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A profitable instructi-
on of the perfit ordering of
Bees, with the maruellous nature,
propertie, and gouernemente of
them : and the necessarie vses
both of their Honie and waxe,
seruing diuersly, as well in
inward as outward causes:
gathered out of the
best writers.

To which is annexed a proper Trea-
tise, intituled : Certaine husbandly coniec-
tures of dearth and plentie for euer,
and other matters also meete
for Husbandmen to
knowe. &c.

By THOMAS HULL Londoner.

Imprinted at London, by
Henrie Bynneman.

ANNO. 1579.

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Balcony

The Authors out of the
which this Treatise is
gathered.

E 1072

- C. Plinius.*
- Aristotle.*
- Albertus.*
- M. Cato.*
- Iunius Columella.*
- M. Varro.*
- Palladius Rutilius.*
- Theophrastus.*
- Guilhelmus de Conchis.*
- Galen.*
- Paule Aegineta.*
- Cornelius Agrippa.*
- Hieronimus Cardanus.*
- And sundrie others.

B

To the worshipfull maister M.

Gentleman, Thomas Hill vvisheth all
health and felicitie.



S it hath beene, and is yet (vvorshipfull Sir) a trade commonly vsed among most men, to choose out from a greate number, some one, vnder whose name and title they may publishe their workes: Euen so I (following the steps of the learned, though in all other poyntes most inferiour) hauing finished this little treatise of Bees, and casting with my selfe to whome I mighte presente it, founde my selfe much bounden vnto your worship, both for your gentlenesse which I haue of late tasted, and also for youre friendship which I finde alwayes readie towards me. And therefore hauing none other wayes to recompence the least parte of youre curtesie and gentlenesse, thought it best to gratifie youre worship with such a simple gifte as mine abilitie will suffer me to bestow on such a friend. And although Sir this Treatise is farre dissonant from youre studyes, yet considering your earnest desire to knowledge and learning, and agayne pondering the pleasantnesse of the matter, thoughte this might be made a recreation for your grauer studyes. For when your mind shall bee searching for profound reasons, and oppressed with deepe cogitations, then taking and reading this little Pamphlet, it will bring a forgetfulnesse vnto your former weerynesse, and cause a newe delighte vnto your mind: For heerein may you see, first the maruellous gouernement of the Bees, through the onely instincte of nature, as in their obedience to their King, and other officers, in punishing the ydle loyterers, in cherishing the true labourers in theyr manner of fighting, with suche like a greate many, as it is wonderfull to reade, and almost vncredible to beleue: secondly, the liuely effectes and commodities that arise of theyr Honie and VVaxe. And lastly, howe profitable they are for common wealth, and howe necessarie for mans vse, I mighte heerespeake muche in the prayse of the Bee,

Aa.ij.

which

The Epistle.

which all I will omitte, seeyng onely myne intente is to shewe my selfe myndfull of your good turnes and benefites, desiring you to take this in good parte, whyche procedeth from a well willing minde. And I am sorie that at this presente I had none other matter more worthy to haue gratified your worship withall: but that whiche wanteth in power, aboundeth in good will. Thus troubling your worship no longer, I commit you to the keeping of the Almighty, praying him to increase in you all vertue and godlynesse, and to grant you the long yeares of Nestor.

*Yours most bounden
Thomas Hill.*



The Preface into the instruction of Bees.



Although (gentle Reader) I have not given thee anye labour of mine owne, but rather haue collected the sayings and writings of manye aunciente authors, yet I trust they shall be well accepted of thee without offence. For as he that setteth forth vnto the vie w & reading of all men such knowledge, as by his lōg study & experience he hath gotten, is worthy to haue his due reward of commendation: euen so he is not to be discōmended, who painfully reuoluing the bookes and volumes of many and diuers ancient wryters, reduceth thē into one little Treatise, for the commoditie and profyete of the simple and vnlearned sorte, for whose onely sakes I haue trauelled in the translation of this worthy matter, touching the right vsage and handling of Bees: a thing very rare, and selvome seene in the Englishe tongue, and yet verie profitable for a common wealth, and commonlye vsed among the poore husbandmen, though not in euery poynnt as they ought to be, yet according to theyr knowledge and experience. But I, to the intente that a further learning mighte be added to their skill, haue so trauelled therein, that I trust their knowledge shall be increased, & such as haue no knowledge at all, may be instructed without any other teaching. I haue ioyned this little Treatise vnto my booke of Gardening, for that most men do ioyne thē both together, as whē they place their Bees in their Gardens, whereas they may with lesse paine and easilier, gather of the sweete smelling flowers, their Honie, and Ware. And for all

The Preface.

these my paynes gentle Reader, I craue nought else of thee, but to giue me that which of dutie in a maner I ought to haue, for if thou doest receiue any commodity or fruite eyther by this, or by my other Treatise hereto annexed, whiche hath to name the Husbandly coniectures, with sundry rules of Physicke, then giue me the reward of thy good report, and friendly accepting of these two Treatises, and if not, yet accept mine endeuours in good part, which be meant to do thee good. And thus leauing (gentle reader) to trouble thee farther, I commit thee to God, who giue thee the furtherrance of knowledge, both in these and all other needefull artes.

(:.)



A necessarie Table setting forth the contents of these two Treatises.

These treated of in the first Treatise.

- W**Hy Bees are named to be crested or parted betweene, or as it were ringed or rather pleighted: what worke the swarme new gathered in the Hiue firste taketh in hande: and whether they may liue after their stings be gone. Cap. j.
- V**Who first taught the preparation and increasing of Bees, and found out the vse of honie. cap. ij.
- H**ow Bees do naturally ingender. cap. iij.
- O**f the vnperfit Bees, which men properly name drone Bees. ca. iiii.
- V**Whether the Bees draw breath, or haue any bloud in them. cap. v.
- O**f the great vtilitie and profit of the Bees vnto mans vse. cap. vj.
- O**f the care and diligence of the Bees. cap. vij.
- O**f the maruellous gouernement of the King of honie Bees, and of the obedience which they vse to hym. cap. viij.
- V**What kind of Bees be best, and rather to be chosen. cap. ix.
- V**Where the Hiues of Bees ought especially to be placed. cap. x.
- V**What things Bees do chiefly abhorre, and greatly hate. cap. xj.
- B**y what signes men may knowe when the honie Bees are diseased, and how men may cure them. cap. xij.
- V**What maner of person the keeper of the Bees ought to be. cap. xiiij.
- B**y what meanes the swarme come forth, may be preserued from flying away. cap. xiiij.
- O**f the Bees new settled in a swarme together, and taken and recovered againe. cap. xv.
- V**Which are the best and fittest hyues for the honie Bees. cap. xvj.
- O**f the cleanness and sweetenesse of the keeper of Bees, and howe hiues ought to be fenced about, and prepared within. cap. xvij.
- H**ow Bees lacking honie may be fed in that present neede. ca. xviii.
- H**ow the dead Bees may be restored to life againe. cap. xix.
- O**f the battell that Bees sometime haue within themselves. cap. xx.
- H**ow Bees lost, may be recovered and found againe. cap. xxj.
- T**hat the Bees sting no person coming neere to their hiues. cap. xxij.
- V**When and how the hiues ought to be gelded. cap. xxiiij.
- V**What the honie is, and how from the hiues the same may be prepared to vse. cap. xxiiij.
- V**Which

The Table.

- VVhich honie is accounted best. cap.xxv.
 Of the venomous honie, and of the wóderful hony of Creta. ca.xxvj.
 Of the miraculous worthinesse of honie. cap.xxvij.
 How profitable the vse of honie is in medicine. cap.xxviii.
 Of the drinke of hony whiche they call the Mulse water, or sweete
 water of the Romaines. cap.xxix.
 Of the drinke *Oenomel*, which is made of pure wine & hony. ca.xxx.
 Of the singular water of hony gotté by order of distillatió. ca.xxxj.
 Another maner of distilling the hony more at large taught. ca.xxxij.
 The maner of distilling a water of hony named the *Quintesséce*. ca.33
 The maner of drawing and making waxe of the combes. cap.xxxiii.
 VVhat waxe is best allowed, &c. cap.xxxv.
 Of the great comoditie and benefite of waxe in medicines. ca.xxxvj.
 Of that whiche is a stay of the combes, and made for a defence of
 Bees. cap.xxxvij.
 How to make waxe white. cap.xxxviii.
 How to make red waxe. cap.xxxix.
 How to draw a profitable oyle out of waxe for sundry vses. cap.xl.
 Another way of drawing the oyle of waxe most noble, and dothe
 maruellously help the cold goute, the sciaticke, the swelling of the
 legges, and all other griefes of a colde cause. cap.xlj.

These described in the other Treatise.

- C**ertaine Husbádly cōiectures of dearth & plenty for euer. cap.j.
 An euerlasting Prognosticatió of the state and cōdition of euery
 yeare, by the only caléds of Ianuary, writté by the anciét & learned
Lopol. Aust. & other for the comodity of the wise husbádmé. ca.ij.
 How to foreknow the state of the yeare by the only rising of the dog
 starre, out of the husbandrie of *Diophanes*. cap.iiij.
 Other profitabl instructiós, right necessary for husbádmé to know. c.4
 A most profitable rule for the preseruatió of mans health, through-
 out the twelue monethes of the yeare, after the minde of diuers
 learned men of the Vniuersitie of Padua. cap.v.
 Of the falling sicke on any of the weeke dayes, out of that auncient
 Phisition *Hypocrates*. cap.vj.
 Of those manifest signes, which declare raine to follow. cap.vij.
 Of those manifest signes which declare fayr wether to folow. ca.viii.

¶ The firste Treatise setteth foorth the
strange gouernmēt, propertie, and benifite
 of the Bees, vwith the commoditie of their Ho-
 ny and Waxe, whiche serue vnto many good vses, aswell
in outward as inward causes applied, gathered out of Pli-
 nie, Albertus, Varro, Columella, Palladius,
 Aristotle Theophrastus, Cardanus,
 Guilielmus de Conchus, Agrip-
 pa, and diuers other sin-
 gular Authours.

¶ Why Bees are named to be crested or parted betweene,
 or as it were ringed, or rather plighted. What work the
 swarme newe gathered in the Hiue, first taketh in hande,
 and whether they maye hie after their stings bee gone.
 Cap. first.



B LINE nameth Bees Cleft beasts, bicause of
 the diuision or parting betwēne of the head
 & shoulders: and Aristotle nameth thē plighted
 or ringed, in that their bodies are diuided with
 plights and rings. And most men know, that
 the Bees haue neyther sinewes, bones, fleshe,
 gristle, backe-bone, noz fat, but are only created of a certaine
 mixture, being a meane betwēn these, and hauing a very few
 intralles. And againe, no man needeth to doubt, but that the
 Bees be a kinde of beasts, greatly to be set by for mans vse, &
 for mans prouision, are nourished of the aire, passing throughe
 the diuided places, which they by great diligence and care pre-
 serue from being stopped, for as soone as they be stopped, they
 shortly after die, like as the same we may learne, when anye
 happeneth to fall or light into Dyle, which straight way after
 die, throughe the Dyle stopping then their powers. They haue
 and fly with foure wings, that they maye the better carrye in
 their bellies the stings of reuengement. For when two of thē
 strue together in flight, then do they hold and keep their stings

in their mouths by a greedy desire, or for eagernesse sake. Now after the seauen starres named Vergiliae, be once risen in sight about our horizon, then do they hyde the in their proper holes, so that they go seldome after abzoade, untill the Beanes doe bud, and if they happen to beginne at any tyme to flye abzoade when as a sayre daye moueth them sozwarde, then lacke they no suche dayes afterwarde, but occupy themselves. And firste they prepare and make their combes, which they fashon into apt houses, or rather celes of ware, after this they haue pong, and then beginne they to gather honny. They liue also the longer by hauing their stings, for that once gone, or taken away, they dye sozwith through the lacke of their intrailles, whiche they lose together with their stings.

¶ Who first taught the preparation and increasing of Bees, and founde oute the vse of Honny. Cap. ij.

The reporte goeth, that one Aristomachus first founde out and taught the increasing of Bees, whome Plinie writeth to be so earnest in the same, that setting apart al other affayres, he only studied night & day how he might best intreate and vse Bees, according to their kinde. But others ascribe this inuention to one Thasius, who (as they saye) deserued no lesse commendation, both for his diligence and skill among Bees: but this he specially followed in the field, and that farre from the Towne. And of this the common people (as by a nickname) no more named him Thasius, but Agrius, for his wilde or rather straunge life, whiche he then led in the field, whome Plinie also ascribeth to haue written a Booke of the increasing and multiplying of Bees. And Columella ascribeth this inuention, to the inhabitants of the hill (named Hymetus) being in the Countrey of Attica, for there (saith he,) was one Erichonius, who taught (as me write) the true and perfect ordering of the: Plinie againe ascribeth the inuention of Honny to one Aristeus a man of Athens. Diodorus Siculus in the fyfte Booke of his workes, writeth, that Curetes, a people of Creta, did firste finde oute

out the Honey, Macrobius ascribeth the same to one Saturnus. Others to the Thessalians. And many to Melissus, an auncient King of Creta, others to Nassus Liber Pater, thus writing, that Liber hath obtayned the renowne for finding out of Honnye.

¶ How Bees do naturally engender. Cap. iij.

The firste the Bees procede of Bees, by the actuall doing tege^r ther, after whiche they lay egges, sitting vppon them, as the Hens do on their eggs. And when they haue sit on them for the space of. xlv. daies, then do they hatch their yong ones, whiche yong (at the first) come forth, much like to white Worms, except the King, who onely as he is hatched, hath wings. At the firste time, one of them hatcheth five yong together, the nexte time fewer, and so fewer & fewer, vntill she commeth to one at a time, bicause the abundaunce whiche is in them, dothe in the continuance of time weaken. In the time of their sitting they make muche noise to gette them heate withall. And aboute the sides of the combes, be sometimes greater Bees bred, which mē for their sound & noise do properly name Trūpeters, and they also haue whole hornes, of which come the barbarde Bees. There be also other Bees bigger in body, muche like to the Kings, but they be ydle, and haue no King, bicause of the heauinesse of their body. All which kindes, Guilielmus de Conchis didde obserue in the Hyues of a certaine Consull of Rome, whiche properly were made of verpe thinne and cleare horne. Some write, that Bees are also engendred and bredde monstrously, and that contrary to nature, without the mutual coniunction, if that a whole calfe be buried in the earth, and there lye rotting whiles the wind blow out of the Weste, for by that meanes, as writeth Maro, doth the same breede Bees. And not vnlike to this doeth Cornelius Agrippa in his firste Booke de Occulta Philosophia, and Hiero. Cardanus in hys ninth booke of Subtilties write, of a rotten horse do waspes procede: of an Ass, Humble bees: of a Mule, hornettes: of the haire of a woman (hauing then hir motherly courses) Serpēts: and of Creuilles (the shelles plucked off,) Scorpions,

The right ordering of Bees

¶ Of the vnperfect Bees, which men properly name Drone Bees. Cap. iij.

