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REPEORATIVON SERIES NO. 8

BULLETIN 16 the LLOYD LIBRARY

BOTANY PHARMACY & MATERIA MEDICA

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REFRUIDUCTION SERVES, NO. 8

AMERICAN MATERIA MEDICA

including a biographical sketch of

"JOHN JOSSELVN, Gent"

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WITH SECTIONS NOTES AND COMMENTS BY

HARVEY WICKES FEATER, M.D.

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Publications Issued by the Lloyd Library

(Complete List to April 1, 1924.)

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BOTANY, PHARMACY AND MATERIA MEDICA

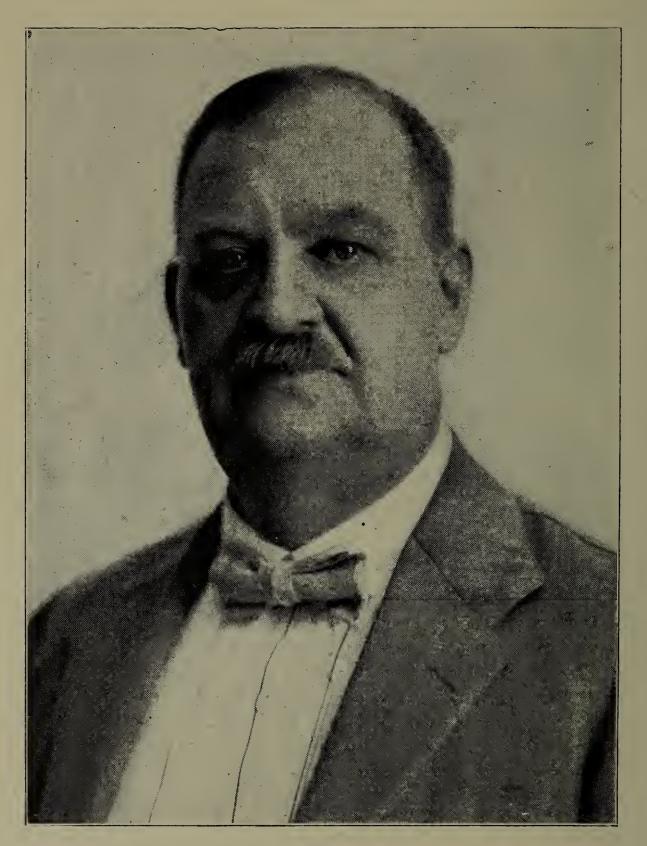
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HARVEY WICKES FELTER, M.D.

The Lloyd Library considers itself fortunate in having the opportunity to present as one of its Bulletins, this study of "The Cheerful Author," John Josselyn, made by Dr. Harvey Wickes Felter.

Without his knowledge, we are presenting as a frontispiece the portrait of Dr. Felter, concerning whom we may well repeat the phrase applied to Josselyn, "the cheerful author," as well as the skilled physician and life-long student.

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 REPRODUCTION SERIES NO. 8

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THE GENESIS OF THE AMERICAN MATERIA MEDICA

including a biographical sketch of

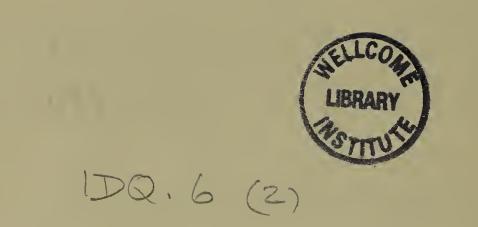
"JOHN JOSSELYN, Gent"

and the Medical and Materia Medica References in Josselyn's "New-Englands Rarities Discovered," etc., and in His "Two Voyages to New-England."

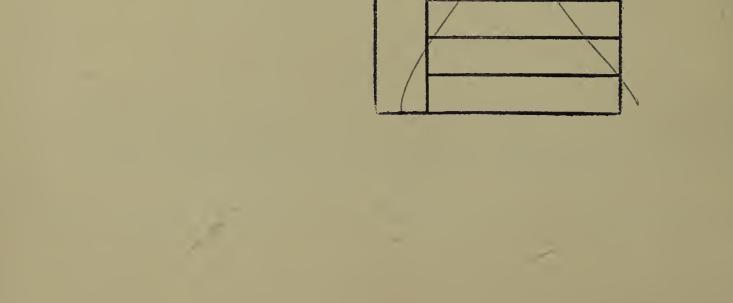
WITH CRITICAL NOTES AND COMMENTS BY

HARVEY WICKES FELTER, M.D.

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FOREWORD

The writer purposes to write a series of papers bearing on the genesis or beginnings of the American materia medica. These articles will be based upon, and contain, the source-history material concerning substances, animal and mineral sparingly, but chiefly of plants, which the colonists, when they came to America, found the aborigines using in the treatment of diseases. They will also include the pioneer accounts of the medicinal plant drugs employed in domestic medication by the early settlers-some, of the virtues of which they learned from the natives, and some, a knowledge of which was brought with them from the old world. When the same species found here were not known of in their old homes across the water, plants related to or similar were used for like purposes to those plants which they had formerly known or used in their old world domestic herbalism. The latter knowledge was acquired by the people both abroad or upon our shores, not so much through professional sources as through the recorded physic plant lore of such works as John Gerarde's "Herball" (1599) and its later edition (1633) by Johnson, and from John Parkinson's "Theatrum Botanicum" or "Theater of Plantes" (1640)—both constituting the great mass of the then popular knowledge concerning simples.

The source-histories which we shall include are found scattered widely and fragmentarily in various historical and philosophical publications, while a very few are printed in book form. Such books now have become extremely rare; so rare, indeed, that the average reader never sees them. They are to be found only in the rare and priceless collections of the bibliophile and in great libraries the purpose of which is the acquisition and housing of old books and antiquities.

It is our intention to preface such source-material as we shall print by a sketch of the author, where any life-history is available, and a portrait when obtainable, and then to follow with the subject matter of the original work *verbatim et literatim*. When it is thought advisable or necessary to make any explanation, to clarify any doubtful or obscure passages, or to add botanical identification of plants mentioned only by common names, we shall make the needful comments by means of foot-notes.

In reproducing this source-material we shall reprint all the pertinent matter in the original treatises, giving the text as stated, including the original spelling, capitalization and punctuation, *unless otherwise indicated*, under each subject. The only change we shall make, thus differing from a *fac simile* reproduction, will be the use of modern type, and especially to replace the old style letters "f" and " \int " with the present-day form of s. In some instances we shall not reproduce, but abstract the substance of the subject-matter.

THE GENESIS OF THE AMERICAN MATERIA MEDICA.

Much of the source-material presented will undoubtedly appear trivial and useless to the average reader. Much of it even will seem mythical. It, however, must be taken into account that we are dealing with the primitive—the genesis or beginnings—written in a day when the simplest of medication was in vogue, when people were extremely credulous, and at a period when even the medical profession, let alone the laity, were going through a phase of disgusting isopathy, and when the stamp of signaturism had left its impress upon all forms of medical simpling. Belief in the marvelous virtues of simples prevailed among all classes, and the degree of therapeutic credulity was perhaps at its greatest height. Probably in another century our own claims to therapeutic wisdom may be considered just as unsound and untrustworthy as some of us now consider much of that of the centuries past when American H. W. F.



