E R R A T A.

Page 28. *line* 13. for Dilutents, *read* Diluents.
52. *line* 7. for affects, *read* effects.
57. *line* 18. for consequently, *read* consequent

THE USEFULNESS OF A KNOWLEDGE of PLANTS:

ILLUSTRATED

In various Inſtances, relating to MEDICINE, HUSBANDRY, ARTS, and COMMERCE.

WITH

The eaſy MEANS of INFORMATION.

By *J. HILL*, M. D.

LONDON:

Printed for R. BALDWIN, in *Pater-noſter-row*; and J. JACKSON, in *St. James's-Street.*

M. DCC. LIX.

14.

THE USEFULNESS OF A KNOWLEDGE of PLANTS.

INTRODUCTION.

THE frivolous purſuits in which ſome have engaged, under the name of Enquiries into NATURAL KNOWLEDGE, and which the incurious world have been content to diſtinguiſh by the ſame title, have brought that uſeful ſcience to diſgrace: The VIRTUOSO has been conſidered as a NATURALIST, and the FLORIST has been honoured with a name derived from BOTANY. If the credit of that ſtudy were

all, it would be eaſy to paſs over this in ſilence; but more than thoſe who love the ſcience are intereſted in the conſequences: it is in many inſtances neceſſary to the convenience, and in ſome to the very being of mankind: the world therefore owes the ſubject more reſpect than to confound it with the amuſements of an idle, though innocent curioſity.

THE knowledge of plants, in particular, is of ſo various and important uſe, that the Publick would perhaps do wiſely to provide there ſhould be always ſome perſons who made it their immediate care. Such a knowledge may be uſeful in a high degree to MEDICINE, to AGRICULTURE, and to ARTS and COMMERCE; for plants are eſſentially concerned in all theſe: and certainly the greater advantages will be obtained in them, the more the objects are underſtood. May I be permitted to add a fourth great article in which this ſtudy has an high utility? a conſideration indeed ſuperior to them all: 'tis PIETY. He who can ſee the wonders of their form, and not adore the hand that made them, deſerves not

not the character of a rational being; nor does he much leſs degrade himſelf, who ſees them, and is ſilent. In theſe, altho' the humbleſt of his works, we ſee the great Creator clearly and diſtinctly; and while we view their growth, they raiſe the mind to heaven.

So far as MEDICINE depends on plants, a knowledge of them is eſſential equally to its SUCCESS in the preſent practice, and to its ADVANCEMENT by new and uſeful diſcoveries. Who ſhall depend upon the virtues of an herb, a root, or ſeed, when it is impoſſible he ſhould know whether he really takes them? or how ſhall the phyſician judge of their effects, who is not ſure that they were given? yet this uncertainty is too juſtly founded upon the preſent ignorance and inattention of the ſeveral ranks through whoſe hands all preparations muſt paſs between the phyſician's preſcription and the patient. We ſee in ſimple medicines of this kind the abuſe is great; doubtleſs in compounds it is greater: nor is the miſchief confined even within theſe bounds. Tradition tells the mother of a family this herb or that will cure the diſorders of her

children; but ſhe is deceived when ſhe makes the trial; for ſomething elſe is ſold under its name.

ROMAN WORMWOOD will cure indigeſtion; for it is an aromatick, warm, and cordial medicine; but no ſuch herb is brought to market: they ſell SEA WORMWOOD, a nauſeous bitter, in its place, and the true medicine, though poſſeſſed of all its virtues, has thus loſt much credit. All this time there is no plant more hardy than true ROMAN WORMWOOD, none more eaſily propagated in the open ground: but the phyſician overlooks the abuſe; and long neglect has made the other an univerſal ſubſtitute.

MR. DAVIES, on the great ſucceſs of the the BARDANA in the gout, took for three weeks, in vain, a nauſeous infuſion of the root of COMMON BLUNT-LEAV'D DOCK. This had been dug up to ſell under the name of the SHARP-POINTED DOCK, famous in ſcorbutick caſes; and by a ſecond abuſe was palmed upon the purchaſer under this other name.

A few months ſince, the YOUNGER MR. DELAVAL acquainted me he had been

 uſing

uſing the BLACK BRYONY ROOT externally for a fixed diſorder in his ſide, by the preſcription of DR. JAMES; but without any effect. Enquiring into the ſymptoms which would have neceſſarily appeared upon the application of that medicine, I found he had felt nothing of them; and on producing the root, it appeared he had been all the time uſing the WHITE BRYONY; a plant, though idly called by the ſame generical term, yet altogether different in its virtues.