The Drone Bees (as writeth Plinie) are vnperfect Bees, without King, and the least weary, yet be they verie heavy of body, and slow in doing their businesse. They also doe the seruices and trauels of the true Bees, although the right and perfect Bees doe rule and gouerne them, yea and put them forth most in their laboures, so that if they happen to be slow in their doings, then doe the right Bees punish them without pitie. Also these doe helpe the right Bees, so well in their workes as in their breeding, for y^e multitude of them, cause the more heat and warmth together. And howe muche the greater the multitude of them shall be, and so muche more will the increase come of the swarme. When the honey wareth ripe, then are the Drone Bees driuen forth, and the kinde also of these are onely seene abroade in the Spring time.

¶ Whether the Bees drawe breath, or haue any blood in them. Cap. v.

Now some affyrme, that the clouen beasts draw no breath, in that they haue not the fan of the hart, which is y^e light of lungs, for as they write, nothing without them can breathe. But Aristotle writeth, that the same is possible among Bees, hauing the King (although they haue no bladder) to breathe by their King. And the Bees haue no bloude, because they haue neither hart nor lungs: yet Plinie affirmeth, that nothing done by nature may be thought or iudged incredible: for the same is fully perswaded in wise mē, that the Bees haue a certain liuely moisture, like as the Cuttle in the Sea, which hath a kinde of ynke in it, and is as the iyce of it, with the whiche the Diers (at this day) do make their Purple colour.

¶ Of the great vtilitie and profite of the Bees vnto mans vse. Cap. vj.

Great profite ariseth by Bees, if they be set in a conuent and fit place, and that both carefully & wisely guided, as Plinie

Plinie writteth in his xi. booke, where he willet, that of al other clouen beastes, the Bees to bee principallie cherished, bicause to man vsbe they gather a subtile and wholesome myce, beyng very swete, and besides they frame by a maruelous skill and cunning, theyr cotages of ware vnto mans vsbe, that no woꝝkman (be he neuer so ingenious) can do the like. The profite also comming by them in a short time, if the weather hindereth not, is so greate, that they increase in a short time into manye swarmes, which swarmes againe increase others, so that the firste swarmes increased, they especially thrust forth from them in the moneth of May, or June, by whych meanes they cause a great increase of the. As Varro affirmeth the same of two head Gentlemen in Spaine, which only by the means of their Bees, gayned yerely tē thousand pouūd (but I rather thinke five thousand pounce, which also is very muche) yet here is to be noted, that the swarmes of fyre yeares olde, doe seldome encrease after other swarmes of themselves, although in ware they giue a great yelde and gayne to the owners.

¶ Of the great care and diligeuce of the Bees. Cap. vij.

¶ If certain Bees as the skillfull practisers do write, stand in y day time at the mouthes of y Hynes, diligently loking to their businesse, like warders placed at the gates of a Castell, that they maye so defend in safegarde whom they will within. In the night time they settle theselues to rest vnto the morning, until one of them by humming twice or thrice about, doeth so fyre them forwarde to flye out after the other. For if they happen to keepe themselves in the morning within the Hynes, the doth the same declare a tempest to insue that daye. But being a cleare and sayre morning, then do they flye forth, and returne againe to their Hynes, laden with the substance of the floures on their legges, for their businesse, and this especiallye doe the ponger Bees, so that the other Bees besides do eyther carrye the water in their bills, or on the soft moistnesse of the whole bo-
die. The elder Bees remayning still within, do also folow their

busnesse, as in diligētly laying vp, and aptly dressing the same, as they wold dispose their kindly foode. Such as be sluggish & not labouring they diligētly note, which for their sluggishnes, they bitterly punish to death.

And flying abroade in a mightye winde, they maruelouslye stay and guyde themselues, by waying their bodyes down with little stones, carped in their legges. They at the euening coming to rest, do make lesse and lesse noyse in the hyue, vntill one of them flyeth about, which by a like order as he moued them forwarde in the moorning, euen so by the same noyse and humming doth he procure them to take their rest, and to be all silent within the hieue. If the Bees happen to scatter in their flying abroade, then do they call and gather them together into a swarme, by the helpe of making a shrill sounde, eyther with pā or bason, or other loude cymball. They also followe their king whether soeuer he taketh his flight, who being wearie, and not further able to flie, they carrye hym betwēne them.

Wherfore that the kirk may not often attempte forth with the swarme, for feare of losing them, the skilful practisers wil, the wings of the kings be broken off. Whiche feeling himselfe thus depriued of his wings, will not after attempt to flye forth of his boundes, but remayning still within, will so cause the other Bees to abide continually with him, not leauing the hieue at any time after. They also haue counsels pziuely and rulers among them.

And Aristotle declareth the Bees to be the cleynest amongst all other beastes, bycause in flying abroade, they shed then their dung from them, leaste anye sauour or stincke of their dung be felte in their cotages or hoales. If these want honny at anye time, then doe they eyther kill, or driue quite away the drone Bees.

¶ Of the maruellous gouernement of the kings of honny Bees, and of the obedience which they vse to him. Cap. viij.

Nature hath not onlye committed hir lawes to booke, the which men may lerne by, but hath especially set forth conditions and properties, as for an example of the lyke, by the bees, whose kings for doubt of reuenging, haue by the p̄uidēce of nature no stings. Whereby is to be vnderstanded, that the kings ruling in power, though the lacke of their stings maye be by that meanes the slower to hurt, and offer reuengement. Yet some affirme the kings to haue stings, but they suppose them not to vse their stings. And of this Plinie maketh a doubt whether the king be armed as the other bees, or lacketh a sting which Columella putteth out of doubt, writing of the king that he hath no sting, vnlesse any perchappes thinketh that big head as it were, whiche the king carrieth in his belly, to be his sting, with the which at no time they vse to sting or hurt anye. This king only do Bees reuerence, and honoz him in such sort, that any of them is obedient and very ready at his bidding, to do whatsoeuer he assigneth them vnto. Also this obedience and seruice whiche they vse to their king, they do not the same for feare of punishment, but onely of a loue which they owe vnto him, Yet they punish one another in such sorte, that after their stings be lost, they dye forthwith. Aristotle writeth of two manner of kings, the one as he affirmeth to be red, which he iudgeth the better, the other king black of colour, which he confesseth to be lesser of body. yet howsoeuer the kings be, they are not withstanding far bigger of body, thā the honny bees, & haue a brighte and godlier head thē the other Bees, yet shorter wings. So that their king created among them, goeth not any time forth of the hie, without the whole swarme folow him. The king flying forth of the hie at anye time, the other folow him, in such sort, that eche couet to flie next him, & ioyeth to be seen of the king in office, and whersoever the king setteth him or resteth, there be other Bees placed, like strōg holds or castles about him. About the king also
be placed.

certaine rulers, which wayte vpon him by a dayly anchoritie. If anye happeneth, as writeth Plinie, to bzeake of the kings right wing, then from the king will not the swarme after departe, as the like was rehearsed afoze. Besides these, the Bees haue a maruelous order among them, if their king happen to die, for then they shal bitterly mourne for their king deade, and for the lacke of another, as such whiche cannot be guided and ruled without a king among them, and of this they be in continuall mourning. So that for the time, they carry no foode into theyr Hyues, nor flye not forth, but with a sadde bewailng and humming, after theyr King, they heape thicke togyther aboute the deade body, and vnesse another King increaseth by little and lpytle among them, they dye for hunger. Theyr King laboureth not, but as the other flye forth, hee in the meane tyme as an exhorter moueth and encourageth forwarde euerye one to hys worke, by his flying aboute in the Diue.

¶ What kinde of Bees are beste, and rather to be chosē. Cap. ix.

In this point, & for true knowledge of these, doth M. Varro describe those Bees to be best, which be small of body, and diuerse and round, bycause they be earnest in labour, and make a thyme honny, and better endure labour, and gather their honny on hilles, but the worser Bees gather their honny of the garden floures onlpy, whiche be somewhat long of bodye, lyke to waspes. Virgil doth especially commend the small Bees, beyng somewhat long, light, and clenly in their businesse, and glistering to golde. So that the greater and rounder Bee, is discommended of all writers. Although the fierce Bees are very ill, yet is their yzefulnesse, a note of the better Bees, whiche may easly be appeased, by the daylpe haunting among them, for if the keepers do often handle the Hyues, then do they become gentle in a short time.

The Bees also endure if they be diligently looked vnto, for

the space of ten yeares, and beyonde this age. no swarme can passe, although the keepers supplie the Hyues yearelye with yong Bées, in the steade of the olde deade, for in the tenth yere, in a manner, of the generall death of them, the vniuersall kinde of the whole Hyue is then consumed. And therefore, that thys maye not happen throughe all the Hyues in that place you must alwayes increase your Hyues with yong Bées, which diligently Hyue in the springtime, or beginning of Sommer, when as the swarmes be first and newe thrust forth of the Hyues, and so maye the number of your Hyues be encreased. Agayne some wyte, that in the Countrey of Pontus, the beste Bées be white, bycause they giue theyr yelde of Honnye troyce in a moneth. And Gulihelmus de couchis affirmeth the beste Bées to be aboute Thermodon in Capadocia, abyding in the Earthe, for that these doe buylde and make a tryple yelde of waxe, and giue also aboundaunce of Honny.

The foresayde Varro, affirmeth those Bées to be in healthe, which often kepe and be in a swarme together, that be clenly & can do their businesse and worke alike, and that quicke & light in the same, beyng neyther hearie nor foule of body, or appearing duffie, such also which be not ouerleane of body, and that out of any of their cotages no dead bees be carried thence, & forth of their Hyues. For all these notes do declare suche like Bées, to be both euill and vnprofytable. Palladius declareth, that the best Bées may be knowen by the fulnesse or emptinesse of their vessels, for if the Hyues be full, then those Bées doth he best comende, if the Hyues be nothing so full stuffed, those Bées doeth he greatly disallowe. And he also praiseth those Bées, whiche excelleth or passeth others in the loudnesse of humming, or do abound in the great haunte of the swarme, not broughte to the Hyues from farre places, so that there maye be such agreement, that they be not after feared awaye, with the newnesse of the aire and place.

¶ Where the Hiues of Bees ought especially to be placed. Cap.x.

Aristotle willetth the Hiues of Bées in the winter time to be placed in a warme place, and in the hottc season of Sommer, in a colde place. Palladius Rutilius in his firste Booke of husbandrie teacheth that the fittest place for bées, is that, whiche is in a Garden, not farre or rather neare to the owners house, whiche by that meanes suffereth not the windes, nor the accesse of thœues or beastes.

Whiche also nourisheth Trees growing on the Southside of the place, the better to defend the cold ayre from them, & cleare springs or faire riuer water running by. Columella willetth the Hiues to be set open toward the south, far from noyse, & haunte of people and beastes, neyther in a hote nor colde place, for eyther of these do molest and harme the bées. Also that the hyues stande in the bottome of a valley, or if not so possible, then placed neare to the valley, the better and easier for the Bées to bring their swode gathered to their hiues, and in anye case farre from stincking puddels, ditches dung-heapes, and such like filthy stinckes, which greatly annoyne and endamage the bées being neare hande to their hiues. M. Varro writing in his second booke vnto a huswife of the countrey, willetth hir also to set the Hiues close to hir house, and vnder some shed, & that far from the noyse of fozmes, whiche is mente from a groue or wood, leaste through the wodde or groue neare hande, the same may giue a sounding noyse, like to that whiche men commonlye name the *Eccho*, whiche sounde in verye deede the Bées do greatly hate. Virgil willetth bushie trees to be planted and stand right befoze their hiues, like as the *Peare tree* is, the *Beach tree*, the *Dake tree*, many kyndes of *Apple trees*, the *birche tree*, *Holy tree*, the *Jay tree* also, not allowed for his godnesse, but bycause it same giueth out muche bonny, and al other trees which beare no bitter floures. And he willetth these plantes and hearbes to grow neare hande, as the *Rosemary*, the *red and damaske Rose*, the *whithe Lillie*, the *Violets*, the *Flouredeluce*, the *Dorganpe*, the

Time

Time, the running Time, the Sauery, swæte Malozome, the Saffron floure, which coloureth the honny and maketh it smel swæte, the beane floures, the French beane floures, the Pellylot floures, the hearbe Baulme, the white Popple floures, the Bitonie floures, the Borage and Buglosse floures, and many other swæte and wholesome floures, not here named. But the Bore trée, the Masticke trée, the dogge or Gatten trée, or as some suppose the long and high chértrée they greatly hate, for hat tasting of the floures of anye of these, they die forthwyth. Maro wylleth standing waters, to be neare to their hives, & so shallow, & smal stoncs thzow into thē, may appeare about the water, & serue in stæde of brydges for their often recourse to thē, & that they may aptly stretch their wings abzoad on the stoncs, at the heate of the sun. The stādings for hives ought to be thzæ foote distant from the ground, & wittly stopped about with red clay, least vermine, and Myse cræpe into the hives, and spoyle the honny combes. The Hives also oughte to be set a little asunder the one from the other, least by lokng into them, you shake one another by cleaving together, and so disquiet the bees nerte to, which feare al manner of shaking least the same thzow not downe their weake wykes of ware. And the mouthes of the hives ought to stand somewhat stiper than the back part, leaste rain beating in, might not lightly run out again by their entry or hole. For remedy of y^e which, some make a cover ouer they^r hole y^e better to keepe off y^e weather & raine. And no manner of heate so much harmeth them, as doth the bitter cold, & for this y^e faces of hives ought to be toward the winter rising of the sun, that the Bees may so receiue the warme comfort, in y^e morning comming forth, & be the liuelier, for colde doth cause them to be sluggish, and for that cause their holes ought to be very narrow, that as little colde as is possible, may enter into them, & so narrow made, that the Bees within may receiue the encrease but of one Bæ at once, for by that meanes can neither the Bættl, bntterflie, nor great moath enter, to annoyne them. Besides for their often recourse home, Maro willethe to make two or thzæ commings into the hieue, somewhat distant asunder.

¶ What things Bees doe chiefly abhorre, or greatly hate. Cap. xj.

The bees, is that (named the Eccho) vngratefull or much displeasing, which as Plinie writeth, doth greatly feare them, through the straunge sounde rebounding againe, and the miste also doth muche molest and trouble them, besides the spinner through hir web hanging downe befoze the Hine, and the sluggish butterflie (which Plinie nameth dishonozable) that is two wayes pestiferous, as the one, when he spoyleth the ware, and dungeth within the Hine, and the other, breeding Magottes or little wormes within the combes. They greatly hate oyle, like as all the kindes of the other Bées doe, and a stinking sauoure, which evidently appeareth by that kind of herbe named Mugwozte, that they especially hate, bycause the same is of a stráže stincke to them. The hoznettes also of the like sozte creast, but bazer of kynde, they greatlpe feare, for that to the Hoznets the Hony Bées are a speciall fode. Also they be meate to swallows to sparrowes, and to all other small byzdes.