JOHN JOSSELYN, "Gent"



JOHN JOSSELYN, "GENT"

JOHN JOSSELYN, "Gent"

"The study of physical science in this country," writes Moses Coit Tyler, in his admirable and incomparable "History of American Literature," "began with the very settlement of the country. It is not strange that the men who came to the new world should have inspected it inquisitively, either for love of novelty or from love of gain, and the writings of the first Americans are strewn with sharp observations on the geography of America; on its minerals, soils, waters, plants, animals; on its climates, storms, earthquakes; on its savage inhabitants, its diseases, its medicines, and on the phenomena of the heavens as they appeared to this part of the earth. There were here, even in our earliest age, several men of special scientific inclination, such as William Wood,¹ John Josselyn,"

At a very early date in the history of the settlement of the new world there are occasional references in literature to American plants, and, rarely, some of them have meager notices of their native medicinal uses. These references, however, are practically inaccessible. Such references to plants, however, fortunately, came to be included in the treatises of such eminent European botanists as Dalechamps, Clusius, Lobel (after whom lobelia is named) and Alpinus. All of the works of these authors were published in the sixteenth century. At the beginning of the second third of the next century there appeared the earliest work of importance as concerns American botany, and one which included, with copper plates of all but one, thirty-seven newly-described Canadian plants. This pretentious effort was the work of a botanist of limited ability, who was also a doctor of medicine—Jacobus Cornuti²—and was printed in Paris, in 1635. This publication, though of but little more than two hundred pages (pp. 238), bears the long title, "Canadensium Plantarum, aliarumque nondum editarum Historia." This foreign treatise, which is renowned as being the first scientific contribution to the study of plants of North America, Cornuti was enabled to put forth through the aid of two brothers, the celebrated French botanists, John and Vespasian Robin, both of whom served separately as the head of the Royal Botanical Garden at Paris, and both of whom bore the title, Botanicus Regius, or Botanist to the King. Vespasian Robin was undoubtedly responsible for the descriptions of the American plants in Cornuti's history. After this pioneer effort by Cornuti we have nothing of importance for near a half century illustrating the medical and

¹ Author of "New England's Prospect" (1634, and republished in 1764). William Wood was a writer of more literary skill than Josselyn, but of less pronounced scientific proclivities. Wood is supposed to have come to New England five years before the above-mentioned date.

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² Jacob Cornut.

THE GENESIS OF THE AMERICAN MATERIA MEDICA.

economic flora of New England and Canada, until quaint John Josselyn came into American letters.

John Josselyn was the son of "Sir Thomas Josselyn, Knt., of Kent, whose name is at the head of a new charter obtained by Sir Ferdinando Gorges for his colonization scheme in America in 1639," but who did not come to this country. John Josselyn, as he himself states, was the only brother of Henry Josselyn, Esq., who for many years lived at Black Point in Scarborough, Maine, and with whom John tarried a large part of the time while in America. The Josselyns, we are told, were descended from "Carolus Magnus, King of France, with more certainty than the houses of Lorraine and Guise." Henry Josselyn was a man of consequence in the newly settled America, having been from about 1634 onward for forty years, says Tyler ("History of American Literature"), "a leading freeholder and magistrate in the province of Maine, and who, in life-long contests with white men and Indians, displayed an unslumbering activity of courage and of hate, a characteristic exactly touched by Whittier in a single line of 'Mogg Megone'—'Grey Josselyn's eye is never sleeping.' "

Of such aristocratic connection is our author, John Josselyn, who made two voyages to America, one in 1638, when he remained for about five months, and another in 1663, when he tarried for eight years. He came direct to Boston, where, upon arrival (July 3, 1638), he records his "being civilly treated by all I had occasion to converse with." Among those who so civilly received him were Mr. Winthrop, the governor, and the pulpit orator, John Cotton. Most of the time spent in America he resided with his brother, and here it was that he got together the material for his books. It is presumed that John Josselyn was a bachelor, and, thus unfettered by marital ties and having no known business, gave full rein to his curiosity and bent to "discover the natural physical and chyrurgical rarities of this new-found world."

Were it not for the writings of the cheerful author, Josselyn, "a man of everyday tastes and much inquisitiveness, who had a pleasing literary style and did not hesitate to couch his sentences in undisguised English, a writer with all the charm of directness and total lack of self-consciousness, we would know little of the early gardens and the medical knowledge of the plants of New England."³ His "New-England's Rarities Discovered," published in 1672, and from which we will make our first selection of source-history of the medicinal plants, should please every American who cares for a knowledge of American beginnings, while "An Account of Two Voyages to New England," made during the years 1638 and 1663," appeared in 1672, when the author had reached an advanced age. The second work shows a riper style and no less charming descriptions than his "Rarities." He devotes a section to New

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³ Edward Eggleston, in "The Transit of Civilization."

JOHN JOSSELYN, "GENT"

England plants and their medicinal uses, which gives us a graphic picture of early domestic medication in the colonies. Moreover, he records the prevalent diseases of the region, and notes some other items of interest to the investigator of early medical history in this country. In addition, a great list of plants is given, some of which are medicinal but for which he gives no therapeutic uses, which makes up the first and most complete botanical data up to this time concerning New England's flora. The names he gives in all instances are the common names, some of them being local, but mostly in agreement with the common appellations as given by Gerarde and Parkinson in England.

Of the author himself—who was he? A gentleman of ancient and aristocratic lineage, who employed his leisure time in unconsciously perpetuating his own name for all time and putting into the records facts and observations that give us of today a word-picture of the early times in America, and particularly the fullest and best account of the native medicinal plants, as well as a wide notation of many others, to some of which, though medicinal, he ascribes no alleged therapeutic properties. Of the time and exact place of his birth and place of death there is no record. All evidence, however, points to the facts of his having been born in England and having died there. That he was an old man when his last book was written is evident by his reference to the investigation of a plant found by a neighbor wandering in the woods in quest of his lost cattle. The man, bringing a portion of the plant for identification, was referred by Josselyn "to those that are younger and better able to undergo the pains and trouble to find out." His intention to close his declining years in peace and comfort is also evident from his declaration on page 151 of "Voyages:" "Henceforth you are to expect no more Relations from me. I am now return'd to my Native Countrey; and by the providence of the Almighty and the bounty of my Royal Soveraigness, am disposed to a holy quiet of study and meditation for the good of my soul; and being blessed with a transmentitation or change of mind, and weaned from the world, may take up for my word, non est mortale quod opto."

Josselyn's writings make interesting and instructive reading and show wide learning for his day. His discussions of mathematical, astronomical and natural phenomena show discernment and judgment. He was an acute observer and a good listener. He touched upon every phase of natural history plants, animals, insects, sea and fresh-water life—ethnology, geography, the stars and comets, though but little of astrology, then so much in vogue. Neither did he ignore manners and customs, religion and government. He gives good descriptions of the Indians and their customs, and considers morals in a way that would do justice to the cloth. Indeed, his moralizations and humanitarianism are both interesting, and show what manner of man he was. To be sure, Josselyn was sometimes gullible, but, on the other hand, often accurately pointed out the delusions of others. He was to some degree tainted by super-9

THE GENESIS OF THE AMERICAN MATERIA MEDICA.

stition, especially as to bewitchery, and yet he attempts to put a check on the extremes to which some others of his day seem to have gone. He also seemed to have shared in the prevailing notions as to the significance of comets in human affairs, yet he shows a good knowledge of the known astronomy of his day. As a rule he was not easily swayed from his judgments or deluded by the superstitions and vagaries of the time. True, Savage warns that Josselyn's narratives are curiosities, but must not be relied upon too implicitly. Nevertheless, they are, next to Wood's, the best for his times, and for medical information the most valued of any. That he practiced medicine, though not a doctor, is evident from his own statements. His literary style, though fair and cultured as a whole, is marred by his occasional slips into the vulgar to such a degree that one is made sure that he intends to call a spade only by that name. This is conspicuously evident from his language, probably very proper for his time, but not used in polite society today, where he refers to the sleeping boy and the hawk, and one of Ben Johnson's proverbs, applicable to thanks for his efforts in giving his Relations-language which, if copied here, would probably exclude this publication from the mails. The chronologies with which he concludes each of his books, though probably not exact, show a wide knowledge of world events. Those pertaining to American events are particularly valuable, especially those noting diseases and epidemics. Like most of the writers of his time, Josselyn falls into the defensive attitude of pleading for the truthful reception of reports of uncommon occurrences. It was not uncommon for early writers (as witness Peter Kalm in describing Niagara Falls) to forestall a doubtful reception of their statements in order to plead that they were not attempting, like some, to prey upon public credulity.