THE inner bark of the ſmall ſhrub FRANGULA, is a cathartick equal to any of the foreign drugs, and is peculiarly excellent againſt obſtinate cutaneous diſorders. I ordered this to a perſon who had ſuch a complaint; and they ſold him, in its name, the bark of COMMON ALDER, an aſtringent.

TO a poor perſon periſhing under a jaundice, I directed the DULCAMARA, a medicine ſuperior to all others in the laſt ſtage of that diſeaſe; and ſhe received inſtead of it the COMMON NIGHTSHADE. This might have been of fatal conſequence; for the doſe of the other is ſo large, that

an

an equal quantity of this muſt needs have been deſtructive. Both theſe abuſes roſe from errors of the ſame kind: We call the Frangula, Black Alder; and the Dulcamara, Woody Nightſhade. They were to blame who introduced this corruption of names; but that is too eſtabliſhed to be altered: the care muſt now be to make them underſtood. The knowing plants diſtinctly is the immediate buſineſs of thoſe who keep ſhops for the ſale of them; and the meaneſt ſervant who is allowed to officiate, ſhould be compelled alſo to learn their differences. Theſe are inſtances in which my particular care in ſeeing the plants, ſaved the lives of thoſe who were to have taken them: may we not juſtly think many are loſt where the abuſe is not diſcovered.

TENDERNESS for names prevents my mentioning ſome other inſtances: but they are needleſs, for the abuſe is in a manner univerſal. WHITE MAIDENHAIR has virtues greater than all its kind, but FERN is ſold conſtantly under that name; tho' the plant itſelf is common.

THE

THE true wild VALERIAN, eminently uſeful in nervous diſorders, was no where to be had, before the fraud of ſelling a wrong kind was ſhewn: but now the ſhops are full of it; phyſicians find its original excellence, and the drug has recovered its long-loſt eſtimation.

THE roots of the common double-flowered PIONY, are ſold for medicinal uſes: whereas the phyſicians direct only thoſe of the ſimple kind, called for diſtinction the Male Piony; and experience ſhews theſe alone have the full virtue. Nay it is not long ſince that in the place of the common DROPWORT, an eſculent root, the HEMLOCK DROPWORT was brought to one who wanted it; the moſt fatal of all the Engliſh poiſons.

WE ſee ſome plants of little efficacy, and others of different qualities from thoſe intended, are ſold under their ſeveral titles: nay ſometimes ſuch as are deſtructive. Under the name of BUGLE, an excellent ſub-aſtringent and balſamick, they ſell VIPERS BUGLOSS, a detergent of more power than

is generally known; for the BLACK HOARHOUND, an anti-hyſterick medicine, they ſell the WHITE HOARHOUND, a pectoral; for LITTLE CELENDINE, uſeful againſt the piles, GREAT CELENDINE, good in diſorders of the eyes; and for the true BLACK HELLEBORE, famous for many virtues, and no harſh medicine, they ſell always the Green-flowered BASTARD HELLEBORE, or the GREAT SETTERWORT; giving to infants, a violent medicine inwardly, whoſe proper uſe is externally for cattle.

BY this fault the ſucceſs of medicine, ſo far as it depends on plants, is rendered precarious; and from the ſame cauſe improvement in that branch is become impoſſible. In England the roots of GOLDEN ROD have been found excellent againſt the gravel; and thoſe of the LONG CYPERUS, a cure for dropſies, in the ſtages wherein that deſperate diſeaſe is curable: but tho' this knowledge comes upon fair authority, how ſhall it be confirmed? He who ſhall attempt to try the virtues of theſe roots, will probably find ſome other thing ſold in their place; and it will be ſuppoſed they have

have not the virtue which has been attributed to them, becauſe that root has not the ſame which ignorance or fraud has ſubſtituted in their ſtead.

FROM the ſavages of North America we have heard, that the root of MOUNTAIN AVENS will cure agues, in the manner of the bark; and probably this is true: for the ſame virtue has been attributed by many writers to the COMMON AVENS of our hedges. Perhaps it loſt this credit unfairly, by ſome other root being ſold for it: but where is the chance that it now ſhould be reſtored? From the ſame quarter of the world we receive intelligence of a LOBELIA, diſtinguiſhed by a peculiar quality in the cure of the venereal diſeaſe; and that the COLLINSONIA, a plant ſome years ſince received into our Gardens, and named from one who does great honour to this ſtudy, poſſeſſes virtues for the relief of the diſorders of pregnant women ſuperior to all other remedies.