The frogs, heeides, they do greatly feare, which only lye in waite for them, both in Parishes, running springs, shalowe waters, and little ditches, and the like doe the Toades lye in waite for the Bées, whiche destroye manye of them. And the sheepe doe greatly trouble the Hony Bées, if so be they happen to fall or lighte into the Wool of theyr backes, out of whych, they cannot easlye wynde or gette themselves againe.

And if any happeneth to boyle or seathe Riuier Creaulles, or sea Crabbes neare to the Hines, and that the Bées feele the sauour therof, they die forthwith.

By

¶ By what signes men may know, when the honny Bees are diseased, and how men may cure them.. Cap xij.

This is a speciall argument and note, that the Bees, are diseased, if that they fly scattering in the swarime, if they keep not their proper colour, but be (as it were) of a strange and contrarie colour: if they also are ouer leane, if they appeare dustie and hairy, and that out of their cottages bee dead Bees carryed thence. When al these notes and signes are espied in the Bees, it is then highe time to seeke remedye for them, leaste helpe (by longer running) be sought too late. Therfore Palladius willetth to minister the kernels of Pomegranats, brused and mixed with swete and pleasaunt Wine, and the same powred into the channels or gutters of halfe canes, set nere to y^e mouths of hives, or honny, with Rose leaues well beaten togither, and so ministred to them, or the berries of the Saruice tree brused, and mixed wth Honny: for lacke of these helpes, a man may make a smoake of drie Dre or Cowe dung, whiche smoake muche delygtheth and comfourteth them, so that the same be often vsed vnto Harvest.

But if throughe the Maggots or little woormes of the Butter-flies the Bees be diseased, Rutilius then iudgeth it beste, to set a brasen Candlesticke, or suche like vessel, with lighte burning in it at Eueing, within the hyue, that to the same light (y^e Butter-flies gathering, and flying about) may so fall down into it, and be destroyed.

Aristomachus writeth, that the diseased Bees maye bee cured in this maner, if that all the corrupt combe within the hive be taken forth, and freshe fode anewe put in of the whole, and the hive after smoaked within. Also he affyrmeth, that Rosemarie sodden with wasser and honny togither, and beyng colde, poured into halfe canes or Elder stiches, made hollow like gutters, and the same set by the mouthes of the hives, for the Bees to drinke on, doth recover the Bees again. Hyginus affirmeth that

that eyther the Dreoz mans vyne set in like manner (as about saide) by the mouths of the hyues, doth also recouer the diseased Bees. Powe all these, and suche like muste the keeper of the Bees doe, whiche is both sober and chaste, and sedeth not vppon sowre oz tarte meates, noz filthy oz strong of saour, noz any salt meates.

¶ What manner of person, the keeper of Bees ought to be. Cap. xiiij.

THE Bees soz that they muche abhorre all filthy stinks and smells, Palladius willeth the keeper of them to eschewe diligently al strong and yll smelling sauoures, one also that delighteth to be chaste of body, and free from filthinesse, among these not bzeathing sowrely, oz of a stinking bzeath, not sweating, noz saouring of sweat, not one besides of wicked conditi- ons, oz suche a person as standing among the flight of the Bees, doth not earnestly moue and procure them to fly to hym, oz as one stinged endeuozeeth to desed himselfe from them, but rather as a flatterer among his acquaintance, and children, hath lear- ned to entreate, and please the Bees by a moze gentle manner. He also whiche mindeth to haue also in a readinesse the hives vnto his vse, in which he may receiue sozthwith the rude youth of the swarmes put sozth, which if they be not diligently preser- ued, they lye quite awaye at the full heate of Sunne. But how these hives ought aptly to be prepared, shall hereafter be taught in the sixteenth Chapter.

If the Doyre Bees, oz Bees without King, be ouer many in the Hiuie and that you woulde gladly ridde them sozth, then do on this manner: first take and plucke off the wings of one of those Doyre Bees, which lay oz put within the Hiuie, and incon- sistent the Honny Bees espying the same, will fall vppon the o- ther Doyre Bees, and both kill and drie them quite awaye.

¶ By what subtil meanes, the swarmes come forth, may be preferued from flying quite away. Cap. xliij.

BALLADIUS in his second Booke writeth, that y^e swarms of the honny Bees fly away especiallye in the moneth of June. But with vs the same oftner happeneth in the moneth of May, as hath bin noted by sundrye, diuerse times, especially if the yong Bees be sounde and hartie within the Hyues. Therefore the keeper muste diligently looke to the Hyues, and at no time be absent, especially when the yong Bees increase and abound in the Hyues, for if they be not then carefully looked vnto, and stayed by the diligence of the keeper, they all fly quite away. For such is the nature and propertie of the Bees, that as soone as the swarms of the yong Bees, are bred with the Kings, and that they be strong & able to flye away, then as disdayning the swarms of the olde Bees, they seeke the more gouernment. For that they be suche liuing things, that delight to rule alone, not seeking ayde and counsell of the elder Bees: and therefore do the newe kings flye forth, with the yong swarmes following them, which for a day or two before their flying away, remaine heaping together before the mouths of the Hyues, & right vnder the Hyues, so that by their comming forth, and heaping in suche order, they properly shewe the desire of a newe place, and be as yet contented to remaine thereabout, if so be the keeper prouide for them a place and an apt Hue. But if they haue no keeper to looke diligently to them, then as it were by an iniurie repulsed, they after seeke a newe place. That this may not happen, let then the warpe and diligent keeper, looke circumspectlye to the Hyues in the Spring time, aboute the eight houre of the daye, (when as the swarmes are not yet flowne away,) that he maye the diligenter marke and see the flyinge oute and conning in of the yong Bees.

Now the readinesse of y^e Bees in flyinge away, is knowne two waies, as y^e first is, whē for certaine daies before, in a maner at y^e setting of the Sun, they plentifully or abundantly gather on a heape righte before the mouth of the Hue, like vnto greate clusters

clusters of Grapes, and doe hang together on heapes one vpon another.

The other note is, that when they be minded within three daies after to flye away, they make as meruellous noise and furring to and fro within the hives at euening, as Souldiours at the Alarme within a Castell, whiche you maye easilye knowe, (this readinesse of them) if that you lay your eare to ech hīue. And when some of the Bees are flowne away, then doe those waite for the others, vntill the whole swarme be come together. That the Bees fly not away, Plinie teacheth in the .xj. Booke of his Naturall Historie, that the hives ought to be anointed about with y^e iuyce of y^e herb named Balme. Also other affirme, that the swarme to settle and stay againe through the onely throwing of fine duste on them, if so be the same be throwen on light, and that ouer the bees. Some beside affirme, that the Bees will not flye away, if that the dung of the first calfe of any Cowe, be smeared about the mouths of the hives. Plinie writeth, that by the only binding of the fresh white Vine (running in hedges) rounde about the bodies of the Hynes, it stayeth the swarme from flying away.

¶ Of the Bees newe settled in a swarme together,
and taken or recouered agayne

Cap. xv.

When the Bees are nowe in a tumulte in the ayre, by throwing fine earth on high ouer the Bees, or ringing a basen or ketle, they be with the shrill sound made astonied, that they maye the sooner settle downe neare to the keeper, whiche if the same happen to be on the branch of a tree, or on a graft or yong set, then with a very sharpe sawe, gently sawe that off, and laye it on the grounde, and speedily set a Hīue on the same prepared for the purpose. For by that meanes (without doubt) will the whole swarme flye vp to the toppe and head of the Hīue. Yet it often happeneth, that they doe not wholly cleave on a heape to the bzaunch of a tree, but to the stocke or body of the tree, whych

by that meanes muste needes be cutte by a greater force, so that not able to be recouered by this meanes, the swarme muste be quickly swæpte off, either with the hand, or with a Gose wing, that they may so fall together into the hieue. If the swarme happen to be clustred together on the top of a tree, so high, that they cannot be climed vnto, to take them downe, then after the shaking of them into the Hiae (turned vpper) either with a pole or high forke, the hieue must speedily be turned down to the earth. And if they be not thus taken or recouered, yet if the King shall be still in the Hieue, then doth the swarme fly in againe, if he remaineth not, then wil none of the swarme abide in the hieue, but flye forthwith vnto the former place. Wherefore, that they may be moued to abide, you muste then sprinckle the hieue with water and hony together, and couer the same within with green fennell, or rather the green fennell, or some such swæete herbe, annointed a little with Hony, and after set at the Euening in their proper place. For the hieue in the day time, after the recouering thus of the Bæes, may not be stirred vntil the Euening, that the Bæes so quietly resting all that night, may in the morning leisurely go forth. But for thre daies together in a manner, muste the keeper dayly looke, whether the swarme keepeth belowe in the Hieue, so if it doth, then are the Bæes purposed to flye awaye. And if none of al these remedies, may yet moue the Bæes to stay and tarry in the hieue, then besmoke the hieue with flare, and they will after enter in and abide in the hieue. Which so staying in the hieues, set at the Euening in his proper place. Here learne a farther instruction, that if the swarme of Bæes cannot be gathered and recouered together all at one time, then may you gather the swarme at two or more times together, and alwaies put eche part gathered vnder the hieue. If it happeneth that you haue gotten the King, with a part of the swarme, then will all the others sone come to hieue (without further trauaile) of their owne accorde. If the Bæes also be entred into the hollowe of a tree, then to the hole, whiche they vse to go in and out at, as their proper dore, sette a prepared hieue, and beneath their hole, neare to the roote and bottome of the hollow (as you can

gesse) boare another bigge hole, that ye may wel put in a smoke of Brimstone to them, whiche may so cause all the Bees to fly out at their hole into the Hiuie, set ouer the mouth of it. For no better deuise or inuention can be had in this matter, than by such a smoake made. If the same hollowe tree be so thinne, that it may easily be sawed asunder, then with a sharpe sawe lette that hollowe parte be cutte asunder, bothe aboue and beneath, and after couering it with a cleane sheete, carrie the swarme home, which at euening couer with a newe Hiuie spzynckled with water and honny mixed together. For so they will tarrye the willinglier, being all shaken forth of the body of the tree, and couered with the Hiuie. Besides the hearbe Bugworste (whiche the Bees by a naturall hatred do abhorre) doth chase them with the onely smell from place to place.

¶ Which are the best and fittest Hiuies for the Honny Bees. Cap. xvj.

WALLADIUS writeth, that the best Hiuies be those, which be made of the barkes and light cozke of trees, because they be neither too colde in the Winter time, nor too hote in the Sommer. And of this, those Hiuies whiche be wroughte and made of the small Oker or Willow tree, or of the Wine Wickes knit together, or Canes cleft in the middes (whiche be of like condition to the barke) wroughte close together, and stopped close aboute wyth flockes and clay, tempered together with water and salte, may aptly serue, if you will. But if neither of those fashioned Hiuies like you, then may you make the Hiuies of the woodde of a hollowe tree, or of light bourdes made square, and stowppng somewhat afoze. The worste Hiuies be those, which be made of turkes or earth, because they be ouer hote in the Sommer, and ouer colde in the Winter. There be other two kinds of hiuies, as the one made of drie hard Cow dung, and the other of tiles. Of whiche the one doth Cellus rightly condemne, because the same is so lightly burned, and the other he alloweth, althoughe he dissembleth the speciall commoditie of it, because the same,

if neede

if neede requireth, cannot easily be removed and carried into an other place. And among these, I suppose our forme of Hives here in Englande, are not altogether to be disallowed, although they be in like daunger, to be easily burned, as the other Hives aboue taughte, in that they be made with strawe. But to be brieve, for a greate swarme you ought to haue in a readinesse a greate hive, and for a small swarme a little Hive. And the Hive also oughte to be a foote and a halfe, or two foote high, and in breadth aboue two foote and a halfe, or somewhat larger. Having besides two very small and narrow holes, somewhat asunder, and so little ought the mouths to be, that neyther Beetle, Butterflie, gret Moth, Humble Bees, Cuet nor Pouse may enter in, to spoile the Honny combes. Some suppose, or rather affirm of experience, that the Bees are delighted with this closenesse, in that they moze ioy to do their works and businesse in the darke, than otherwise.

¶ Of the clenlinesse and sweetenesse of the keeper of Bees, and howe Hives ought to be fenced aboute, and prepared within. Cap. xvij.

The keeper of Bees which mindeth to handle and loke into Hives, ought the day before to refraine the veneriall acte, not a person fearefull, nor comming to the hive with unwashed handes and face. And one that oughte to refraine in a manner from all smelling meates, poudred meates, fryed meates, and all other meates that doe stinke, like as the Leakes, the Onions, the Garlike, and suche like, whiche the Bees greatlye abhorre, Besides, to be then swæte of body, and clenly in apparell, minding to come to their hives, for in all clenlinesse and sweetnesse the Bees are muche delighted. Nowe thus prepared & in a readinesse, open þ hives first of the Bees, about the. viij. or x. day of Aprill, being then a cleare & warme day, & purge the hives of all such filth which be gathered in them all the winter before, like as Spiders webs, which oughte especially to be wiped awaye, bicause they corrupt the combes, not with hands, but wth a gorse wing, the same ought to be done. After that, the Hive oughte to be

be smoaked with Dre or Colwe dung, for in that (as it were, by an affinitie of the kinde) do the Bées greatly delight. The little wormes also, whiche some name Muggots, that bréde in the combes, thzoughe the blowing of the Butterflies, and also the Butter-flies ought to be killed and purged oute of the hie. If the combes happen to fall thzoughe infection or cozruption in them, then make a smoake with the drie dung and marowe of an Dre or Colwe mixed together, that the saucour may go vppe to them, whiche for that time will cure the weake combes, strengthen the Bées, & cause thé to worke the lustier afterward. And from the beginning of May, vnto the last of June, y hives ought then to be diligently looked vnto, that the pong swarmes flye not away. Also from the tenth of June, vnto the tenth of August, the hives ought to be opened now & then, & to be smokt with such like as afoze is taught. Whiche althoughe it be grievous for the time to Bées, yet the same is very profftable, and strengthneth them. And from the beinyng of the Dog dayes, vnto the eighteenth of September, ought the Bées to be carefully looked vnto and defended, from the violence of the Hornet Bées, which often awaite befoze the mouthes of the Hives, to set vppon and eate the Honny Bées. Howe the keeper in a fayze sunny daye, ought to clenfe the Hives of al maner annoyances as befoze is taught, and diligently to stop the chincks, or clefts about, sauing the mouthes of the Hives, with Dre dung & clay mixed together. And this ought to be done, for two or thre daies befoze the change of the Mone, the better to defend the Butter flye and others, from créeping in. The Hives besides ought to haue two bigge stikes cleane scraped, and running a crosse from side to side, and sprinckled rounde about within, and swéte and pleasant wine, or else the stikes to be harde rubbed ouer, with the gréene branches of the Fennell or other swéte smelling herbs. or w a little honny & leaues of the Pere-tree, together, or with the branches of the herb Lime flouring, or Sanerie, or Mairozame, or the hearbe Balme, and Honny together. Some annoint the stikes and hie within, with the swéte creame of the newe Cowe milke, or with water and Honnye sodden together,

together, and that sprinkled aboute within the Hyue, that the Bees maye be the rather and soner moued to tarrie and dwell still in the Hiuies.