Edward Tuckerman, who edited Josselyn's "Rarities," wrote an introduction and made critical notes throughout, observes that Josselyn was "a man of polite reading. He quotes Lucan, Pliny and Du Bartas; he has Latin and Italian proverbs; he is acquainted with the writings of Mr. Perkins, that famous divine; with Van Helmont; with Sandys's 'Travels,' and with Capt. John Smith's. His curiosity in picking up 'excellent medicines' points to an acquaintance with physic; of his practicing which, there occur several instances. Nor is he, by any means, uninterested in prescriptions for the kitchen."

Being a gentleman of leisure, Josselyn spent altogether nearly nine years in this country, roaming at will the forests and mountains of Maine, prying into the secrets of nature, and recording much that is worth while. Though a

naturalist of some ability, he was once deluded by what he thought a strange fruit upon a tree. Prodding it, the "seeds" came out, stinging him beyond recognition. an incident that long remained a subject of mirth among the New England woodsmen. Longfellow deftly touches upon this incident in his tragedy of John Endicott, when he makes the innkeeper of Boston exclaim:

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"I feel like Maister Josselyn when he found the hornets' nest and thought it some strange fruit, until the seeds came out, and then he dropped it." Josselyn made good his ambition to discover the natural, physical and chyrurgical rarities of the new found world, and his section on the botany of the New England country stands out as a remarkable early production. In addition to the medicinal plants mentioned and their uses recorded, his artistic ability is shown by his intelligible drawings, which represent some of the earliest illustrations of plants in this country. Among these may be named the side-saddle plant (Sarracenia purpurea), which he called hollow-leaved lavender; the impatiens, which he terms humming bird tree; balmony, and probably the earliest drawing of the skunk cabbage, for the latter of which he knew no name. Though the last two figured prominently in subsequent early American medicine, Josselyn does not give any uses for them, and the last named, together with others and figures of what we can now easily recognize as those of the rattlesnake plantain and bunch-berry, and a supposed pyrola, he lists under "such plants as are proper to the country and have no name known to us."

Of the worth of Josselyn's labor there is no better judge than Professor Tuckerman, who sums up the status of our author in the botanical world. To those who are interested in medical notations, however, there is a still greater value to be placed upon Josselyn's records. Says Tuckerman: "Josselyn himself is, indeed, little more than a herbalist; but it is enough that he gets beyond that entirely unscientific character. He certainly botanized, and made botanical use of Gerard and his other authorities. The credit belongs to him of indicating several genera as new which were so, and peculiar to the American Flora. It may at least be said that, at the time he wrote, there is no reason to suppose that any other person knew as much as he did of the botany of New England. 'The plants of New England,' he says in his "Voyages," p. 59, 'for the variety, number, beauty and virtues may stand in competition with the plants of any countrey in Europe. Johnson hath added to Gerard's "Herbal" three hundred, and Parkinson mentioneth many more. Had they been in New England, they might have found a thousand, at least, never heard of nor seen by any Englishman before.' Nor did our author fail to adorn his 'Rarities' with recognizable figures, as well as descriptions, of some of these New American plants." (Introduction to "New England's Rarities.")

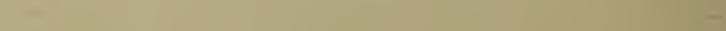
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NEW-ENGLANDS RARITIES DISCOVERED



NEW-ENGLANDS RARITIES DISCOVERED

"NEW-ENGLANDS RARITIES DISCOVERED"

[Josselyn's first book is the following—F.] :*

NEW-ENGLANDS RARITIES **DISCOVERED:** IN Birds, Beasts, Fishes, Serpents, and Plants of that Country. TOGETHER WITH The Physical and Chyrurgical Remedies wherewith the Natives constantly use to Cure their Distempers, Wounds, and Sores. ALSO A perfect Description of an Indian SQUA, in all her Bravery; with a POEM not improperly Conferr'd upon her. LASTLY A CHRONOLOGICAL TABLE of the most remarkable Passages in that Country amongst the English. Illustrated with Cuts.

BY JOHN JOSSELYN, GENT.

London, Printed for G. Widdowes, at the Green Dragon, in St. Paul Church yard, 1672.

[Being literal transcripts, except where otherwise shown, with comments in foot-notes, upon the medical and surgical portions only of this rare work.—F.]

to show that the notes are not a portion of the original books; secondly, that they are either original or collected from authentic sources by the writer, though in many instances he has drawn freely upon the comments appended to the reprint (1865) of "Rarities" by the late distinguished botanist, Professor Edward Tuckerman, A.M. To the latter he must acknowledge the starting points from which to trace many of the medicinal plant species for which only local and common names are given by

^{*} The author of these papers may be pardoned, perhaps justified, he hopes, for the signing of his name to each of the foot-notes which he has worked out to elucidate, where possible, the text of Josselyn's works. This he has done for two reasons: First,

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[The materials pertinent to our purpose in Josselyn's "Rarities" may well be introduced by the following passage concerning the capricious climate of the coast of New England and the effect upon susceptible inhabitants.—F.]

"The Sea-Coasts [p. 3] are accounted wholesomest; the East and South winds coming from Sea, produceth warm weather; the Northwest coming over land causeth extremity of Cold, and many times strikes the Inhabitants, both *English* and *Indians*, with that sad Disease called there the Plague of the back, but with us *Empiema*." ⁴

[Josselyn gives us little enlightenment in "Rarities" concerning the diseases of New England by reason of his use only of common folk names. In his "Voyages" he names several more, and most of which are evident even from their common names. One is explanatory of "griping of the guts" mentioned below. Of the prevalent diseases he says [p. 63]—F.]:

"The Black Pox, the Spotted Feaver, the Griping of the Guts, the Dropsie, and the Sciatica, are the killing diseases in New England."⁵

⁴ Empyema is pus in any cavity of the body, but when used unqualified refers to pus in the pleural cavity. Pleurisy and pleuro-pneumonia were very common and often fatal diseases among the early colonists. Empyema (then sometimes called "putrid pleurisie") the result of these was equally common and destructive.--(Felter.)

⁵ The *Black Pox* referred to by Josselyn would seem to be the malignant type of variola or smallpox, a disease very common in the early settlement, and from which several deaths are recorded in his "Voyages."