THESE ſeveral plants we may raiſe in any quantities; and there is fair ground

to hope the art of healing may be greatly improved by them: but they muſt firſt be known; and theſe abuſes muſt be removed before 'tis poſſible we ſhould enjoy the benefit. The BARK itſelf came to our knowledge the ſame way; and we want other Medicines of ſuch Power: America may produce them; indeed there appears reaſon to believe it does: but unleſs the knowledge of that part of nature, whence they are obtained, be more regarded, there is little chance of our receiving the full benefit.

IF from medicine we turn our eyes to AGRICULTURE, the proſpect is the ſame: great advantages are in our reach; but if we neglect to underſtand the ſubjects, we ſhall loſe them.

ALL know how lately we are become acquainted in England with what are called the ARTIFICIAL GRASSES, plants raiſed by tillage for the food of Cattle; nor is there any one who diſputes the vaſt advantage our huſbandry has received from them. The number we have of theſe at preſent, tho' much

much larger than was known to our forefathers, is yet very limited, and the great benefit wou'd be variety. It will be eaſy to add, where ſo much has been diſcovered; and to apply to Britain what Linnæus has advanced in Sweden.

NATURE has not confined this ſource within narrow bounds: it is our ignorance alone which makes it ſeem ſo. We find that even in kingdoms farther north than ours, the peaſants have introduced many plants yet unknown to our farmers; and there are wild about our hedges others which might be cultivated to a vaſt advantage. The YELLOW MEDICK WITH WREATHED PODS, which grows neglected on our waſte grounds, is the new plant now cultivated ſo ſucceſsfully in Sweden: the farmers, indeed the whole country, are enriched by it, and the character under which it ſtands recorded in their publick acts is *Omnium omnino præſtantiſſimum pabulum*, ALTOGETHER THE MOST EXCELLENT OF ALL FOOD FOR CATTLE. There is no diſputing their teſtimony, who have ſo much experience, nor is there any reaſon

why we ſhould not ſhare the benefit in Britain.

THE KIDNEY VETCH, and LADIES MANTLE, eminent for the nouriſhment they afford; the firſt to ſheep particularly, the other equally to thoſe creatures and to cows; are wild in gravel-pits, and by road ſides: but they are unknown in our paſtures, unleſs by accident, and then unregarded; while they are both ready to grow from ſeed ſcattered among the graſs of hilly and barren cloſes; encreaſing the quantity of food tenfold; and improving it in the ſame proportion.

THE CHICHLING VETCH, which riſes in our damp thickets, is capable of giving the ſame benefit to wet marſhy lands; perhaps even to bogs: but no farmer knows it. Melilot, though not regarded for this purpoſe, wou'd, in the ſame degree, enrich an open paſture; and the BURR REED, of our ditches, might fill the wet moors with food for our horned cattle, for no plant is ſo readily eaten by oxen; nor is there any one more wholeſome.

AMONG

AMONG the articles uſeful in the arts, and objects of our commerce, it is not conceived what benefit might ariſe from a more perfect knowledge of their nature. Many of the moſt conſiderable are native of our own country; tho' neglected here, and ſought at a large price abroad: and we have others which might ſupply the place of ſome that are imported, perhaps to better purpoſe. To inſtance only among thoſe ſubſervient to dying.

THE French exceed us in their BLACK for cloths: and from many circumſtances there is reaſon to believe, they owe the advantage to a wild plant, as common here as it can be with them; it is the LYCOPUS, or WATER HOARHOUND: it has been early ſaid, tho' now neglected, that this plant yielded a peculiar and diſtinguiſhed black: and ſuch limited experiments as I have had opportunity to make, confirm it. 'Tis certain the French gather this herb carefully, which we ſuffer to periſh uſeleſs; nor is there any other purpoſe known, to which they can apply it.

WE

We bring Canary weed, a dry brown moſs from that remote country, to uſe in our red colours: but we have rocks and barren hills at home covered with a moſs of like nature; and as it ſhould ſeem of many times its value.