¶ How Bees lacking honnie may be fedde in that present neede. Cap. xviiij.

Because the boysterousnesse of the ayre doth sometimes constraine the Bees to abyde in their hiuies, and that they may not only feede of Honny, but at the rysing of the constellation (named Vergiliz) they maye be fed and cherished, and the same done in this manner without greate cost. As firste, if you take the number of ten figges, seething them in sixe pintes of fayre conduite or spring water, vnto a pynte wasted, whych after set the one side of the huiue within, laying many smal stikes a crosse ouer y^e Lycour, that those may serue instead of bydgs, the ayter for them to drinke of the Licour, without drowning in the same. Others wyll soeeth Honny and water together, & the same to be poured into dishes set at the one side of the Huiue, in the whiche they will to put fine carded woll, that the Bees maye the better drinke now and then, and be not cloyed with to much drinking of the licour, by lighting into it. Others take figs & raisos beating the together, and after boyling them in the swete lycour named Cuyte, they poure into dishes, covering y^e same with Dafen Strawes a crosse. Others also will to take a little Honny, putting into the same a fewe Date cornes, that the Bees lighting on them, may so kepe their wings from wetting in the licour. Now all these meanes may well suffice to cherish and feed the bees in the Winter time, lacking then foode, beyng set neare to the mouthes of the Hiuies. So that if a longer hunger oppresseth them, then with the hiuies fast by the entring in, set little gutters made of halfe canes, or greate elder stikes cleft, into which poure of the swete licours aboue taught, for by that meanes may they be wel recouered and strenghtned in the deepe of Winter, when their foode fayleth them. Some wil to put fresh birdes cleane drowne, or the fleshe of a Henne fine-

By thzed into hives, so; the Bees to fede and sucke vpon in the deepe of Winter, & the fine feathers also they will to put into þ Hie, that they may giue then a warmth to the Bees lying in them. And others also will to put the meate of roasted Chickens into their Hives, to fede and sucke vpon, and not the boanes withall, least the sauour of the bones after the meate eaten off, might annoy the bees by lying still in the hives, in that they so greatly abhoze all sowze and stinking sauours. Also these kinds of flesh ozbered (as aboue sayde) may well serue the Bees in another drie Sommer, when as the most floures are then faded oz quite gone away. Here note, that in the Spring and Sommer time, the be-hives ought to be loked vnto thzice in the moneth, gently smoking the Bees, to cense the Hives of al maner filth, and to sweepe forth the woymes. Also Menecrates willetth the keeper of Bees, to kill the king blacke of colour, whiche by hys malice disquieteth the other king, and cozrupteth the Hie, in that he flieth out alone, oz with a company of þ bees folowing. So by that meanes (as Virgil wzteth) shall the battel of Bees be stayed. Palladius wzteth, that the swarmes be increased in the moneth of May, and that in the outmost sides of the combes be the dzone Bees bred, which ought to be killed, in that those do muche disquiet the rest of the swarme. The Butterflies also do abounde, which he willetth diligently to kill, for their greate annoyauce to the honny Bees.

About the beginning of Nouember ought the Hpyes then to be cleared of their filth, so that at the Winter following they may neyther be remoued noz opened. And this may not be done but in a warme sunny daye, the combes maye not be touched with hands, but with the feathers of a stiffe gorse wing, oz such bigge soule. After that to stoppe the chinkes round about wyth Dre dung and clay finely laboured togttber, and to lay strawe thicke ouer the toppes of the Hives, the better to defende the Bees from the cold and tempestes.

¶ How the dead Bees may be restored to life
again. Cap. xix.

The keeper of bees ought to foresee and take heed, that the Bees perish not through ouer great heate, or ouer mighty cold. If at any time by a sodaine showre in the seeking for foode, Bees happen to be beaten downe, or nipped wth a sodaine colde (which seldome so commeth to passe that the Honny bees are so deceyued,) that harmed with the droppes, they lye grouelng and flatte on the earth, as dead in a manner, then gather the Bees togyther, putting them into some vessel for the nonce, which after set in a warm chamber or Parloure, & couer warme ymbers, beyng somewhat more than hote, on the Bees, whiche gently shake with the ashes, but in suche sorte that you touche them not wth your hande. And setting the Bees in the sunne, and neare to their hives, they will after recouer, and flie again into their cotages.

¶ Of the battel that Bees sometime haue among
themselues. Cap. xx.

Vergill writeth, that the Bees sometimes minding to fighte, do hastily brust out of the Hives, and as it were in ciuill battels among themselues, do fight lyke strangers one against the other, & smite eagerly in their fight one at an other. If so be one hyue hath especially two kings bred, by in the same, which very well may be knowne, when as the bees clustered and heaped togyther, doe represente or represses as it were the forme of two bearded hangyng downe. Now they readinesse to fight is knowen, when in the ayre is heard a greate sounde and noyse among the Bees lyke to the manner of Trumpets, whyles they fiercely and cruelly fighte togyther among theselues, & in this battell they glitter with the wings, sharpen the stings with their beakes, beare forth their brestes, and about the king they gather and swarme. So that they shoute wth great

great noyse, flying and dashing together, and that in heapes and rounde companies mixed or ioyned together, and greate is the noyse made among them. And to be shorte, in this strong and eager battell, many of them fall headlong downe, and that thicker then haile stones to the ground.

The kings themselves in the meane time flying in the middle frontes, doe fight with a fierre courage without themselves, and they also are seene to flie hither and thither among thicke heapes and swarmes of the Bees, (like as valiaunte Captaynes are wont to do in the time of a battell) with their glistering wings and beakes, beating downe of the swarmes, here & there and on eche side of them, of both partes. So that of themselves not giuing order this eager battell, untill the one part be forced to turne the backe to the other, and flye away with expedition. Wherefore if this doubtful battell in the meane time may be ceased and quieted betwene them, the wise practisers will that the keeper of Bees, do stave and appease this boyle of the, by the casting of fine earth over the Bees, whiles they be thus fighting, which (as the wise affirme) of experience doth forthe with pacifie the great stomackes and courages of both partes. But if this auayleth not, then with honny and water sodden together, or rapsons in like order, or with any other sweete licour sprinkled on them, is their furie appeased, whiche doth as it were with the pleasaunt sweetenelle, quiet the irrefulnesse of the warrours, and wyth the same in this controuersie they are maruelously appeased. If neyther of these remedies do yet preuaile, then let the keeper marke diligentely those Bees whiche fyghte in the fronte, and bee mosse eager Captaynes, that hee maye kill them with expedition, for by that meanes, and with the other remedies aboue taughte, maye the battells and fight of the warrours be throughtly ceased.

Now after the Bees are thus quieted, and the swarme settled rounde on some greene bowe nexte hande, then marke whether the whole swarme hangeth downe like a cluster of grapes, whiche so seeing, declareth there to bee eyther one king or two, by godd agreement reconciled, whiche let alone

on such wise, vntil they flye backe vnto their proper home. But if the swarme shal be deuided into two or many round clusters, then iudge that there be yet manye Captaynes leste, and that their yre is not ceased: and in those partes, where you especially see the bees to cluster mosse thicke and rounde togyther, there diligently seeke out the Captayne. Yet annoynt your hand befoze with the iuyce of the hearbe Waulme, that touching or handling the Bees, they flye not hither and thither, after which put in your fingers gently, and seuering the Bees asunder, seeke diligently among them, vntil you finde out the authoz and procurer of the battell, whiche you oughte likewise to kill. Vergill writeth, that the kings sometimes flye forth for a baine delight, to sport them flying in the aire, which you may easily stay and let, if that you pluck of the kings wings, that he cannot fasterward flye.

¶ How Bees, may be recouered and founde againe. Cap.xxj.

If it so happeneth that bees are flown away, & that you be in doubt whether they be lodged neare hande, or farre off. Palladius doth instructe and teache many goodly wayes to finde them againe. First he teacheth to take red leade, or red Oker infused in water, or any other colour, staying, and to carry the same wyth you in a little shallow dishe. Vnto suche a spring or running water as the honny bees haunte, especially in y^e moneth of Aprill. And there sitting downe, awayte the comming of the Bees to drinke, which after they be come, and there drinkyng, stayne in the meane whiles such bees, with your russh coloured redde at the ende, as you may well retche with the same, sitting yet still, and watching the comming againe of those Bees marked to drinke, whiche if they shortlye returne, then is it an euidente note and token, that their lodging and cottages be neare hande, but if those Bees are long befoze they returne and come againe to the place, then maye you suppose and iudge them to be farre off, and the distaunce you may gesse, according to their

long carrying and sore coming againe. That you maye easly fynde the place where the Bees lodge, whether the same bee farre or neare hand, Palladius teacheth the same wittily, in this manner.

Ifi. Lett he willethe to take one whole ioynt of a bigge cane or Elder Sticke stopped at y^e one end, and the other end left open, to annoynt within, with a lit. le honny, whiche laye neare to that spring or running water, that the Bees daylye haunte vnto.

When Bees resort to the same, and that certayne be entred within the quill through the sauoz thereof, then stop the hole with your thumb, letting one of y^e Bees after ward to flye seyth, whiche dyligently marke, and follow that way it flyeth, for it will shewe you part of the way to their home. And after you can see the same no further, then quicklye set forth another be, whose flight in like manner marke, and followe after, for that it maye also shewe parte of the way vnto their home. And so let lie the bees by one and one, vntil they bring you vnto the place of the swarme. Do we if the same place be deepe in the earthe, then with a smoake made epyther of drye flaxe or Brimstone, drive y^e Bees out, and when the swarme is come forth, then ring on a bason or Syll panne, for being by and by feared with the Syll sounde of the same, the swarme epyther lighteth on a yong tree, or on the opener bowe of a bigge tree, which so sounde out, couer ouer with a hieue prepared for the nonce. But if the swarme be placed in the hollowe of a tree, and hauing bowes, or in the stocks of the same tree, then with a betye sharpe sawe (if the meanes of the same will giue leaue) cutte it a sunder. And in such sort, that the parte emptie aboue the bees be first cut, and the parte beneath in which it seemeth the Bees to be lodged, to be like cut a sunder, and the stocks thus cut a sunder, at both the endes, couer with a faire shate, leasse any large cleftes appeare after the cutting, whiche also annoynt with honnye, for the better staying in of the bees, and after carrie the same home, which place by pour other hieues making smal holes in y^e same,

foz they flye in and out (as afore was taught) in the ordering of the other hives. But it behoueth the diligent searcher, to chole the morning times for y^e finding out of Bees, whereby you may haue the space & libertie of the day before you, to finde out y^e resort of Bees. For by looking late after the, it falleth out so, that although the Bees are neare hande, yet because they haue then done their busie and careful labour, they flye no longer abroad to seeke foode, nor yet resort to drinke.

Throughe whiche it so commeth to passe, that the searcher after Bees knoweth not the n^o howe neare, or far off, the swarm is from the spring or running water. Some take the rube of the herb Baulme in the Spring time, and amboint the same round about the hive, whereby the saour of the ioyce may cleave and abide on the vessel, whiche afterwarde being sayde within, sprinkle aboute with a little honny, setting the same hive downe neare to the wodde or groue of trees fast by that spring or water rüing by it, and after the same be filled with a swarme, carry it gently home. Yet doeth not this like, but in such places where the swarmes of Bees do abounde, for that oftentimes it so hapneth, that vnlesse the hives be dailye watched, that the goers by do take them away. But to lose sundry hives, gretly hindzeth not, so that you may in the mean whiles enjoy one or two of them full.

Howe hitherto hathe bene sufficientlye taughte, suche remedies and helpes, as necessarily serue, to the taking, and recovering of Bees losse, and otherwise to finde oute straunge swarmes.

¶ That the Bees sting no person, comming neare their Hives. Cap. xxi.

Plinie in his twentieth book writeth, that the herb Sperage, bruised and mixed with oyle, and annoynted with the same, both defende the person from being stinged, by comming neare to their hives. And in his xxvii. booke he also writeth, that

¶ Crisostomus writeth, that

if any happeneth to be stinged by a Scorpion, that he shall neuer after be stinged of any Wée, but yet being stinged, he teacheth to drinke the iuyce of Hearbe-grace and Rue mixed with wine, and to lay the leaues also in plaister forme on the stinged placed. In the 21. booke he writeth y^e like, that bees stings are by nature venomous; against y^e which he teacheth to take & vse the iuyce of Malloves, or the iuyce of Quie leaues, and to annoint eyther of the two, on the stinged places, as a souerain remedy. And in the 23. booke; he teacheth wyne for a remedy, as boyled with bay leaues, and after drunke. In the 24. booke he teacheth to take a drop of that molten, whiche the honny Wées make at the entrye of the Hiue; to be a like remedy, as of the water Bezoar to be vled against venemous bittes. Auicen in his seconde rule teacheth, that the decoction of the March Malloves wyth vineger or wine, and the same anoynted on the stinged places, to be a perfit remedie.

Whiche also in his south rule affirmeth, that the Honny Wée hath like dispositions to the waspe, saying that they leaue their stings behinde the: wherfoze for remedie of y^e wasps, you may vsethose which we haue afoze taught againste the stings of Wées.

¶ When and howe, the Hiues ought to be gelded. Cap. xxii).

Plalladius Rutilius in his first booke teacheth, that the hiues of Wées ought not to be gelded, befoze you will consider and see whether they be ripe, vnto the comming of the true Honny, whyche in a manner (as hee teacheth) commeth to vse in the moneth of June, or as others affirme, in the ende of Auguste, vnto the midle of September.

Now there be certaine notes and tokens, by which we trye and sende out the ripenesse of them, whiche be these, firste if the hiues be ful, then do the Honny Wées bring forth the ydle drone Wées out of the Hiues, and therelis also heard withina small or thyll humming of the Wées for that the emptye cottages of
the

the combs, as they were hollow buildings, do receiue a sound & noise, procured then bigger, so that when there is hearde a big & hoarse sound of þ̄ humming of them, then is it not yet meet to geld þ̄ combs. Varro writeth, þ̄ it is the time to gelde hives, when as you see within, þ̄ the B̄es h̄ag clustring round, & þ̄ the holes of the honny combs be covered ouer, as it were with thin caules, for then be they full of honny. Now the day of gelding the hives ought to be done timely in the morning, when as the B̄es are astonied throughe the colde aire, and not done in the heate of the day, when they be procured to fly forth of þ̄ hives, and being then very angry, to sting those persons which come to the hives. The maner of gelding þ̄ hives is on this wise, first stop the holes of the hives, that the B̄es passe not forth, with grasse or some other hearbe, after that putte vnder fine linnen ragges, or strawe, making a little smoake with the same, which the smoake so flying vpp, causeth the B̄es after to bzeake & leaue their clustring togither.