Spotted Fever is a name that has been applied to three disorders: Typhus fever (typhus petechialis), cerebro-spinal meningitis, and Rocky Mountain fever. The name is most commonly applied to the second named. Whether Josselyn's "Spotted Feaver" was typhus or cerebro-spinal fever is difficult to fix, as the latter was confounded with typhus until the difference was pointed out by Veusseux, of Geneva, in 1805. Moreover, as Tyson declares, it is even now difficult to distinguish the one from the other. As typhus fever visited America very early, it is probably safe to assume that Josselyn's malady might well have been the well-spotted cases of typhus. It is equally possible to have been typhoid fever—an early invader of our colonies—and not differentiated from typhus until the last century. While from the thirteenth century on the great epidemics of Europe were cerebro-spinal fever, when not small pox and Oriental plague, and sometimes typhus fever, the cerebro-spinal fever did not occur in known epidemics under its own name in America until 1806, when it invaded Medfield, Mass.; broke out in Canada in 1807; in Virginia, Kentucky and Ohio in 1808, and in New York and Pennsylvania in 1809. (See Tyson, "Practice of Medicine," for details.) It disappeared

Josselyn. For the gathering of the larger part of the botanical references and noting them in more modern nomenclature, and for the formulation of medical definitions (where not otherwise noted), and for the historical materials included, the writer alone is responsible. Such material in the text (exclusive of foot-notes) as is not a part of the original books by Josselyn, but is his own, the writer has included in brackets, thus: [F.]. This is only true of the brackets with the initial F. Other matter bracketed is evident. The writer has taken the liberty to place headings (not always in the original) in CAPS AND SMALL CAPS to introduce the remedies, and has relegated the disorders to a place following the headings. Otherwise these reproductions, from Josselyn, at least, though not fac simile, are literal as to spelling, phraseology and capitalization with those of the literal reprints of "Rarities" and "Voyages" by William Veazie, of Boston, in 1865.

[Then the author, having attended to general considerations, takes up his outline concerning the natural, medical and surgical (chyrurgical) rarities and gives us our first extended account of matters medical in New England as follows—F.]:

[Page 6] "Having given you some short Notes concerning the Country in general, I shall now enter upon the proposed Discovery of the Natural, Physical, and Chyrurgical Rarities; and that I may methodically deliver them unto you I shall cast them into this form: 1. Birds. 2. Beasts. 3. Fishes. 4. Serpents and Insects. 5. Plants, of these, 1. such plants as are common with us. 2. of such Plants as are proper to the country, 3. of such plants as are proper to the Country and have no name known to us, 4. of such Plants as have sprung up since the *English* Planted and kept Cattle there; 5. of such Garden Herbs (amongst us) as do thrive there, and of such as do not. 6. Of Stones, Minerals, Metals and Earths."

FIRST, OF BIRDS.

THE GOOSE [pp. 9-10].—"The Bloody-Flux Cured."

"A Friend of mine of good Quality living sometime in *Virginia* was sore troubled for a long time with the *Bloody-Flux*,^{5a} having tryed several Remedies by the advice of his Friends without any good effect, at last was induced with a longing desire to drink the *Fat Dripping* of a Goose newly taken from the Fire, which absolutely cured him, who was in despair of ever recovering his health again."

THE GRIPE [p. 10].—"A remedy for the Coldness and pain of the Stomach."

from both sides of the Atlantic in 1816, to reappear in France in 1822-3, and has since appeared from time to time in various parts of the world.

Griping of the Guts is not so entirely clear, though from the literal meaning of tormina or twisting pain or colic it would point to that ever-common early and fatal disease, dysentery; but, as no alvine passages are mentioned, may it not have been appendicitis or some allied painful and fatal disease? In "Voyages" Josselyn explains more fully a somewhat similar condition—"griping of the belly (accompanied with Feaver and Ague) which turns into a bloody-flux, a common disease in the Countrey, which together with smallpox hath carried away abundance of their children." This is evidently a debilitating acute inflammatory diarrheal disorder terminating in dysentery, for dysentery and bloody-flux are and have been always synonymous terms. Dunglison (Medical Dictionary) states that "water gripes" was "a popular name for a dangerous disease of infancy, common in England, which does not differ essentially from the cholera infantum of this country."

Dropsie needs no explanation except to note that it, a symptom, was undoubtedly regarded as a disease per se in Josselyn's time, as it was up to the middle of the nine-teenth century.

Sciatica, now accepted as a neuritis of the great sciatic nerve, can hardly have been, even in colonial days, a "killing disease." Some other disorder must have passed current with the laity under that name, or the sciatica have been a concomitant of some fatal disorder, as diabetes, or pressure of malignant growths.

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^{5a} Dysentery. (Felter.)

P

"The Skin of a *Gripe*, drest with the doun on, is good to wear upon the Stomach for the Pain and Coldness of it."

THE OSPREY [p. 11].—"A Remedy for the Tooth-ach."

"Their Beaks excell for the Tooth-ach, picking the Gums therewith till they bleed."

THE WOBBLE [p. 11].—"For Aches."

"Our way (for they are very soveraign for Aches) is to make Mummy of them, that is, to salt them well, and dry them in an earthen pot well glazed in an Oven; or else (which is the better way) to burn them under ground for a day or two; then quarter them and stew them in a Tin Stewpan, with a very little water."

THE LOONE [p. 12].—"The Loone is a Water Fowle a little in shape to the Wobble, and as virtual for Aches, which we order after the same manner."

SECONDLY, OF BEASTS.

THE BEAR [p. 14].—"For Aches and Cold Swellings."

"Their Grease is very good for Aches and Cold Swellings, the *Indians* anoint themselves therewith from top to toe, which hardens them against the cold weather."

"For Pain and Lameness upon Cold."

"One *Edw. Andrews,* being foxt,^{5b} and falling backward cross a Thought^{5c} in a Shallop or Fisher-boat, and taking cold upon it, grew crooked, lame and full of pain, was cured, lying one Winter upon Bear's Skins newly flead off, with some upon him, so that he sweat every night."

THE WOLF [p. 16]—"For old Aches."

"A black *Wolf* Skin is worth a *Beaver* Skin among the *Indians*, being highly esteemed for helping old Aches in old people; worn as a Coat."

THE OUNCE (or Wildcat) [p. 16].—"For Aches and Shrunk Sinews."

"Their Grease is soveraign for all manner of Aches and shrunk Sinews."

THE RACCOON [p. 17].—"For Bruises and Aches."

"Their Fat is excellent for bruises and Aches."

THE BEAVER [pp. 18-19].—"They have all of them four Cods hanging outwardly between their hinder legs, two of them are soft or oyly, and two solid or hard. The *Indians* say they are *Hermaphrodites*."

"For Wind in the Stomach."

"Their solid Cods are much used in Physick; Our English-women in this Country use the powder grated, as much as will lye upon a shilling in a draught of Fiol Wine, for Wind in the Stomach and Belly, and venture many times in such cases to give it to Women with Child." THE MOOSE-DEER [pp. 19-20].—"Moose Horns Better for Physick Use than Harts Horns."

18

^{5b} "Stupefied with drink" (Webster's Dict.) (Felter.) ^{5c} Thwart. (Felter.) "Their Horns are far better (in my opinion) for Physick than the Horns of other Deer, as being of a stronger nature: As for their Claws, which both *Englishmen* and *French* make use of for Elk, I cannot approve so to be from the Effects, having had some trial of it;"

"For Children breeding Teeth."

"The *Indian Webbes* ^{5d} make use of the broad Teeth of the Fawns to hang about their Childrens Neck when they are breeding of their Teeth."

THE JACCAL⁵e [p. 22].—"Their Grease is good for all that Fox Grease is good for, but weaker."

THIRDLY, OF FISHES.

THE STURGEON [p. 32].—"Of whose Sounds is made Isinglass,—a kind of Glew much used in Physick."

THE COD [p. 32].—"To stop Fluxes of Blood."

"In the Head of this Fish is found a Stone, or rather a Bone, which, being pulveriz'd and drank in any convenient liquor, will stop Women's overflowing Courses notably: Likewise,——

"For the Stone [p. 33].

"There is a Stone found in their Bellies, in a Bladder against their Navel, which, being pulveriz'd and drank in White-wine Posset⁶ or Ale, is present Remedy for the Stone."

"To heal a green Cut."

"About their Fins you may find a kind of Lowse, which healeth a green Cut in short time."

"To restore them that have melted their Grease."

