropwort*, not unpleaſant, nor very unlike that of the parſnep, may ſtill farther impoſe upon the ignorant and unwary.

The long-leaved water hemlock is rarely found in the county of Dorſet; whereas the *hemlock dropwort* is very common, much more ſo than the *water parſnep*, by the ſides of the rivers and brooks, and in wet ditches, particularly ſuch as communicate with running waters, by which means

means the ſeeds and roots are carried by floods to a diſtance from the borders of the rivers. It is never ſeen on dry and hilly grounds, nor even meadows, unleſs in ſuch as are liable to be flooded. The leaves are much ſmaller cut, more ſucculent, and of a deeper green, than thoſe of the *water parſnep*, and more reſemble thoſe of *ſmallage* and *parſley*. But there is one diſtinction which will never fail, if properly attended to, and it is earneſtly recommended to all thoſe who are dubious of the plant they mean to procure, to attend to it. The root of the *hemlock dropwort* conſiſts, not of one conical or top-root, like a parſnep, neither of a number of fibres, nor of a ſingle round bulb or two, but is what may be called a fingered root, made up of a number of oblong roots, all proceeding from the bottom of the ſtalk as from a center, and in proportion to the age or vigour of the plant, ſmaller or larger, each of them uſually as thick, and nearly as long, as the finger, and from three, or four, to ſix, eight, or ten in number.

Of the *water parſnep* there are three ſpecies growing in England, each of them more or leſs frequently found in different parts of the kingdom; and all growing in water or watery ſituations. Theſe are the *ſium latifolium*, broad-

leaved water parſnep ; *ſium anguſtifolium*, or *berula officin.*; and the *ſium nodiflorum*, creeping water parſnep. The two firſt are thoſe which were intended to be uſed in medicine, and the ſecond particularly, is that which tradition has ſo ſtrongly recommended as an *antiſcorbutic*; but, as the laſt ſpecies is the moſt common, and is more eaſily procured, it is uſually gathered for medicinal purpoſes, inſtead of the other. The miſtake is perhaps of no conſequence, as it appears to be innocent. The roots of the firſt kind are, on good authority, ſaid to be noxious; they certainly have proved ſo to brutes. The juice of the leaves of the two others may be drank to the quantity of a quarter of a pint, and is ſafe and harmleſs. It is perhaps however to be regretted, that the *water parſnep* ſhould have obtained the character of a ſpecific with many people, in what are called ſcorbutic caſes; ſince it has occaſioned ſuch fatal errors, from miſtaking for it, not only the *hemlock dropwort*, but *the long-leaved water hemlock* in many inſtances, and ſince alſo it may juſtly be doubted, whether the virtue attributed to *water parſnep*, as an *antiſcorbutic*, does not reſt, howſoever ſanctioned by time, on a very ſlender foundation; it probably extends no farther than may be owing

owing to its gently diuretic quality, and the power of correcting a putrid tendency in the animal frame in common with moſt other vegetable productions.

The ſymptoms induced by *hemlock dropwort*, in the inſtance before us, ſufficiently correſpond with thoſe recited in almoſt all the hiſtories of its poiſonous effects on record. Where the quantity ſwallowed was conſiderable, it did not fail, very ſoon, to bring on giddineſs and ſickneſs, which were ſucceeded by convulſions, and ſuch a contraction of the jaw, as precluded, in many inſtances, the uſe of proper aſſiſtance. Thoſe, who are diſpoſed to ſee the hiſtory of this noxious vegetable farther illuſtrated, are referred to the following papers, among others that might be quoted.

Philoſoph. Tranſ. abridged. Vol. II. p. 641.

Phil. Tranſ. at large. Vol. XLIV. p. 227, with an accurate engraving of the plant.

Phil. Tranſ. Vol. L. p. 856.

Gent. Magazine, 1747, p. 321, with a figure of the root copied from the foregoing.

Gent. Magazine, 1755, p. 114.

London Med. Journal. Vol. II. 1781, p. 40.

The moſt effectual method of attempting to relieve the unhappy ſufferer in theſe melancholy caſes,

cafes, although obvious to all intelligent perſons, cannot be too often repeated—as ſoon as a miſtake of this kind is diſcovered, the moſt inſtant relief is to be expected by diſcharging the poiſon from the ſtomach, without the leaſt delay. To this end a large doſe of an emetic ſhould be given. To a grown perſon, thirty or forty grains of ipecacuanha in powder, or an ounce and an half or two ounces of ipecacuanha wine; or ſix, eight, or ten grains of emetic tartar; or twenty grains of white vitriol; aſſiſting the operation, if poſſible, by large draughts of diluting liquors, as warm water, thin gruel, which will probably be rendered more advantageous by the addition of a moderate quantity of vinegar, or other vegetable acid.

This is the firſt and moſt material ſtep where vegetable poiſons have been taken; and I cloſe theſe hints by obſerving, that vomiting is not leſs neceſſary in the caſe of mineral poiſons; ſuch as *arſenic*, or *mercury ſublimate*, *ſugar of lead*, &c. unleſs they occaſion of themſelves a ſufficient diſcharge this way. Here, however, great dilution is not leſs neceſſary; but the addition of ſome alkaline preparation to the diluting liquor is alſo ſtrongly indicated, as a means of decompoſing ſuch ſubſtances, and rendering

ſuch

ſuch parts of them, as cannot be evacuated, in ſome meaſure inert. Moderate quantities, a tea ſpoonful, for inſtance, of ſalt of wormwood, of ſalt of tartar, or of potaſh, to a pint or a pint and an half of the liquid; and, as no time ought to be loſt, if none of the above are in readineſs, lye, made of wood-aſhes, will anſwer, only that the quantity muſt be much larger; as will ſoap-lye alſo. Even ſpirit of hartſhorn may contribute to the ſame purpoſe, if nothing elſe is immediately at hand. Should this evacuation be ſpeedily procured, time will be gained for ſuch farther means as the circumſtances of the caſe may require.

Blandford, May 29,
1784.

SECTION III.

Medical and Philosophical News.

THE Academy of Sciences at Mantua have propoſed the following prize queſtion, viz. "In what conſiſts the poiſon of certain muſh-"rooms, and what are the ſureſt means of pre-"venting or remedying its effects?"—The prize

"is