After these, with two instruments or toles of yron, made for the only purpose, of a foote and a halfe long, or rather somewhat longer made, of whiche the one ought to be a long knife, and broade of either side the edge, with a haste, and hauing a crooked file on the one end. The other at the beginning plaine, and very sharpe, wherby with this the combs may the readier and quicklier be cutte downe, with that other instrument scraped cleane, and whatsoeuer filth falleth off, drawne awaye, and throwne aside. But where the hieue of the hinder parte, or parte behinde, shall haue no voide place emptie, then make a smoake (as Varro commaundeth) with Galbanum and drie Dre dung, which ought to be made in a earthe fuming pan, filled with quicke coles, or a pan of earth with a narrow mouth, and a handle like to it. So that the one part oughte to be sharper or narrower vppward, by whiche the smoake may passe by the little holes, and the other parte where the coles are, broader, and with a large mouth of the one side of it, by which the person may blowe the coles: Nowe suche a pot when it is set within the hieue, and the smoake stirred vpp to the B̄es, whiche

by and by not quieted with the saour, flie vnto the foreparte of the hieue, & some times flie quite oute of the hieue, wherby any may looke into the Hieue without harme, in a maner, to the person. If there happen to be two swarmes in one hieue, then are there also two kindees or soymes of honny combes. For euery company of Bees in agrément together, doth fashion & frame the ware, as liketh them best. But all the honny combes being hallowe wrought, and a little cleaung to the sides of the hieue, do hang; wherby they may not touch the floure or bourde, for that other wise it causeth the swarmes to flie quite away. Yet the soyme of their ware is such, as the condition of their cottages is. For that some Bees doe make both square and rounde spaces, and some long, so that eche frameth, as it were certain formes in the combes, according to his kinde. So that the honny combs, are not founde alwaies alike in fashion, but these combes of what soyme soeuer they be, are not to be taken all out of the hieues. For in the beginning of Haruest, whiles the fieldes yet flourish, take a fift parte of the combes, but after, when Winter is at hande, then leaue a thirde parte behinde.

Palladius willeth the hieues to be gelded in the moneth of October, and that a third part be left behind. Yet consider, that if there be stroge, to take the moze: if but a meane, then the halfe part of that leaue for the winter time: if the cottages appeare but halfe full, then take nothing away. But Varro teacheth, that a thirde part of the combes maye be taken away, & the other parte left for the winter, although the combes be ful of honny. If you feare (saith he) a sharp winter to follow, then take nothing at all: of the same mind is the learned Vergil in this. But the expert practisers of our time in such matters, do affirme, that the honny ought to be taken awaye but once in the yeare, & this in the end of the moneth of August, vnto the middle of Septēber. But the ware being corrupt, then, both before and at any time maye be taken forth of the hieues. Also as touchiug the honny which the Bees giue, whether you maye take awaye either little or much, must be considered according to the smalnesse or plentifulnesse of the honny being in the hieue. And according to the smal-

nesse or greatnesse also of the swarm to be nourished, so that aboue the fourth part of the combs may not be taken from any hieue. Yet this order may not be vsed alike in countries, because a man must consider the dealing with the hieues, according to the multitude of floures, & plentifulnesse of swede for the Bees. If y^e warie combs hanging down do run into a length, then with y^e same yron toole which is made like to a knife, being oftentimes dipped in water, that the ware cleaue not to it, nor that the combs remaining may be harmed, & the hieue holde on the one side cut the combs away. After this, put both your armes into the hieue, gathering together, and taking forth the combs. But if the combs hang ouerthwart in the hieue, then must you vse your scraping yron, that the combs of the further side thrust together, may so be cut away. Also the old & corrupt combs are to be takē forth, the whole and full of hony to be especially left. And if there be any yong Bees in them, those keepe or preserve to increase the swarm in that hieue. After that, carry all the floze of the hony combs into one place, whereas you mind to make the hony, & keep diligently the sides and edges of the hieues round about, that none of the Bees may enter in, which for the hony and ware taken away, do edgerly seeke after, and finding the same, do vtterly consume the same if they may.

Wherefore, of the former matters must a smoake be made, & that (at the entry) or mouth of the hieues, that the Bees assaying to fly in, may through the smoke be driuen to flye backe againe. Now after the hieues be gelded, and that anye shall haue ouerthwart or crosed combs at the entrance of the hieue, those then shall be so conuerted, that the parts behind maye be emptied & left void for another time. So that when they shall be next gelded the old combs rather than the new, are to be taken forth, & the ware renewed, for that the older the warie combs are, so muche the worser they be.

If it happeneth, that the hieue be so made, that the same may not be remoued out of y^e place then ought you to geld first the hinder parte, and after the foreparte: and this especiallye ought to be done afoze five a clocke in the morning, and after

nine of the clocke at night, or in the nexte morrowe. Nowe the Bees when they knowe this, all come to fill the emptie place, so that after they haue repaired and filled the same, and fulfilled all the rest aboute it, then flye they to the forepart, and do worke in like order. By whiche we may evidently learne, that they haue filled the same empty place also, by their abiding still there. Besides these, as the great plentie of honny, doeth cause sluggishnesse in the Bees, euen so doeth the much abatement, and exceeding taking awaye of their honny, bothe dull the quickenesse and diligence of them, and cause them also to bee sluggish.

¶ What the honny is, and howe from the hiues
the same maye be prepared to vse.

Cap. xxiiiij.

As we firste gather the honny from the combes, so do we the ware for the comfote of the light, and other commoditie besides. Nowe what the honny is, and howe the same taken from hiues, maye be prepared to vse, shall hereafter bee taughte.

Firste the learned Isidore writeth, the honny to be of the deaue of some lyquide matter, and assyrmeth also the same to be founde sometimes in the leaues of the greate Canes. To whiche in a manner doth Publius Maro agree in this verse, writing, that hitherto the heauenlye giftes are of the Acreall honny. Others teach the honny in India and Arabia, to be like to salte gathered there on the leaues of trees. Others do doubt whether the honny be a sweat from heauen, or a certayne spittle of the starres, or a iuyce of the aire purging it selfe. But whatsoeuer substance the same is, yet is it a mosse swate, subtil, and healthfull iuyce, as Plinie witnesseth, which at the first gathering of it, is as a cleare water, but after the boyling a while, and purging of it selfe, as the newe wine (after the pressing forth) is wonte to do, doth by the twenty day after come to a perfect thickenesse of honny, throughe the often repeating

and

and working of it in the hote dayes, frō the beginning of May and vnto the middle of June.

Nowe the honny is gathered in this maner: first, befoze the honny be pressed out of the combes, must those corrupt combes hauing red filth, and hauing yong in them (if any such be there) be pressed oute, bicause they bothe procure an euill taste, and with that iuyce corrupt the honny. The combs byused together, ought to be put into a cleane presse, being yet warme, and new gathered out of the Byues the same day, whiche lette lye there, vntil the honny by little and little be run forth, or rather for the more expedition, pressed forth with a heauy waighte, and the same which is then come forth, is very faire rawe honny. After that the honny with the waxe muste be boyled togilber, as hereafter shall be taught.

Nowe when the combes be thus byused together, and the yong Bees killed and cast forth, then must you make your honny in this maner. As first in the Moneth of Septēber or October, take y^e heauier and older hives, which are of two or threē yeares olde, and not hauing byed swarimes in the Sommer befoze: and that ouer smoke and flame of strawe, drie flaxe, or yelowe Bismstone, the hieue a little whiles be holden, that the Bees may so flie vppē to the toppe of the hieue, or else suche remaining below burne their wings.

After that, turne downe the head of the hieue on the ground, and with a sharpe knife cutte the crossed stiches asunder in the hieue, or plucke thē forth with your hand. For by that meanes are the combes wel byused together, and the Bees either killed with the fall of them, or else flye away. After this putte all the combes on a heape, being gathered oute of the hieues here and there into a presse, leaning somewhat on the one side, but some put y^e combs into a wine basket made of smal willow or Osier stiches finely knitte and wroughte together, that hanged vppē in a darke place, the Honny maye runne thouroughe by little and little from it. After that the honny hath thus runne forth into a cleane earthen panne or boll standing vnder it, then the same after poure into an earthen pottle, or pottes, be-

ing as yet rawe honny, but clearer and better than the other liquor of the honny. Which for certaine daies let stand open, that the swete licoz may througely cole, and the same in the mean whyles often skimme or purge with a sponne. Nowe after this, the fine peeces or crummes of the combes, which yet remaine in the bagge of wicker, or wine basket, or presse, putte into an earthen pottle, panne, or kettle, ouer a verye softe fire, that the same may heate without boyling, and alwayes keepe poure hande in the vessell, to stirre still aboute hither and thither the honny and ware, and to open also the ware by pece meale vntill the honny and not the ware, shall be througely molten. When the honny througely heate, beginneth a little to pricke the hande, then poure all the whole Masse or substance into a strainer, and putting the same in a presse made for the onely purpose, wryng it harde about, yet it maketh no great matter, if that same be not so earnestly wrynged or pressed out, that none of the Honny remaine yet with the Ware, seeing that the Honny and Ware haue effects in some causes alike. Now this Honny whiche is thus runne forth, is named the Soddon Honny, whyche oughte in like manner to be poured into earthen pots, and to stande open for certaine dayes, skimming it dayly with a sponne, vntill it be througely colde. The nobler or worthier Honny is that which runneth oute in a manner of the owne accorde, befoze the second pressing out of the combs. And mixe not of this seconde Honny with the firste, but keepe them diligentely aparte, leaste by mixing the firste to the seconde, you make the beste (being the firste) the wooser. After all this thus handled, the same whiche yet remaineth in the strainer, wash diligentely with Conduitt or faire Spring water, that you may so haue the Mulse or honny water, of which being soddon and diligentely skimmed (as of this hereafter shall be further taught) is the Mulse made, that serueth to manye good uses.

Which

¶ Which Honny is accompted best. Cap.xxv.

Certaine Countries doe excell in the perfecte goodnesse of Honny, like as the famous Attica of Græce, which for the excellencie of the Honny is hadde in great reputation throughout the world. Hybla also & Hymetus being hills of the same Countrie, which the deceiuers applie to Honny, that the same maye both be named Hymetus and Hybleus Honny. Creta, Cyprus and Affrica, as in goodnesse they are notable or worthy, so the abundant or maruellous plentie of the Honny is there commended. Also the newnesse of Honny is likewise commended, as the auntientnesse of wines, but the Spring and Sommer Honny, especially if the vessell or hieue stande in a valley or bottome, and doeth excell in the waight of hande. But the honny gathered of bitter hearbes is counted vnprofitable, as the same Honny which the Bees gather in the country of Pontus, where the Bees onely gather their honny of the *Thozme* woode. The white in all Countries is better esteemed than the blacke, but the beste honny is that whiche is very cleare, of a golden colour, of a moste pleasaunt and swete taste, cleauyng somewhat to the fingers in the handlyng, and but little stiffening or waxing hard together. And that the honny in the pouring forth, doth straightway bzeake here and there, and squirteth or sprinckleth (sodainely as it were) sundrie droppes abroad, which being on thys wise, Plinie teacheth to be the triall and sure note of a good and profitable honny.

¶ Of the venomous Honie, and of the wonderfull Honnye of Creta. Cap.xxvj.

So much forceth to vnderstande and know, what maner of foode y same is, with the which y Bees do liue, as y poisoned honny also, that may be gathered by them, whether it be euill or venomous. For the Honny of Heraclea in the Countrey

ff. ij. trey

tree of Pontus, hath bin for certaine yeares, very dangerous, especially throughe a certaine hearbe growing white, whiche also bereth their cattell by eating therof, named of the dwellers there, Aegellothron. But by these notes is that Honnye founde out and tried to be venomous, as firrke, that the same is not thicke at all, the colour brighte or more glistering, and hath a strong saour, mouing forthwith often sneeſing, and is also waightier. Also such persons, as taste somewhat thereof, doe couet to lie or fall hastily on the earth, seeking for colde-nesse, and be all on a sweate, so that in sodaine daungers, muste some speedy helpe or remedies be ministred, like as the olde Gulle of the best honny, and herb Grace, or other like confections, be often ministred to suche persons. There is also another kind of venomous honny, in the border of the country of Pötus, that for y madnesse which it engendereth, is named of the people Neono menon: the same honny is supposed to be gathered of the floure Rhododendros, whiche groweth plentie there in the wooddes. Plinie writeth of a maruellous honny to be in Creta; for that in Carina being a hill of that Countrey, he affirmeth a honny to be gathered, whiche the flies wil not touch, and supposed also to be a singular Honny, for the composition of euery medicine.

¶ Of the miraculous worthinesse of Honny.

Cap. xxvij.

Most men in Italy prepare and make their medicines whiche they purpose to keepe long, with honny, so that honny preserveth euery thing from putrifying, which you would haue in safety, and to continue for a seasö, throughe his clamminesse. And of this, auntient men did enbalme bodyes of the deade, which they would haue preserved, and to continue sound without corrupting many yeres, with honny only, and the same they also smeared within the tombes or sepulchres of the deade, for the longer keeping of bodyes. The selfe same writeth the learned Papinius of y body of Alexander, which was likewise embaul-

embaulmed with Honny. And not vnlike to this writeth Plinie, in the xxij, booke, and xxiiij. Chapter of his Historie, of sundrye dead bodyes also embaulmed wth honny. Which in another place also of his Historie writeth by Claudius Cæsar, that brought a monster out of Egypt into his countrey, whiche was also embaulmed with Honny. Ahanæus also writeth, that bodie subject to sickenneses, maye both be kept free from sickneses, and from corrupting a long time, thzough the often smearing and annoynting of Honny ouer all the bodie. As the like wyters report, that the Isle of Corfica, or Corse do, whiche liue a long time.

The Macrobian being a people in Affricke, named also Moercin, doe liue a long time, as certaine authours write, by cause with the meate of Honny, whiche is plentie with them, they dayly be fed, and vse continually. Some affirme that Democritus which recreated by Honny, with the only bzeath and sauour of the Honnye made hote, liued (as they write) vnto a hundred nine yeares. Aristoxenus writeth, that the table of Pythagoras was dayly furnished with only bzeade and honny, and yet liued vnto 9 fourescore and ten yeres of the Philosopher Heraclides. The Honnye also is founde to auayle against surfettes, and of this accompted amongst the medicines putting awaye drunkennesse. And of this it is no maruel, that suche thzoughlye skillfull in Physicke, when anye be ouercloyed or filled with Wine, do counsell firste to emptie their stomackes by vomityng, and after against the force of the fume euaporating of the remnaunt of the Wine yet remayning, they glue to them Honny spreade on bzeade, as it were by putting backe the euill, that it maye so remedie and putte awaye the grosse fume.

¶ How profitable the vse of Honny is in medicines. Cap. xxviiij.