"Their Livers and Sounds eaten, is a good Medicine for to restore them that have melted their Grease."

THE DOG-FISH [p. 33].—"For the Toothach."

"Upon whose Back grows a Thorn two or three Inches long, that helps the Toothach, scarifying the Gums therewith."

THE TORTOUS (The Land Turtle) [p. 34].—"For the Ptisick, Consumption and Morbus Gallicus."

"They are good for the Ptisick and Consumptions, and some say the Morbus Gallicus."⁷

wine and water], a preparation of milk curdled with wine" (Gould, Practitioner's Dict.); "Milk curdled with wine, treacle or any acid" (Hooper's Med. Dict. [1850]); Posset, n. (W. *posel*, curdled milk posset, "a beverage composed of hot milk and curdled by some strong infusion, as by wine, etc., much in favor formerly; 'I have drugged their posset' (Shakespeare)" Webster's Dict.) (Felter.)

7 Morbus gallicus is "the venereal disease" (Hooker's Dict. [1850]); syphilis (Dorland and others). (Felter.)

^{5d} Married squaws "living with their husbands" (Josselyn.) (Felter.)

^{5e} Probably the gray fox (Vulpes Virginianus Schreb. (Tuckerman). (Felter.)

⁶ Posset.—The term posset, now obsolete, is a frequent one in early colonial medical references and general literature. It had reference to milk coagulated with wine, beer, acids, treacle or infusions. Lexicographers note it variously, thus: "Posset [posca, sour

THE SOILE (Sea Calf) [p. 35].—"For Scalds and Burns, and for the Mother."

"The Oyl of it is much used by the Indians, who eat of it with their Fish, and anoint their limbs therewith, and their Wounds and Sores: It is very good for Scalds and Burns; and the fume of it, being cast upon Coals, will bring Women out of the Mother-Fits." ^{7a}

THE SPERMA-CETI WHALE [p. 35].—"For Bruises and Aches."

["Cut into small pieces and boiled in Cauldrons, yielded plenty of Oyl; the Oyl put into Hogsheads, and stow'd into Cellars for some time, candies at the bottom, it may be one quarter; then the Oyl is drawn off, and the Candied Stuff put up into convenient Vessels is sold for Sperma-Ceti, and is right Sperma-Ceti."]

"The Oyl that was drawn off Candies again and again, if well ordered; and is admirable for Bruises and Aches."

FOURTHLY, OF SERPENTS, AND INSECTS.

THE POND-FROG [p. 38].—"For Burns, Scalds, and Inflammations."

"They are of a glistering brass colour, and very fat, which is excellent for Burns and Scaldings, to take out the Fire, and heal them, leaving no Scar; and is also very good to take away any Inflammation."

THE RATTLESNAKE ^{7b} [p. 39].—"For frozen Limbs, Aches, and Bruises."

"They have Leafs of Fat in their Bellies, which is excellent to annoint frozen Limbs, and for Aches and Bruises wondrous soveraign. Their Hearts, swallowed fresh, is a good Antidote against their Venome, and their Liver (the Gall taken out) bruised and applied to their Bitings is a present Remedy."

FIFTHLY, OF PLANTS.

BLEW FLOWER-DE-LUCE⁸ [p.41].—"To provoke Vomit, and for Bruises."

"It is excellent for to provoke Vomiting, and for Bruises on the Feet or Face."

Dog-stones⁹ [p. 42] (a kind of Satyrion).—"To procure Love."

"I once took notice of a wanton Womans compounding the solid Roots of this Plant with Wine, for an Amorous Cup; which wrought the desired effect."

Adders Tongues¹⁰ [p. 42].—"I . . . did then make Oyntment of the Herb new gathered."

⁸ Iris, one of the blue-flowered species, probably Iris versicolor L., the Larger Blue Flag. Josselyn says: "They Flower in June, and grow upon dry sandy Hills as well as in low wet Grounds." (Felter.)

⁹ Orchis L. (?). Probably a species of Platanthera Rich. [Gray's Manual] (Tuckerman), now classed as species of Habenaria. (Felter.) ¹⁰ Ophioglossum vulgatum L. (Felter.)

⁷^a Pronounced Mot'her-fits (Saxon); hysterical paroxysms. (Felter.)

^{7b} "Who Poysons with a Vapour that comes through two crooked Fangs in their mouth" (Josselyn). (Felter.)

WATER PLANTANE¹¹ [p. 42], "here Water-suck leaves."—"For Burns and Scalds, and to draw Water out of swell'd Legs."

"It is much used for Burns and Scalds, and to draw water out of swell'd Legs."

WHITE HELLEBORE¹² [p. 43], "which is the first Plant that springs up in this Country, and the first that withers; it grows in deep black Mould and Wet, in such abundance, that you may in a small compass gather whole Cart-loads of it."

"Wounds and Aches cured by the Indians. For the Toothach. For Herpes milliares."

"The Indians Cure their Wounds with it, annointing the Wound first with Raccoons greese, or Wild-Cats greese, and strewing upon it the powder of the Roots; and for Aches they scarifie the grieved part, and annoint it with one of the aforesaid Oyls, then strew upon it the powder: The powder of the Root put into a hollow Tooth, is good for the Tooth-ach: The Root sliced thin and boyled in Vinegar, is very good against *Herpes Milliaris*." ¹³

WOODBINE¹⁴ [p. 45].—"For swell'd Legs."

"Wood-bine, good for hot swellings of the Legs, fomenting with the decoction. and applying the *Feces* in the form of *Cataplasme*."

¹¹ Alisma Plantago aquatica L. (See also Josselyn's "Voyages," p. 80). (Felter.) ¹² Veratrum viride Aiton; Green Hellebore, American White Hellebore, or Indian Poke. This so closely resembles the White Hellebore of Europe (Veratrum album, undoubtedly familiar to Josselyn) that the former often was mistaken by others as well for the latter, and called white hellebore. (Felter.)

¹³ Herpes milliaris here probably refers to that one of the three anciently recognized forms of herpes, later put in the group of three others, by Bateman, as "Herpes phlyctenodes (H. miliaris)." It was known commonly as Miliary Tetter. Under the head of Herpes miliaris. The miliary tetter. Hooper (Med. Dict., 1850) says: "This breaks out indiscriminately over the whole body; but more frequently about the loins, breast, perinæum, scrotum and inguina, than in other parts. It generally appears in clusters, though sometimes in distinct rings; or circles of very minute pimples, the resemblance of which to the millet-seed has given rise to the species. The pimples are at first, though small, perfectly separate, and contain nothing but a clear lymph, which, in the course of the disease, is excreted upon the surface, and there forms into small distinct scales; these, at last, fall off, and leave a considerable degree of inflammation below, and still continues to exude fresh matter, which likewise forms into cakes, and so falls off as before. The itching, in this species of complaint, is always very troublesome; and the matter discharged from the pimples is so tough and viscid, that everything applied to the part adheres, so as to occasion much trouble and uneasiness on its being removed." Dunglison (Med. Dict.) refers to it under Bateman's classification (see above), but later lexicographers ignore it and ordinary text-books do not refer to it under the name Herpes miliaris. From the description by Hooker one cannot escape the suspicion that it might be a papulo-vesicular form of eczema terminating in the weeping variety.

Herpes zoster is possible, but the severity of the symptoms (except in the middle-aged, in which gangrenous sores sometimes follow) make it quite improbable. (Felter.)

¹⁴ Meaning uncertain, as the woodbinde, or honisuckles of the Old World herbalists and our five-leaved Woodbine, *Psedera quinquefolia* (L.) Green, (*Ampelopsis quinquefolia* Michx.), or Virginia Creeper, bear similar common names. Tuckerman states that our American woodbines are distinct from those of Europe. (Felter.)