In Sweden red is dy'd with the roots of Squinancy Wort, yellow with the bark of Buckthorn and Black Alder; and red with the Saw-wort as we do yellow with the Saffflower; little unlike the other but in colour. All theſe are weeds, or wild hedge-ſhrubs with us: and why ſhould not every one have a fair trial? Perhaps the Society for the encouragement of Arts and Commerce, the beſt ever inſtituted in our country, may raiſe the ſpirit of this improvement by their premiums: but who ſhall aſſure the induſtrious mechanic that he has the right plants? 'tis ten to one againſt him, wherefoever he attempts to buy them.

That the Sick are frequently defrauded of their cure, and perhaps ſometimes deſtroyed by the abuſes of thoſe who deal in herbs, is moſt certain. But how ſhall they who

who ſell them be inſtructed better? or who ſhall ſhew the former what that MEDIC is; or what thoſe other plants he is adviſed to cultivate? Where ſhall the dyer learn what is the true SAW-WORT, or who ſhall tell him the diſtinction between BUCKTHORN and BLACK ALDER; the very berries of which laſt ſhrub, are often ſold for thoſe of the other, even to the apothecaries.

GREAT as the diſadvantages and miſchiefs are which ariſe from the preſent want of information; the remedy is eaſy. Galen preſcribed it in his time, when he ſaw the ſame neceſſity. It is the "teaching thoſe who are concerned; not by "ſlight words, or vague repreſentations, but "by the plants themſelves; raiſed in ſome "ſmall ſpot for that ſingle purpoſe." The learned may ſtudy them in books; but there is none ſo low in mind, who would not know them by the things themſelves, preſented growing to his eye, and explained upon the ſpot before him.

THIS ſpot ſhould be planted with every herb uſeful in medicine, in the arts, or huſbandry; and ſhould be open always, free of expence;

expence, and to all people: and there ſhould be ſome perſon preſent to ſhew what was deſired to be ſeen, and to explain what was neceſſary to be known.

FROM a ſpot thus planted, and thus calculated for plain utility, ſcience need not be baniſhed; nor indeed ought: becauſe upon its principles alone, are eſtabliſhed thoſe abſolute diſtinctions which prove the error or the fraud of common practice; and which would render all miſtake, and future deception, equally impoſſible.

THE plants raiſed for this ſervice, would appear as conſpicuous to the common eye, when diſpoſed in the regular claſſes of the modern botany, as any other way; and to the ſtudent they would be much more diſtinct, and plain in all their differences. Whatever could be done by a claſſical diſtribution of the ſhrubs and flowers in more extenſive plantations, may be executed even with theſe humbler kinds; and the purpoſes at once of the ſtudent and the publick, fully anſwered.

PLANTS would be known with certainty, from ſeeing them ſo diſpoſed, and hearing them clearly and uſefully explained. Great care ſhould be taken to ſhew diſtinctly the different kinds which ignorant cuſtom, or inconſiderate writers, have called by the ſame general name: there ſhould be ſhewn together, with each plant, what other ſpecies were moſt like it; and there might be added always in ſome near border, the thing uſually ſold under its name. This would be fixing the whole ſubject upon the memory, even of the unlearned.

THE nature and qualities of plants might here be pointed out in preſence of the objects; and their value ſhewn, not only ſo far as is known, but in thoſe farther advantages which might reaſonably be expected from them. The garden would be a kind of living herbal; in which it might be eaſy to explain, in a diſtinct order, what each plant was, whence it was brought, and how diſtinguiſhed from all others; what virtues it poſſeſſed, and for what ſervices it was proper. A leſſon too ſhort to load the memory; and too regular to be miſunderſtood. Thoſe who ſtudied the nature of

vegetation for the assistance of the arts of culture, might there see a vast variety of plants in every season, subjected to all rational experiments; manures of every kind might be experienced fairly; and the arts, the means, and objects of improvement in our husbandry, all shewn at once. The curious would have the advantage of seeing, in a single view, the various useful products of the several parts of Europe: and even more nice enquiries might be here turned to use: for it is not impossible that in many cases, what one plant does well, another species of the same kind may effect yet better. Why should we suppose that he who, probably by accident, made the discovery of the use of any plant, has always chanced to try the most effectual kind.

A LITTLE spot would answer all these purposes; and such a garden might be supported at a small expence. He wishes he had power to give the ground; who would not think it much to give his best endeavours for this publick service.

FINIS.