Like the white Honny is to be vled in cooling Medicines, but the ycalowe in heating medicines: also the nature and

propertie of honny, is to cleanse and open, and to expel humors. Therefore it is profitably applyed in filthy ulcers, being boyled and annoynted vpon. It closeth also loose and gaping fleshe, through his wholenesse. Also with Liquid Alumē & honny sodden together, are Kingwozmes, and cornes or swelling of the feete healed, by annoynting therewith. Against the vncertaine soundings and noyse of the eares, and grievous pains of them, the hony grounded with that salte digged out of the earth, and dropped warme into the eares: the selfe same killeth both nits and lice, by only annoynting the heade therewith. Also the hony purgeth the eyes dimme of sight, healeth the swellings, and other defaultes and griefes of the iawes, the swellings and kernels vnder the iawes, neare to the throate, after the preparing to vse, the same be gargelled in the throate, and the mouth washed therewith. The hony eaten causeth vyne, helpeth y cough (being cleane skimmed before) and the bite of a Snake or Adder. The hony also helpeth those which haue drunke vnwares the iuyce of blacke Poppie, so that againste the same euill and daunger they drinke rosed honny warme. Also the same drunke helpeth the malice and daunger of Pusshozmes eaten, and the bite of a madde dogge, or otherwise melting in the mouth, after the forme of an Eclegma. Yet all the sortes of rawe Honny be windie and swell the bodie, mouing a rumbling or noyse in the belly, procuring y cough, easily couerted into euil humors, stopping the liuer and the milt through the clamminesse, and hurtfull to chollericke bodies, if so be the honny before (as Dioscorides writeth) be not thoroughly skimmed and cleansed as the same ought to be. The honny also boyled doth better nourishe than the rawe, yet lesse mouing the belly to solublenesse, and to the stoule. And the honny of it selfe, or mixed with others, helpeth the soze in the lungs, and all other diseases of the lungs. The honny is rightly ministred to such as haue the impostume in the lungs and the pluresie. And the hony in which dead Bees are, is applyed to the venemous honny. The hony drunke with wine helpeth the corruptiōs which are engendred of the meate fishes. But to colde and moyste bodies the honny is more profitable

fitable, therefore verie fitte for olde persons, as Galen affirmeth. And to persons being twentie yeares of age, and of an vntemperate hotenelle, or others hote of qualitie, the honny to them is hurtfull, bycause it is sone conuerted into choller in them. Democritus was on a time asked, by what meanes men might both continue in perfite health, and liue vnto very old yeares, to which he thus answered: if so be men annoint their bodics outward with Oyle, and apply their bodics inward with honny. Further honny profiteth weake persons, being applyed as the Mulse water, of which shal after be taught in the next chapter. To persons cold of nature, the honie may aptly be ministred in hote broth, but to hote persons ministred in warme brothe, the honie is not rightly given. The honny mixed with Camphora, & lying to settle threë dayes befoze, with the which annointing the face, doth speedily clense the spots in the face: the self same doth the honie, mixed with the gall of an Dre. The pure white honie clenseth the breast, softneth Impossumes, being as well without, as within the bodie. The honny also mundisyeth, openeth the stoppings of the Liuer and Splete, helpeth dropsie bodies, and strengthneth weake members. The Aromaticke honny much auayleth in sundrie diseases, being thus prepared, as the pure redde Rose leaues finely clipped, and after boyled in pure white honnie, being often and diligentlve skymmed. For such a Honnye doeth comfozte and mundisy, dissolueth in the clenning the clammy swellings, digesteth the scumaticke and grosse humoys, and drunke also with colde water, it bindeth the bellie, but ministred with warm water it loseth the bellie.

Of

¶ Of the drinke of Honny which they cal the Mulse water, or sweete water of the Romaines.

Cap xxix.

BY the aunswere of Pollio the Romaine vnto Augustus Emperour, we may evidently learn, that the Mulse made of hony, is healthfull drinke in strengthening the bodie. For Augustus on a time demaunded of him by what meanes a man might liue to great yeares, and all that season fr̄e from sicknes, to whome he thus aunswered, that applying the Mulse water within, and annoynting Dyle without the bodye, doeth worke the like. The Mulse truly is a drinke made of water and hony mixed togither, which the Greeks properly name Melicrate, & some Hydromel, as the drinke made with wine vnlayde, or without water, and hony, they aptly name Oenomel. Now the Mulse water drunke, doeth ease the passage of winde or bzeath, softneth the belly, and the long time of oldenesse changeth it into the kinde of Wine, moſte agréable and profyting the Stomacke: but the same contrary to the Synowes, yet it recouereth the appetite lost, and is a defence against the dangerous drinke of Henbane, if it be ministred with Asses milke. This drinke truly (Aegineta wytyng therof) is thus made: let eight times so muche water be mixed vnto your Honnye prepared, wherby the boyle or seeth so long, vntill no more some aryseth to be skymmed off; then taking it from the fyre, preserue it to your vse. But the same Paule Aegineta affyrmeth, that the Mulse profyteth nothing in manner the collicke, because the same in them is lightly conuerted into choller.

¶ Of the drinke Oenomel, which is made of pure wyne and Hony. Cap. xxx.

THE Oenomel, which is a sweete wine made with Honny, Aegineta teacheth the same, not only for the preseruation of helth, but also to expel the tozmet of sicknes, through this
moſt

most wholesome drinke, as þ̄ whiche giueth, not onely strength of body and courage, but the long race of yeares. Also it expel- let̄ an olde grieue of the Reines, being often drunke with Parcely seedes. But the beste Oenomell is that which is made of olde and tarte wine, and the beste purified hony, soz the same doth lesse swell. The same also harmeth drunke after meales, but befoze taken, doeth procure an appetite. Dioscorides tea- cheth that maner of making the Oenomell in this order: first he willeth to take one gallon and a quarte of Wine, and mix- ing it with halfe a gallon, and a pinte of the beste hony, to pre- pare the same orderly. But some prepare oz make the drinke speedilier to vse after this manner, as the hony they boyle with Wine; and after poure sozth the same into other vesselles.

¶ Of the singular water of Hony gotten by order of distillation. Cap xxxj.

The Hony of Bees maete to distillation, ought especially to be white of coloure, which befoze the distilling muste be mixed with pure and white and well washed sande, but not drie in any case, after that, putte the same either into a common Rose Limbecke of Tinne, setting a hearie siue close vpon it, that it may touch the Hony in the distilling, oz else into a bo- dy of Glasse, sette into a potte of fine sifted ashes oz sande, ma- king at the firste a soft fire vnder it, vntill the first water bee come, whiche is white, and after the yelow water appeareth, then put vnder another receiuer, setting aside the white, and so long distill vntill the redde beginneth to shewe: at the appea- rance of whiche, put vnder another receiuer, letting that re- maine vntill no moze will come. Which red water being the last, serueth for sundrie vses, as to die womens haire yelow, by offē wetting the haire with a Spunge, and drying the same in the hote Sunne. Also it causeth sayre and long haire, and stayeth the sheading of haire: besides (this thirde water) doeth cleanse the soule corruption and matter being in filthy wounds, and olde vlcers, if they be washed twice a daye

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with the same, causing also newe flesh to grow in those places, if you dayly washe them with the sayd water, or otherwise dip linnen clouts in it, laying them aptly on the sores. The selfe same healeth places grievously burned, without appearaunce of anye scarre afterwarde, by often applying linnen cloutes drowped in it. And the seconde water being of a golden colour dipped into the eyes, doeth not onely helpe swollen and bleared eyes, but the pinne and webbe in them, by the dayly and often dropping of the same into the eyes. But as touching the white and sirke water, there is no worthy matter mentioned in thys place by any of the old Physicians.

¶ Another manner of distilling the Honie, more at large taught. Cap. xxxij.

Take a pinte, or as much as you wil, of y pure rosed hony, which put it into a bodie of glasse close covered & luted about, setting the same after into hote hoyle dung with a square stone on the head, & couering it over with y hoyle dung for 14. dayes, after which time, take the body forth, setting it into a fornace of fine sifted ashes, well a finger bredth or moze above y hony, presupposing on your part, y little peeces of flint stones be put into y hony, & then distilled with a soft fire into a receiuer well luted at the mouth, for doubt of the ayre breathing forth. Whē y same beginneth to distil, then draw forth part of the fire (vnlesse you can other wise gouerne your fire by the help of the fornace) whiche comming forth the white, let so long distill, vntill there appeare yealow droppes like to gold. Upon the sight of this, set vnder another receiuer, keeping diligently this sirke water by it selfe, and increasing the fire, let that long distil, vntill certain white smokes appeare, running into the receiuer: that speedily take away, putting to another receiuer, which let so long distill, vntill no moze will droppe forth, and this laste, is of a rubie colour in rednesse, so that if a woman often wettesth the heares of hyr head with this thirde water, setting then in y hote Sunne, both to drie and wette them againe, wearing in y meane whiles a large strawne hatte with an open crowne, to spreade

spredde the heares vpon, for the speedier drying of them, whiche so ordering, doeth not onely cause the heares to grow long and very sayze, but dyeth them in time so yealow as gold. Also to diuerse other vses, doth this red water serue, as afoze is taught in the other Chapter. The white water (which commeth firste) by waishing the face & derlye with it, doeth cause it to become cleare and sayze, and kepeth the skinne from looking olde, for a long time, as the same hath ben experienced often by the worthy dames of Rome, Naples, and Venice. And the yealow lyke golde being the seconds water, doth especially serue to this vse, that if any person happeneth to be infected with the plague or Pestilence, then to take two ounces of this yealow water of Aloes Epaticke, of redde Myrre, and of the east saffron, of each ten graines, and a leafe of the best golde, all which grinde into fine powder, mixing the same with this water: after that giue it vnto the sicke to drinke, whiche no doubt wil both helpe this & many other diseases.

¶ The manner of distilling a water of Hony named the Quintessence. Cap xxxij.

To make this singular and precious water, you must take two poundes of the purest white honie, being both cleare and pleasaunt in taste, whiche put into a body of glasse, being so bigge, that foure of the five partes of it maye remaine emptie, the same lute stronglye aboute, setting the heade after on it, and a receyuer aptelye to the nose of the Still.

When you haue thus done, then make a gentle fyre at the firste vnder it, but after increase the fire or heate more and more, vntill certaine white smoakes appears in the head of the glasse bodye, whiche do you workemanlye coole and turne into water, by the wettyng of linnen clothes in colde water, and layed on the heade and nose, towards the receyuer, for that turneth into a water so red as bloud: and being

being all come, putte it into another glasse, stopping the mouth close, whiche let stande so long, vntil the water become verye cleare, and in colour to the Rubie.

Now being on this wise, distill the same againe in Balneo Mariae, and so often repeate this, vntill you haue distilled it fire or seauen times ouer, that the colour be chaunged, and in the ende, to the colour of golde. Whiche then is moste pleasant of sauoure, and so swæte, that nothing maye be compared like to it, in flagrantnesse of smell. The Quintessence doeth dissolve golde, prepareth it apte to be drunke, and any Jewell put into the water, it doth also dissolve the same. Also this is named the Blessed Water, in that giuing to any two or thre drams to drinke, being at the point of death, doth so sodainely recouer the person againe, as doeth the Quintessence of wine. And washing any grieuous wounde or stripe with the water, doeth in shorte time heale the same. Also this pretious water doth maruellously help the cough, the Rheume, the disease of the Splen, and many other diseases, whiche woulde scarcely be beleued. The water also ministred daily vnto a person sicke of the Palsey, for the space of. xlviij. daies, he was by the mightie helpe of God, & this miraculous water, throughly healed of the disease. Also this Quintessence doth helpe the falling sicknesse, and preserue the boode from putrifying, so that by al those we maye learne, that thys is rather a diuine water from Heauen (and sente from God) to serue vnto all ages.

¶ The manner of drawing and making Waxe of the Honny combes. Cap. xxxiiiij.

The Honny being drawn from the combes, although some Bees hang on them deade, yet putte all together into a fayre panne or cauldron, into whiche poure so muche water or more, as the quantitie of the combes be. This set ouer a softe fire, vntill the same what it be, is throughly heated and molten in the panne, and in the melting continually sturre the same aboute, with a bigge splatter or some staffe, leaste the Waxe cleaue

cleave to the panne sides, throughte the flame or heate of fire, and appeare burned: after poure the whole substance into a course hairen bagge, pressing it forth into a troughe or other like vessell, made for the only purpose, on which poure two or thre kettles full of hote water, that no dyegs hang after on the Ware, and by that means shall you haue the Ware both pure and cleane. But if you will haue it caste into faire round cakes, and to be cleaner and purer, then melte the Ware againe, and being molten, poure it into a cleane vessell, which washed likewise with warme water (as aboue was taught) set after in the Sunne, by which meanes, the cake will continue verpe long faire of colour.

¶ What Waxe is beste allowed and commended.

Cap. xxxv.

Waxe being the foode of lighte, and seruing vnto innumerable vses of men, of all the kindes, the same is beste allowed and commended, whiche is bothe newe made, meanelye redde of coloure, somewhat fattie, smelling swete, hauyng some sauoure in it of the Honny, and cleare. Of the Ware also in sundrie Countries, that in the countrie of Pontus is well commended, and the same in the Ile of Creta: nexte to these is the Ware in the Ile of Corfica, which is made of the Bore tree, and supposed to haue some good effectes in it for Medicine.

¶ Of the great commoditie and benefite of Waxe in Medicines. Cap. xxxvj.

Waxe hath a meane among heating things, both in the cooling, drying, and moistning, as writeth Galen in the seauenth booke of Simples, and 22. Chapter, whiche properly helpeth the roughnesse of the breaſte, when it is soynded or mixed with the oyle of Violets, for that bothe mollifyeth or softneth the sinewes, ripeneth and resolueth vlcers. The quantitie of a

Eg. iij.

peale

Pease in wære swallowed downe of Purples, or such women as giue sucke, both dissolue the milke courded in the pappes. And tenne little peeces of pure newe wære, vnto the biggenesse of a hampseede, drunke downe at one time, doeth cause the milke not to courde in the womans stomacke and breastes. If the priuie place or thereabout, of either man or woman, happeneth to swell, then by applying an ointment made of white wære, it shortly assuageth and healeth the same. If anye also happeneth to be diseased with the bloody fire, by stuffing a yong Pigeon with newe wære, after roasting the same, and eating the fleshe thereof, doeth in shORTE time after stave the same. Also, if a Quince made hollowe and filled with pure newe wære, be after roasted vnder hote embers, vntill the same be tender, and eaten fasting without drinking after it, doth in like sorte stave and helpe the perillous fire, and scouring of bloude. The wære besides serueth to all maner of plaisters, ointments, supposito-ries, and such like.

¶ Of that which is a stay of the combes, and made for a defence of Bees from colde. Cap. xxxvij.

The same made of Bæes at the entrie of the mouth of hives, thought to be yelow of coloure, and swæte smelling, like to Storax, and drawne into a length, like to Mastike. Yet that is rather chosen, bycause in heating and drawing it is principallest. For of itselfe, this draweth forth thornes or splents of wood rundepe into the flesh by applying it plaisterwise on the grief, it helpeth an olde coughe by making a smoake thereof, and holding the mouth ouer it, and applyed in the forme of an ointment on ringwormes, doeth speedily heale them. For we this matter (as aboue was taught) is the stay of the hony combes, by which Bæes stoppe and keepe forth al manner of colde and other annoyances which might endamage them, the same also being of so strong a sauor, that some vse it in the stæde of Galbanum. M. Varro nameth it a refuge of Bæes, withoute the cottages, because Bæes make the same at the entry of the hie.

¶ Howe

¶ Howe to make Waxe white. Cap. xxxviij.