SALOMONS-SEAL¹⁵ [p. 45], "of which there are three kinds; the first,* common in *England*, the second, *Virginia Salamons-Seal*,[†] and the third,[‡] differing from both, is called *Treacle Berries*, having the perfect tast of Treacle when they are ripe; and will keep good along while; certainly a very whole-some Berry, and medicinable."

KNOBBY CRANES BILL.

RAVENS-CLAW¹⁶ [p. 45].—"For Agues."

"Ravens-Claw, which flowers in May, and is admirable for Agues."

OAK OF HIERUSALEM ¹⁷ [p. 46].

OAK OF CAPPADOCIA¹⁸ [p. 46].—"Achariston¹⁹ is an excellent Medicine for stopping of the Lungs upon Cold, Ptisick, &c., both much of a nature, but Oak of *Hierusalem* is stronger in operation; excellent for stuffing of the Lungs upon Colds, shortness of Wind, and the Ptisick; maladies that the Natives are often troubled with: I²⁰ helped several of the Indians with a Drink made of two Gallons of *Molosses wort*, (for in that part of the Country where I abode, we made our Beer of Molosses, Water, Bran, chips of Sassafras Root, and a little Wormwood,²¹ well boiled,) into which I put of Oak of Hierusalem, Catmint,²² Sow-thistle,²³, of each one handful, of Enula Campana²⁴ one Ounce, Liquorice scrap'd, bruised and cut in pieces, one Ounce, Sassafras Root cut into thin chips, one Ounce, Anny-seed and sweet Fennelseed, of each one Spoonful bruised; boil these in a close Pot, upon a soft Fire to the consumption of one Gallon, then take it off, and strein it gently; you may if you will boil the streined liquor with Sugar to a Syrup, then when it is Cold, put it up into Glass Bottles, and take thereof three or four spoonfuls at a time, letting it run down your throat as leasurely as possibly you can; do thus in the Morning, in the Afternoon, and at Night going to Bed."

¹⁵ [*] Is probably Polygonatum biflorum (Walt.) Ell, nearly like Convallaria muliflora of Europe; [†] Smilacina stellata (L.) Desf. (Polygonatum Virginianum of Gerard's Herbal and Polygonatum Canadense of Cornuti); [‡] probably Smilacina racemosa (L.) Desf. our False Solomon's Seal or False Spikenard. (Felter.)

¹⁶ Geranium maculatum L., Wild Cranesbill. The two common names given by Josselyn are most likely synonymous, and there is little question but that the plant referred to is our Wild Geranium or Cranesbill. (Felter.)

¹⁷ Chenopodium Botrys L., Jerusalem Oak or Feather Geranium, introduced from Europe. (Felter.)

¹⁸ Ambrosia elaitor L. (Tuckerman). (Felter.)

¹⁹ Achariston, a term for ancient and medieval pharmaceuticals, now obsolete. "Achariston—Acharistus signifies thankless. Ætius and Galen describe some compositions of singular efficiency under the name; because, as they cured quickly, the patient valued them the less, and so made no returns for their benefits" (Motherby). (Felter.)
²⁰ Evidence that Josselyn practiced domestic and semi-professional medication. (Felter.)
²¹ Artemisia Absinthium L. Wormwood. (Felter.)
²² Nepeta Cataria L. Catnip. (Felter.)
²³ Sonchus species. (Felter.)
²⁴ Inula Helenium L. Elecampane. (Felter.)

MAPLE²⁵ [p. 47].—"A way to draw out Oyl of Akrons, or the like, &c. "Maple; of the ashes of this Tree the Indians make a lye, with which they force out Oyl from Oak Akorns that is highly esteemed by the Indians."

"The making of Oyl of Akrons. To strengthen weak Members. For Scall'd Heads" [pp. 48-49].

"Out of the white Oak ²⁶ Acorns, (which is the Acorn Bears delight to feed upon): The Natives draw an Oyl, taking the rottenest Maple Wood, which being burnt to ashes, they make a strong lye therewith, wherein they boyle their white Oak-Acorns until the Oyl swim on the top in great quantity; this they fleet off, and put into bladders to annoint their naked Limbs, which corroborates them exceedingly; they eat it likewise with their Meat, it is an excellent and clear sweet Oyl: Of the Moss that grows at the roots of the white Oak the *Indesses* make a strong decoction, with which they help their *Papouses* or young Childrens scall'd Heads."

ALDER²⁷ [p. 49],—"For a Cut with a Bruse."

"Alder; an Indian Bruising and Cutting of his Knee with a fall, used no other remedy, than Alder Bark, chewed fasting, and laid to it, which did soon heal it."

"To Take Fire out of a Burn."

"The decoction is also excellent to take the Fire out of a Burn or Scalld." "For Wounds and Cuts."

"For Wounds and Cuts make a strong decoction of Bark of Alder, pour of it into the Wound, and drink thereof."

FILBERD²⁸ [p. 50].—"For sore Mouths, falling of the Pallat."

"Filberd, both with hairy husks upon the Nuts, and setting hollow from the Nut, and fill'd with a kind of water of an astringent taste; it is very good for sore Mouths, and for falling of the Pallat, as is the whole green Nut before it comes to Kernel, burnt and pulverized."

COALS OF BIRCH [p. 51].—"Coals of Birch pulverized and wrought with the white of an Egg to a Salve, is a gallant Remedy for dry scurvy Sores upon the Shins; and for Bruised Wounds and Cuts."

"Birch, white ²⁹ and black; ³⁰ The bark of Birch is used by the *Indians* for bruised Wounds and Cuts, boyled very tender, and stamped betwixt two stones to a Plaister, and the decoction thereof poured into the wound; And also to fetch the Fire out of Burns and Scalds."

Indian process of producing oils by means of saponification. (Felter.)
26 Quercus alba L. White Oak. (Felter.)
27 Alnus species (Tuckerman). (Felter.)
28 Corylus rostrata Aiton (Beaked Hazel) and Corylus americana Walt. (Common Hazel), (C. americanum Wangenheim, according to Tuckerman). (Felter.)
29 Betula alba L. Paper Birch, Canoe Birch, or White Birch. (Felter.)
30 Betula lenta L. Sweet Birch, Cherry Birch, Black Birch. (Felter.)
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²⁵ The preceding "Achariston" and its method of preparation represents one of the few primitive pharmacals and pharmacal operations, mentioned by Josselyn; the second —the method of "drawing out" or abstracting "Oyl of Akrons"—reveals vaguely the

SPUNK³¹ [p. 52].—"For the Gout, or any Ach."

"Spunk, an excrescence growing out of black Birch, the Indians use it for Touchwood; and therewith they help the Sciatica, or Gout of the Hip, or any great Ach, burning the Patient with it in two or three places upon the Thigh, and upon certain Veins."

INDIAN WHEAT ³² [p. 52].—"To ripen any Impostume ³³ or Swelling. For sore Mouths."

"Indian wheat, of which there is three sorts, yellow, red, and blew; ... excellent in *Cataplasms*, to ripen any Swelling or impostume. The decoction of the blew Corn, is good to wash sore Mouths with."

BASTARD CALAMUS AROMATICUS³⁴ [p. 53].—"To keep the Feet warm."

"The English make use of the Leaves to keep their Feet warm."

TOBACCO ³⁵ [p. 54].—"For Burns and Scalds."

"With a strong decoction of Tobacco they cure Burns and Scalds, boiling it in Water from a Quart to a Pint, then wash the Sore therewith, and strew on the powder of dryed Tobacco."

HOLLOW-LEAVED LAVENDER ³⁶ [p. 55].—"For all manner of Fluxes."

"It is excellent for all manner of Fluxes."

MAIDEN HAIR OR CAPPELLUS VENERIS VERUS³⁷ [p. 55], "which ordinarily is half a Yard in height. The *Apothecaries* for shame now will substitute

³² Zea Mays L. Maize or Indian corn. (Felter.)

³³ Abscess. (Felter.)

³⁴ Acorus Calamus L. Calamus or Sweet Flag. It was an early custom of the colonists to use the leaves of the sweet flag to cover cold floors, after the manner of using rushes in England (Tuckerman). Owing to their pleasant smell, the leaves were used also in a similar manner "for strewing on the floor of the cathedral at Norwich on festival days" (Hooker). (Felter.)

³⁵ Nicotiana Tabacum L. The following occurs in "New-Englands Rarities" [p. 54]: "Tobacco. There is not much of it Planted in New-England. The Indians make use of a small kind with short round leaves-called Pooke." Josselyn, in "Two Voyages," also says: "The Indians of New-England use a small, round leafed tobacco, called by them or the fishermen poke. It is odious to the English." From Tuckerman's comments (see N. E. Rarities, reprint, p. 104) we learn: "The name, poke, or pooke-if it be, as is supposable, the same with 'puck, smoke' of the Narragansett vocabulary of R. Williams (Hist. Coll., vol. v, p. 84)—was perhaps always indefinite, and, since Cutler's day, has been applied in New England to the green hellebore (Veratrum viride Aiton); but this was not, it is evident, the poke of the first settlers. The name is also given to Phytolacca decandra L. (the Skoke of Cutler), and the hellebore apparently distinguished from that as Indian poke; but the application of the name to the former, at least, probably had its origin among the whites." (Felter.) ³⁶ Sarracenia purpurea L. (Side-saddle Flower, Pitcher Plant or Huntsman's Cup), of which Josselyn gives an excellent and recognizable, though not the earliest, drawing. (Felter.)

³⁷ Adiantum pedatum L. (according to Tuckerman). Evidently substitution is not a modern pharmaceutical device. (Felter.)

³¹ Polyporus (Michx.) species. The method of applying Touchwood as mentioned shows the Indians' acquaintance with the method of counter-irritation by means of moxa. (Felter.)

Wall-Rue no more for Maiden Hair, since it grows in abundance in New-England, from whence they may have good store."

PIROLA³⁸ [p.55].—"Two kinds: both of them excellent Wound Herbs." SEA-TEARS³⁹ [p. 56].—"For Scurvy and Dropsie."

"They are good for the Scurvy and Dropsie, boiled and eaten as Sallade, and the broth drunk with it."

INDIAN BEANS⁴⁰ [p. 57].—"Indian Beans, better for Physick use than other Beans."

"Indian Beans, falsely called French beans, are better for Physick and Chyrurgery than our Garden Beans. Probatum est."



YELLOW SQUASH [p. 57].—"Much eaten by the Indians and the English yet they breed the small white Worms (which Physitians call Ascarides), in the long Gut that vex the Fundament with a perpetual itching, and a desire to go to stool."

³⁸ Pyrola. From figures shown, simply checkered leaves, Josselyn could have meant

no other than the *Epipactis pubescens* (Willd.) A. A. Eaton; (Goodyera pubescens (Willd.) Robert Brown). The Rattlesnake Plantain. (Felter).

³⁹ Conjectured by Tuckerman probably to have been *Cakile americana* Nutt. (now *Cakile edentula* (Bigl.) Hooker); American Sea-rocket. (Felter.)

40 Probably Phaseolus vulgaris L., the common bean of American gardens. See also Josselyn's "Voyages," pp. 73-74. (Felter).

WATER-MELLON⁴¹ [p. 57].—"For heat and thirst in Feavers."

"It is often given to those sick of Feavers and other hot Diseases with good success."

NEW-ENGLAND DAYSIE, OR PRIMROSE⁴² [p. 58].—"For Burns and Scalds."

"It is very good for Burns and Scalds."

"AN ACHARISTON, OR MEDICINE DESERVING THANKS."

"An *Indian* whose Thumb was swell'd, and very much inflamed, and full of pain, increasing and creeping along the wrist, with little black spots under the Thumb against the Nail; I cured it with this *Umbellicus veneris* Root and all, the yolk of an egg, and wheat flower. *f. Cataplasme*."

BRIONY OF PERU⁴³ [p.58] ("we call it though grown here) or rather *Scammony*; some take it for *Mechoacan*: The green Juice is absolutely Poyson; yet the Root when dry may safely be given to strong Bodies."

WILD DAMASK ROSES ⁴⁴ [p. 58].—"Single, but very large and sweet, but stiptick."

SWEET FERN ⁴⁵ [p. 58].—"Sweet in taste, but withal astringent. For Fluxes.

"The People boyl the tender tops in *Molosses* Beer, and in Possets for Fluxes, for which it is excellent."

BILL BERRIES ⁴⁶ [pp. 59-60], "two kinds, Black and Sky Coloured, which is more frequent. To cool the heat of Feavers, and quench Thirst."

"They are very good to allay the burning heat of Feavers, and hot Agues, either in Syrup or Conserve . . . or for cold Stomachs, in Sack."

SUMACH ⁴⁷ [p. 60].—"For Colds."

"The *English* used to boyl it in Beer, and drink it for Colds; and so do the *Indians*, from whom the English had the Medicine."

41 Citrullus vulgaris Schrad (Cucurbita Citrullus L.). Watermelon. (Felter.)

⁴² No doubt our pretty Saxifraga virginiensis Michx., or Early Saxifrage (Tuckerman). (Felter.)

⁴³ Probably Convolvulus sepium L., the Great Bind-weed or Hedge Bind-weed. Mechoacan is the "Indian briony, or briony or scammony of America" from the Caribbee Isles. (Felter.)

⁴⁴ Rosa Carolina L. (Tuckerman). This is probably the Carolina Rose, noticed also by other early writers. (Felter.)

⁴⁵ Comptonia asplenifolia L., or Sweet Fern [now listed Myrica asplenifolia, L. (Felter)], according to Emerson ("Trees and Shrubs of Mass."), still used (middle of nineteenth century) in New England for "molasses beer" for the same purposes mentioned above (Tuckerman).

⁴⁶ Vaccinium pennsylvanicum Lam. (Low Sweet or Early Sweet Blue-Berry), and Vaccinium corymbosum L. (High or Swamp Blue-Berry), were the species mostly used (Tuckerman). They were among the fruits called Whortleberries, or the Attitaash of the Indians ("some opening, some of a binding nature; when dried they were used like currants and called Sautash" (R. Williams). (Felter.)

⁴⁷ Rhus, species not certain, but possibly the Rhus typhina L., or Staghorn Sumach. Wood ("New England's Prospect") calls it "dear shumach," which is probably synonymous with Staghorn Sumac. (Felter.)

WILD CHERRY ⁴⁸ [p.61].—"For Fluxes. good for Fluxes."

BOARD-PINE⁴⁹ [pp. 61-62].—"For Wounds."

"It yields a very soveraign Turpentine for the Curing of desperate Wounds."

"For Stabbs."

"The *Indians* make use of the Moss boiled in Spring Water, for Stabbs, pouring in the Liquor, and applying the boiled Moss, well stamp'd or beaten betwixt two stones."

"For Burning and Scalding."

"And for Burning and Scalding, they first take out the fire with a strong decoction of Alder Bark, then they lay upon it a Playster of the bark of *Board Pine*, first boyled tender, and beat to a Playster betwixt two stones."

"To take Fire out of a Burn."