Waxe is made white in this manner, firste that kinde of
 ware (fit for this purpose) ought to be whiter and purer,
 and broken into little peeces, putte after into a newe earthen
 panne, pouring vpon it sufficient salt or sea water, and a litle
 fire vsed, which seeth altogether. When the same hath boi-
 led twice or thrice vp, remoue the panne from the fire: the ware
 being thzoughly colde, take forth of the panne, and scraping
 off the filth, if any suche hang on, putte againe into newe salte
 water, seething it againe. And when the ware hath so often
 boyled (as aboue was taughte) then take off the panne from
 the fire, and taking the bottome of a newe earthen panne, melt
 it with colde water, whiche dippe by litle and litle into the
 ware, drawing it a litle, and that the water be aboue the
 ware, whereby the ware maye become verry thinne, and be
 the sooner cooledit selfe. And taking by and by oute the mould
 or bottome, drawe firste the rounde cake off, and wetting a-
 gaine the bottome in colde water, dip it into the ware, and the
 same so long doe, vntill you haue drawne off all that ware into
 cakes of like sorte, whiche after stiche thzoughe with thzede,
 hanging the cakes on a rope one from another, and that in the
 daye time often wetting them in the Sunne, but in the nighte
 time, in the Moone light: and so long doe this, vntill the ware
 be white. And if anye desireth to haue ware whiter than this,
 then let him do the like, as abouesaide, but boyle the ware oft-
 ner. Some in steede of the salte seawater, take strong Wine
 water, in whiche they boyle the ware in the same manner
 twice or thrice, as aboue was taughte. And Paulus Euerdus
 in his booke of Confections, teacheth the making of ware white
 two maner of wayes.

Howe

¶ Howe you may make redde Waxe. Cap. xxxix.

That you maye colour and make Ware redde, take to one pounde of ware, thre ounces of berye cleare Turpentine, if it be in sommer, but if it be in winter, then take foure ounces. Now these disolue and melt together ouer a soft fire, and taking it from the fire, let it coole a little, after which put in your Vermillian finely ground on a Marble stone, and of swæte Salet Dyle, of eache one ounce, mixing these well, stirre al together, diligently. But some in stæde of Vermilion, doe take the reede leade, which is little commended, except there be thre times so muche of the redde leade, as of the Vermilion putte in. And in the like sozte may you make the greene Ware, if instæde of the Vermillian, you take so much of the greene Copozas finely ground, as you did of the Vermilian.

¶ Howe to drawe a profitable Oyle out of Waxe, for fundrie vses.

Cap. xl.

The Oyle of Ware, is myzacious and diuine in wozyng, bycause it serueth in a manner vnto all griefes. Reymond Lully greatly commendeth this Dyle, appzouing it rather as a celestall and diuine remedie, and that this in woundes, doeth woze mozte miraculously, which for his maruellous commo- ditie, not so well to be allowed of the common Chirurgions, bycause this pretious Dyle healeth a wounde, be the same neuer so wide and bigge, being befoze wide stitched bype, in the space of tenne or twelue dayes at the mozte. But those whiche are small, this Dyle healeth in thre dayes, by annoynting onely on the cuttes or woundes, and laying after linnen cloutes, wette in the saide Dyle, vpon the woundes. For inward dis- eases the saide Dyle wozeht myzaciouslye (if that you mini- ster or gyue a dramme at a time in white Wine to drinke) and stayeth also the sheading of haire, either on the head or beard,

by annointing the places with this Oyle . Besides these, it is miraculous in the procuring of bzine, being mightily stopped, and helpeth also stiches and paine in the loynes , by dzinking the like quantitie of the Oyle aboue taughte in white wine.

Now the making and dzawing of this oyle, is on this wise : firste take a body of glasse, named a Retort , which stronglye lute aboute with clay and flocks, diligently tempered together with salte water : after the body is thus fenced and thoroughely dzie, putte in a pounce of pure newe ware , so that the saide ware filleth not aboue halfe youre body , and to euerye pounce of Ware, poure in foure ounces , of the powder of redde bzicke, finely bzused, whiche after set into an earthen potte, filling it rounde absute with fine sifted ashes or sande. After this, set the potte with the bodye in it, on a soynace, making a lesse fire at the firste vnder it , and after encreasing a little more your fire, distil them so long, vntill all youre Oyle be come, whiche after a while wyll congeale in the receiuer: but it maketh no greate matter, although the oyle so doe , for it is neuerthelesse in his perfection. Bycause that if you should distill it so often ouer , vntill it will congeale or stiffen no more in the receiuer, then shall you make it ouer hotte, and so quicke in the mouth, that it is not possible by anye meanes to dzinke it downe . But being once distilled , you maye either giue it in Wine to dzinke, or annoint with the Oyle on any place of the bodye where you will, whiche will alwayes doe good , and hurte in no manner.

And in consideration of these aboue taught , you maye evidently learne and perceiue, that this myraculous Oyle oughte to be hadde in greate veneration of the common sorte.

Hh.

Another

Another waye of drawing the Oyle of Waxe moste noble, and doth maruelously help the cold Goute, the Sciaticke, the swelling of the legs, and all other griefes proceeding of a colde cause. Cap. xli.

TAke of pure newe ware so muche as you please, which put into a panne ouer the fire to melte, and being molten, haue by you in a readinesse another panne well glased, and cleane within, filled with verie good and perfecte wine, into whiche poure youre molten ware, letting it soake and drinke in well, and washe often in the saide wine. After this take the ware forth, melting it againe ouer the fire, and molten, washe the same againe in the beste wine, so that euerie time melting the ware, pure it into freshe new wine, washing and soaking it in the same diligently, after wringing it very wel with the hands. And vsed on this wise, both melt and washe againe in the aforesaide manner, and this also do for righte times together. Then set the same forth, being a cleare season and ayre, all the night throughe, after which put the ware into a Retorte with a little of Mumia, and oyle of Ypericon or Saint Johns wort, and a little olde Dyle: and although without these it maye doe good, yet mixed with these it worketh farre better, than vsed alone.

Howe to retourne to the former matter, this creaked bodye or Retorte set in fine sifted ashes, and a gentle fire made vnder it, vntill all the oyle do runne forth, and in this coming forth of the oyle, shall appeare all the foure Elements, as Ayre, Water, Earth and Frye, whiche will orderly appeare in the receiuer, right maruellous to see. And the Dyle being thus fullie drawne, worketh miraculoussye in all diseases which proceed of a colde cause, like as we haue aboue taught.

¶ The conclusion to the Reader.

THUS (gentle Reader) I haue (I trust)efullye satisfied thy desire in as manye things as are needefull to be knowen. And I committe this my little Booke to thy gentle iudgement: if thou mayste recciue any profite or commoditie thereby, I shal be gladd of it, and if not, yet fauourably let it passe from thee to others, whose knowledge and experience is lesse than thine herein, that they may gather suche things as to them are strange, thoughte to thee wel known before. And thus brieflye I committe thee to God.
(::)

Hh.ij.

An



¶ Certaine Husbandly Coniectures of Dearth and Plentie for euer.

The first Chapter.



And first consider and marke, that howe the weather is a daye befoze the day presente, and the daye after the Sunnes entraunce into the signe Aries, and suche like shall the weather be (foz the moste parte) in these thre moneths, as in September, October, and Nouember.

And loke howe the weather shall be at the Sunnes entrance into the signe of Leo, as at the day of the entrance the daye befoze, and the daye after, and suche commonlye shall be in the moneths of December, Ianuarie, and Febuarie, foz if the winde shall then blowe oute of the North, or East, and those daies drie, then shall followe a verry colde season in those thre moneths: but if the winde blowe out of the South or West, and that it raineth in those thre dayes, then yse to followe in those thre moneths. And if the weather in these thre daies shall be neither wholly drie, nor wholly moiste, then shall folowe an vnstedfaste Winter.

And like as the weather shall be at the Sunnes entrance into the signe Libra, as at the daye of the entrance, the daye befoze, and the daye after, suche foz the moze parte shall be the Spring, as in the moneth of Marche, Aprill, and May.

And loke howe the weather shall be at the Sunnes entrance into the signe Aquarius, at the daye of the entrance, the daye befoze, and the daye after, (suche foz the moze parte) shall the weather be in the moneths of Iune, Iuly, and August.

And manye auintient men affyrme, that like as the weather shall be whiles the Sunne is running by the signe Libra, and vnto the .20. degre of Scorpio, which time is fro the daye named (the Exaltation of the crosse) vnto the day of al Saints, such foz the moze parte shall the yeare following be, as in diuiding that foresaide time into twelue moneths, and that foure
dayes

daies doe aunswere to eche moneth, of the whiche foure dayes, that eache one of the foure, doeth declare the condition of the quarter following, and beginning also to reckon November as the first moneth of the yeare.

And the generall signes of dearth and plentie after y^e minds of the auncient husband men be these, as the ouermuch colde-nesse dzing, the ouermuch moysture softning, the ouermuche heate greatly burning, and the ouermuch dzinesse putrifying and working into dust.

For when any of these qualities shall excede in the proper time, but especially in that time, which to the cozne and frutes do not agré, then shall dearth and scarcitie both of frutes and cozne ensue.

As for example, when the moneth of March shalbe ouer moyst and wet, which rather ought to be drie, and that the moneth of April shal be drie, which then ought to be moyst, doth after pronounce the penurie of the frutes of the earth.

And if that part also of sommer shalbe weat, in which the cozne doth then fall vnto ripenesse, that rather ought to be drie, doth after signifie the scarcitie both of cozne and other frutes of the earth.

And the like may be saide of the other constitutions, which when the Elementall qualities shal be in such a condition as do best agré, then doe they promise both fruitfulnessse and plentifulnesse.

And if in the Spring be signes of colde and drought, and that in the ende of the spring neare the full moone be frostes, then shall follow very small yeelde of the frutes of the earth, and little wine that yere folloving.

And if the spring be drie, then fewe shall the frutes of the trees be, yf god, and the scarcitie of cozne shal be that yeare.

And if the Spring shall be colde, the frutes of the Earthe shall be late ripe.

And if the Spring and Sommer shall be ouer wette, or mistie, or colde, with cloudie weather for manye daies together, whyles all the trees haue bozne their blossoms, and the fieldes

their floures, and beginne to shed de their floure, then shall follow the scarcitie of fruites of the earth in that yeare, or else a verie greate rot of them, and many sicknesses in that yeare.

And if the sommer be drier than customably, then shall follow the scarcitie of corne, yet the Sommer fruites shall that yeare be sound, the fishes then die, and most sharpe sicknesses shall raine that yeare.

And if the Sommer shall be hotter than customably, then shall followe many sicknesses or diseases, yet great plentie of the Sommer fruites that yeare.

And if the Sommer shall be colder than customably, then shall follow a healthfull yeare, but the fruites of the earth shall late ripe that yeare.

And here further note of the spring, that if in the same season of the spring, there shall be a moze plentie of all floures and fruites toward than customably, doth after signifie a scarcitie of corne that yeare, unlesse the heate of sommer doth otherwise reforme the same.

And the wise and auncient husbandmen haue obserued, that when the winter shall send downe floze of raine on the earth, so that the same excede not or bee too much, and that the March following be drie, and the Aprill wette by often shoures, and that the same part also of Sommer bee drie in which the corne falleth to ripenesse, then doth the same promise a plentifull yeare.

And when that part of the Haruest shall be faire and drie, in which the wheat is sowne, and the parte of sommer in which corne falleth to ripenesse shall be faire and drie, the spring also meainely warme, doth then not only promise fruitefulnesse, but a plentifull yeare of corne.

And nowe the Haruest moyster than customably doth purtrifie the Graves, and causeth a small yeelde of wines that yeare, with the scarcitie of other fruites.

And if in the latter part of Haruest it be moyster, than in the yeare following shall ensue the scarcitie of corne.

And if the Haruest bee drier in the first part, then in the yeare

yeare following shall be, and that smal graine named Mill, and such like, be deare.

And if the harvest be hotter than customably, then shall followe a diseased yeare and that dangerous.

And if the Harvest be colder than customably, then shall followe the losse of the Harvest fruites both in the store and fall of them.

And the Winter colde and drie, is of all husbandmen commended, but extreme colde, doeth then slea the trees, especially those which toy in a warme aire, as the Pomegranade tree, the Olive tree, the Lemmon tree, the Figge tree, the Peach tree, and such like.

And if the Winter exceede in the extremitie of coldnesse, the doth it signifie harme both vnto the Vine and Olive tree, the Cherie tree, and the yellow Quince tree.

And if the Winter be hote and moyst, then the same doth pronounce an vnhealthfull yeare, and daunger to seedes and fruites of the earth.

And the excesse qualitie, and distemperature of any of the foure quarters, is euill and dangerous to the fruites of the earth.

And the plentie of snowe falling in the due season of the yeare, doth batten the earth, (and if the others do helpe) then doth it signifie the plentie of cozne and other fruites of the earth.

And if any washeth the handes with snowe, it doth then make them stedic, in that the snowe is ingendered of a vapour somewhat drie and earthly.

And the snowe nourisheth shæpe & other beastes in that the snow is ingendered of the moyst aire, in which life consisteth.

And the snowe increaseth the cozne and other growing things on earth, in that by his coldnesse it so doth shut y poures of the earth, that the heate with the whiche the seedes of the earth be cherished, cannot then bzeath forth.

And the snow heateth and cherisheth the earth, by the thicke couering of it, and defendeth the greene wheat and other

other sēdes sown, from the sharpe and vehēment colde then of the ayze.

And the snowe may be kept all the yeare vnder the earth, covered with strawe, and profitable it is to mire with the wine in hote sommer, and necessarie also to cole the ayze about sick persons.

And the vnprofitable falling of the deawe, mistes, or fogges (especially when all crescent thinges doe bud forth, and shewe theyr floure) as in the Moneth of Aprill and May, as well on the trees, corne and grasse, which beastes then sēding on be greatly harmed, through the deaw fallen, and all other thinges also much harmed by the same, as hath bene often obserued by the ancient and wise husbandmen.

And the ouermuch falling of raine, frostes or haile, especially in the spring time, and in the winter time, whilst the corne is yet as grasse, the excesse of raine also doth then threaten the scarcitie of vittales to ensue that yeare.

And the great plentie of beanes, after the opinion of the common husbandmen, through the much raine fallen, doth soze shewe the scarcitie of corne, and especially of wheate that yeare.

And a like iudgement may be giuen of the Oke and Holly tree, which if they beare plentifully, then a fruitfull yeare followeth, and contrariwise bearing but few, then a deare yeare of corne to ensue.

And the great plentie of Grasshoppers, woymes and Caterpillers appearing in their proper time moze than customably, doe not only declare harme to vines and sēdes sown, but to all fruites that yeare.

And the great stoze of windes, not only cause little frustes, but scarcitie of corne to ensue that yeare.

And a stilnesse in a manner throughout the yeare, both declare a likelphode of the plague to ensue shortly after.

And the auncient Hipocrates writeth, that when in the Sommer the North winde long continueth, and in the Haruest, the South winde with stoze then of raine, it doeth after threaten

in the Winter the headache, hoarsenesse of voice, the cough, consumptions, or impostumes to ensue.

And if after a drie Sommer (as write the auncient Physicians) the North winde doeth long continue in the Haruest, then the bodie of women, and suche diseased with a moiste sicknesse, doe then in that season the rather recouer health, in that the drienesse of the seasons and windes is contrarie to the excesse, and to the rottennesse of the humors, by whiche the sicknesse were caused.

And if the Winter shall be hote and moiste, and the Spring colde and drie, then doth the same threaten sicknesse to men in the Sommer, and that women with childe shall haue vntimely birthes of a light occasion.

And Hypocrates writeth, that when in the Winter be longer Northerly windes, and in the Spring longer Southerlye windes, and that raynie and wette in the Sommer following, then doeth followe Agues, and the diseases of the eyes.

And when after a colde Winter, and that South winds and raynie in the Spring, and that the Sommer be drie, then in the Haruest following doe agues ensue, paines also of the bowels thozoughe the greatescoursing of the bodie, and sicknesse, with the whiche olde men, diseased persons, and childre be then moze pained.

And when the Southwest winde doth long blowe aboute the end of Haruest, the those persons diseased with a long sicknesse, do shortly after die.

And a further knowlege of dearth and plentie of victualles, and of sicknesse may be had on this wise.

Firste in the end of Haruest, cutte open two or thre Oke apples, looking whether there be in the either flies, Wormes, or Spiders.

For if in the Oke apple be founde Wormes, or Magots, then they signifie (after the opinion of auncient husbandmen) bothe dearth and scarcitie in that yeare.

And if the Oke apple cut open be founde like to flies, it doth after threaten battel to ensue in that yeare.

And if in the Dike apple be founde like to Spiders, then doe they foreshewe the plague oz pestilence to ensue in that yeare.

And to conclude, the onely prooue of the former taught, shall moue the Reader better to credite these.

*An euerlasting Prognostication of the
state and condition of euerye yeare, by the
only Kalends of Ianuarie: written by that antient
learned Leopoldus Austriacus, and others,
foz the commoditie of the wise Hus-
bandmen. Cap. ij.*



AD now, when the first day of Ianuary shall happen on the Sunday, then the Winter shall be temperate and good, yet windie, the Spring wet, the Sommer drie, and the Harvest hurtfull throughe windes. So that victualles shall be reasonable good cheape, plentie of Wines, the good health & encrease of sheepe and other cattell, and the indifferent plentie of honny, and the like plentie also of Peason, Beanes, Wetches, and the herbes and fruites of the Gardens. Also yong men shall die that yeare, and a discorde to be feared betwene Kings, oz else some manifest perils to happen to Kings and greate Prelates in auctoritie, and that diuers robberies shall be attempted that yeare. And if controuersies happen betwax Princes, then a conclusion of peace to be looked for in that yeare.

And if the firste day of Ianuarie shall happen on the Monday, then shall the Winter be warme, the Spring very colde, with Snow and frostes that season, the Sommer boisterous throughe winds, and haile oftentimes, and lande floudes shall be somewhere, and the Harvest very drie. So that sickneses shall ensue, throughe which many of the simple sorte shall then die, and diuers also shall die, throughe the sodaine plague then hapning.

happening. Also the likelihood of greate alteration to ensue, & that auncient women to mourne, Kings to die, and a greate slaughter to be feared by the sword. Also small store of wines, the death of Bees, and little hony that yeare.

And if the firste beginning of the moneth of Januarie shall be on Tuesday, then that Winter shall be long, and much snow in that season, and the likelihood of land floudes, throughte the muche raine then falling, the Spring windie, the Sommer very wette, and the Haruest abounding in grosse and rotten humors (so that a moste greenous plague is to be feared, and especially of women, and the likelihood of many Shipwackes, and very greate cares and troubles to happen unto Princes, with the scarcitie of fruites of the trees: and cozne shall be deare, with the sodaine death of cattel to be feared that yeare. Also wood shall that yeare be deare, and the likelihood of tearefull syes, and that the plague to be greivous that yeare. And yet shall there be store of Peason, Beanes, and Vetches, & plenty of hearbes and floures. Also there shall be plenty of Hony, Dyle, and wines that yeare.

And when the firste of Januarie beginneth on the Wednesday, then shall the Winter be warme and calme, the Spring wette, and disposed to sicknesses, the Sommer hote, and the Haruest vnprofitable, so that long sicknesses are to be feared, & the Quarten Ague with them. Also yong men shall then be sick, and in teopardie of death, and women the like, & in sundrie places shall happen a famine, with a greate byrte of strange newes. And there is also to be feared the greivous passions of the hearte, the ydlenesse of minde, or rather distraught, and the diseases of the matrice in women. And yet the plenty of Dyle and Wines, but the scarcitie of cozne to be doubted that yeare.

And if the beginning of Januarie be on Thursday, then shall the Winter be calme, & temperate, the Spring windie, & Sommer vnseasonable, and the Haruest drie, so that cozne and victualles shall then be deare, yet store of Dyle and Wines that yeare. And there is a likelihood of lighte sicknesses

to happen vnto the common people, but more dangerous sicknesses vnto the richer sorte. And the blearednesse of eies also is to be feared, and that yong children shall then die, battels procured, and the sedition of souldiours, and an earthquake to be doubted that yeare. Also great talke of newes shall be in Kings and Princes houses, and greate perills also be doubted to happen vnto Princes in that yeare.

And if the firste daye of Januarie happen on Fridaye, then shall the Winter be verie cold and drie, the Spring boysterous and wette, the Sommer temperate, the Haruest more wette than drie. So that the blearednesse, and other diseases with the filthinesse of matter running in the eies is to be feared, and the pime or web is likewise to be doubted to happen in that yeare. And yong children shall ther die, and a likelihoode that yong women shall be allured vnto a wanton loue, throughe the flatterie and great perswasions of men. Also a suspition of battels to ensue in that yeare, and the plague and robberies then to happen. Also the plentie of fruites is then promised, althoughe muche haile fall that yeare.

And if the beginning of Januarie happen on Saterdaye, then the Winter shall be windie and vnstable, the Spring windie, and vnconstant of weather, the sommer vnstable with manye tempestes, and the Haruest drie: So that victuals shall be deare, small store of corne, and little fruite that yeare. Also sheepe shall not well prosper that yeare, and a likelihoode then of the death of swine, and that wood shall be deare.

Also there shall be manye tertian agues, and diuers other diseases fayning among men, so that olde men shall then die, and a likelihoode of the death of many men, by the plague. Also many fires shall be hearde of, little store of Wines, Oyle, and Honey, yet plentie of hay that yeare.

And if Neweyears night (being the first night of Januarie) shall be calme and cleare, as withoute winde and raine, then doeth the same promise a prosperous yeare following.

And if in the same night the winde happen to blowe out of

the East, then doth the same signifie the death of cattell to ensue that yeare.

And if the same night the winde happen to blowe out of the West, then a likelyhood of the death of Kinges or Princes to ensue that yeare.

And if in the same night the wind happen to blow out of the South, then doth the same signifie the death of manye persons to ensue that yeare.

And if in the same night the winde happen to blow out of the North, then doth the same signifie the small yelde of all fruites of the earth that yeare.

¶ Howe to foreknowe the state of the yeare, by the only rising of the dogge starre, out of the husbandrie of Diophanes. Cap. iiii.

ABOUT the knowledge of this, there is to be considered and noted, in what signe the Moone shall then be, at the first appearance of the dogge starre about the Earth in our Realme of England, which generally to be reckened is about the seauenth day of July.

And nowe if the Moone runne then in the signe Aries, at the first appearance of the dog starre, it doth after declare the death of Cattell and much raine. So that small yelde of corne yet plentie of Dyle shal be that yeare.

And if the Moone runne then in the signe Taurus, at the first appearance of the dog starre, then doth it signifie much raine, fogges and mistes that shal harme much that yeare.

And if the Moone runne then in the signe Gemini, at the first appearance of the dogge starre, it doth after promise the plentie of corne and wine and all other fruites of the earth, a yet diseased yeare, and to be doubted that a King shal then dye, and that rebellion also shall be moued that yeare.

And if the Moone runne then in the signe Cancer at the first appearance of the dog starre, about the earth, it doth after threaten drought, with the great scarcitie of corne to ensue in yere:

And if the Moone runne then in the signe Leo at the first sight of the dogge starre, it after promisseth the plentie both of wines and Oyle, and the good cheape of cozne and other vic-tuals that yeare. And yet to be feared the commotions of the common people, and slaughter of the same to ensue, with an earthquake, and land floudes to happen in that yeare.

And if the Moone runne then in the signe Virgo, at the first appearance of the dogge star, it after signifieth the plentie of showes, and the greate store of fruites of the earth, and the cheapenesse also of cattell. And yet to be feared, that women shal be deliuered befoze their time in that yeare.

And if the Moone runne then in the signe Libra, at the first appearance of the dogge starre, it after declareth the stirring vp of a king, and a commotion of the common people. And yet the plentie of fruites of the trees, although there be a like-lyhood of the scarcitie of cozne and oyle in that yeare.

And if the Moone runne then in the signe Scorpio, at the first appearance of the dogge starre, it after declareth the com-motion of priests, the destruction of Bees, and an infectiue aire to ensue that yeare.

And if the Moone runne then in the signe Sagitarius, at the first sight of the dogge starre aboue the earth, it after signifi-eth a raynie yeare, yet fruitesfull, and the plentie of cozne, and toy among men. And yet is to be feared the death of cattell, & the multitude of foules in that yeare.

And if the Moone runne then in the signe Capricor-nus at the first appearance of the dogge star aboue the earth, it after declareth the commotion of souldiours, and greate store of raine, and yet the plentie of cozne, wines and Oyle, and al other thinges good cheape in that yeare.

And if the Moone run then in the signe Aquarius, at the first appearance of the dog star aboue the earth, it after signifieth of a most likelyhood, the death of a king or Prince, the scarcitie of cozne, and the plentie of such syles with the long hinder legges, that burne cozne by the touching of it, And yet little raine, with the plague to ensue in that yeare.

And if the *W*one runne then in the signe *Bisces*, at the first appearaunce of the dogge starre aboute the earth, it after declareth much raine, and the death of byzdes. And yet doth it promise a sufficient store, & laudable plentifulnesse, both of *W*ines, *D*yle, and cozne, but manye persons shall be diseased in that yeare.

¶ Other profitable instructions, right necessarie for husbandmen to know. Cap. iiii.

*A*nd first if the hozne of the *R*amme (nere his eare) be bozed, the same doeth tame his fiercenesse. And if his right genitor be trusted vp befoze he goeth to couer the *E*we, then doeth he beget an *E*we lambe. And if the left be thus straitte trusted vp, and the righte hanging downe, then doeth he begette a hēe lambe.

And if in the time of the *S*outh wind blowing, the *R*am doth then couer the *E*we, he doth after beget a shēe lambe.

And if when the *N*orth wind bloweth the *R*am doth then couer the *E*we, doth after beget a hēe lambe. And of what colour also the vaines shal be vnder the tongue of the *E*we, suche shal the colour of the skinne of the lambe be, for if she hath black vaines vnder the tong, then the *L*ambe shall be blacke of skin, and if white vaines vnder the tong, then shall she haue a white lambe: and if of diuerse colours, then the lambe shal be of diuerse colours on the skin. And that antient *I*saac writeth, that *R*ams in their yong yeares be of lesser moysture and clammynesse, than be the sucking lambs, and this is, through their age and qualitie then ruling.

And therefore the fleshe of yong weathers be better, and in gender better bloud than the sucking lambes.

And this is hēere spoken of such *R*ammes as be gelded, in that their moysture and hotenesse is then temperate.

And the wethers ouer old are to be refused in eating, in that they be then cold and drie without moysture, and they smallye nourish and hardly digest.

And

Also beefe and other fleshe of beastes being olde, be euill to eate, through the coldnesse and drynesse, and through the lacke of the moisture and hotnesse. And when the olde Rams in their time to couer the Ewe, be sooner moued thereto, than the yong Rammes, it doeth then signifie a good and profitable season to ensue in that yeare, and a good season and prosperous also for sheepe. But if in the proper time to couer the Ewe, the yong Rammes be sooner prouoked thereto than the olde Rams, then doeth followe the greate rotte or murreyne of sheepe in that yeare.

Also Ewes by drinkeing of water conceiue the sooner wyth Lambe and of this the sheepeheardes giue them salte to eate, wherby the moze drinkeing of water, they may so conceiue wyth yong, and they are also by that meanes preserued the healthfuller. And in the Haruest also some sheapheardes giue them to eate Gourdes seasoned with salt to encrease their milke, for by that meanes doth the milke moze plentifully issue forth of their teates, and the Ewes do sooner conceiue. Also in Sommer is the colde Northerly water good for them, and in the Haruest the warme Southerly water good for them.

Also to let sheepe feede in the ende of the day, is greatlye commended: and if they also stirre but little abrode, the same is thought very profitable, in that the muche iourneying, and labouring of them hither and thither, doth so cause the to become leane. Also the skilful sheepeheardes knowe, whiche sheepe will well endure the sharp winter, and which not, in that vpon some of the sheepes backes (as they affirme) Ase maye be founde, and vpon other some none at al. So that by this may be learned, that such sheepe which be weake, a man can hardely plucke off the Ase from their backes. And further learne, that those sheepe whiche haue long tayles, maye hardlier abide the sharpe colde winter, than those hauing broade tayles: and the sheepe also curled of haire (do in like sorte) hardlier endure the bitter winter.

And besides these, the thunder greatly harmeth sheepe, especially if anye Ewe being with yong happeneth to be alone at
that

that instant, for that she then with lambe, doeth of the fearefull noyse of the thunder, deliuer hir yong one before the time. And for a speciall remedie to saue that vntimely casting of Lambes at such times, the skilfull sheepehearde haue found out, that y only drining of many Ewes together, is a sure safegard to the to auoyde this occasion. Besides, if you will remoue the rot of sheepe, that they die no more, then take the belly of a Ram, and seeth the same in wine and water together, which after mire w water, and giue the same generallpe to all the sheepe to drinke, for by that meanes shall they againe be recovered of their disease. And here learne, that the fleshe of sheepe, and other foure footed beastes, which commonly feede in moyste ground, is euill to feede vpon, for the harde digestion of the same. Also learne, that the good sheepe are knowen by their age, as being neyther to olde, noz yet as Lambes: and by the forme also they are knowen, if so be you finde them large of body.

And they besides haue much and soft wool, and both thicke & long heare, especially on the nape, and about the necke, and the like haire on the belly. And both the healthy & sicknesse of sheepe may be knowen, if so be any openeth their eyes, and findeth the vaines within to be redde and small, which vndoubtedly declareth them to be sound and good: but if those vaines that appeare white, or redde, and bigge, then those sheepe are diseased and weake.

And if the sheepe go lustily and boldely by the waye, it is a sure taken that they be sound, but sadly and hanging down the heade, then be they diseased. These hither

to of the yearely coniectures, and other rules,

only meete for husbandmen to vnderstand and know,

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