"One Christopher Lux; a Fisher-man, having burnt his Knee Pan, was healed again by an Indian Webb, or Wife (for so they call those Women that have Husbands;) She first made a strong decoction of Alder bark, with which she took out the Fire by Imbrocation, or letting of it drop upon the Sore, which would smoak notably with it; then she Playstered it with the Bark of Board Pine, or Hemlock Tree, boyled soft and stampt betwixt two stones, till it was as thin as brown Paper, and of the same Colour, she annointed the Playster with Soyles Oyl, and the Sore likewise, then she laid it on warm, and sometimes she made use of the bark of the Larch Tree."

"To eat out proud Flesh in a Sore."

"And to eat out the proud Flesh, they take a kind of *Earth Nut* ⁵⁰ boyled and stamped, and last of all, they apply to the Sore the Roots of *Water Lillies*, boiled and stamped betwixt two stones, to a Playster."

FIRR TREE [pp. 62-63].—"For Stitches."

"The Firr Tree; or Pitch Tree,⁵¹ the Tar that is made of all sorts of Pitch Wood is an excellent thing to take away those desperate Stitches of the Sides, which perpetually afflicteth those poor People that are stricken with the Plague of the Back." ⁵²

Note.—"You must make a large Toast, or Cake slit and dip it in the Tar, and bind it warm to the Side."

49 Pinus Strobus L., White Pine. Compare Josselyn's "Voyages," p. 64. (Felter.)
50 Apios tuberosa Moench. Ground Nut, Wild Bean. (Felter.)
51 Abies balsamea (L.) Mill. Balsam or Balm of Gilead Fir. See also Josselyn's
"Voyages," p. 66. (Felter.)
52 Empyema. (Felter.)

⁴⁸ Choke Cherry (*Cerasus virginiana* (L.) D. C. and the Wild Cherry (*Cerasus serotina* (Ehrh.) D. C.), are meant (Tuckerman). These species are now listed in Gray's Botany (seventh ed.) under *Prunus*; the first as *Prunus virginiana* L. (Choke Cherry), the second as *Prunus serotina* Ehrh. (Wild Black or Rum Cherry). (Felter.)

THE LARCH TREE ⁵³ [p. 63].—"This is the tree from which we gather that useful purging excrense, *Agarick*." ⁵⁴

"For Wounds and Cuts."

"The Leaves and Gum are both very good to heal Wounds and Cuts."

"For Wounds with Bruises."

"I cured once a desperate Bruise with a Cut upon the Knee Pan, with an Unguent made with the Leaves of the *Larch Tree* and Hogs Grease, but the Gum is the best."

SPRUCE 55 [p. 64].—"An Achariston for the Scurvy."

"The tops of Green Spruce Boughs boiled in Bear, and drunk, is assuredly one of the best Remedies for the Scurvy, restoring the Infected party in a short time; they also make a Lotion of some of the decoction, adding Honey and Allum."

HEMLOCK TREE ⁵⁶ [p. 64].—"To break Sore or Swelling."

The *Indians* break and heal their Swellings and Sores with it, boyling the inner bark of young Hemlock very well, then knocking of it betwixt two stones to a Playster and, annointing or soaking it in Soyls Oyl, they apply it to the Sore: It will break a Sore Swelling speedily."

SASSAFRAS,⁵⁷ OR AGUE TREE [p. 65].—"For heat in Fevers."

⁵³ Larix americana Michx. American or Black Larch, Tamarack or Hackmatack. See also Josselyn's "Voyages," p. 66. (Felter.)

54 Agaric. Polyporus. (Felter.)

55 Abies nigra Poir. (Black or Double Spruce), and probably also Abies alba Michx. (White or Single Spruce) (Tuckerman). These are now classed as Piceas. (Felter.)

⁵⁶ Tsuga canadensis (L.) Carr (Abies canadensis (L.) Michx.) Hemlock or Hemlock Spruce (Felter)

57 Sassafras variifolium (Salisb.) Ktze.; (Sassafras officinale Nees and Eberm., Sassafras Sassafras Karst). Sassafras ushers in the materia medica of North America (John Uri Lloyd), having been known to and used as a medicine by the Florida Indians before Ponce de Leon (1512) sought the spring of perpetual youth and named the country the Land of Flowers. The Spaniards are said to have learned of it in 1538, when De Soto invaded Florida. Monardes, of Seville, is said to have first described it and recorded its medicinal uses, in 1574. The widely copied illustration of sassafras in Monardes' work can be recognized by a stretch of the imagination, but does not compare with the faithful and beautiful illustration in Catesby's Natural History [1731-43] (see further details in Lloyd's "Origin and History of the Pharmacopeial Drugs," 1921). Jesuit Bark, also later known as Peruvian Bark, is the bark of Cinchona species and was introduced into England a few years before [1655-58] Josselyn published his "Rarities." As more or less secrecy attended its introduction (under the catchy name of Jesuit's Powder), it is but natural that Josselyn's curiosity should be aroused and induce him to ask whether sassafras may not be the famous Jesuit's Powder. Peruvian Bark, according to John Relph ("An Inquiry into the Medical Efficacy of a New Species of Peruvian Bark, etc.," 1794), was first brought to Spain in 1632. This is six years before the Countess of Chincon, wife of the Viceroy of Peru, was stricken with a tertian fever and cured by the bark of a tree-then called "a new remedy"-administered to her by her physician, Dr. Juan de Vega, and sent to the latter by the Corregidor of Loxa. The Countess, in pure charity, with a view to helpfulness, carried the bark home to Spain in 1640, where it was used and became celebrated as "The

"The Chips of the Root boyled in Beer is excellent to allay the hot rage of Feavers, being drunk."

"For Bruises and dry Blowes."

"The Leaves of the same Tree are very good made into an Oyntment, for Bruises and dry Blows. The Bark of the Root we use instead of Cinamon; and it is sold at the *Barbadoes* for two Shillings the Pound."

"And why may not this be the Bark the Jesuits Powder was made of, that was so Famous, not long since, in *England*, for Agues?"

CRAN BERRY, OR BEAR BERRY ⁵⁸ [p. 65].—"For the Scurvy."

"They are excellent against the Scurvy."

"For the heat in Fevers."

"They are also good to allay the hot fervour of hot Diseases."

PIROLA OR WINTER GREEN ⁵⁹ [p. 67]—"and another plant which I judge to be a kind of Pirola. *For Wounds.*"

"They are excellent Wound Herbs, but this I judge to be the better by far, Probatum est."

CLOWNES ALL HEAL⁶⁰ [pp. 69-70].—"For Wounds."

"Clownes all heal of New-England is another Wound Herb not Inferior to ours, but rather beyond it: Some of our *English* practitioners take it for *Vervene*, and use it for the same, wherein they are grossly mistaken."

⁵⁸ Vaccinium macrocarpon Aiton. Large or American Cranberry. Probably the sasemineash referred to by R. Williams ("Key into the Language of the Indians of New England," in Hist. Coll. III, p. 220) as "excellent to conserve against fevers." (Felter.)

⁵⁹ Pyrola (L.) species. Josselyn was mistaken in regard to the second plant mentioned as being "a kind of Pirola." The description and figures of the leaf drawn by him tally with those of the *Epipactis pubescens* (Willd.) A. A. Eaton; (Goodyera pubescens (Willd.) Robert Brown), which is unquestionably the plant meant. There is also a second figure of a plant, presumably meant to be another Pyrola, which only by a great stretch of the imagination could one associate the "sufficiently unhappy figure" (Plukenet) with the genus Pyrola. (Felter.)

⁶⁰ See Josselyn's "Voyages," p. 60, also. Tuckerman assumes from Josselyn's very exact description, omitted here, that *Verbena hastata* L., the Blue Vervain, "is perhaps notwithstanding the author's disclaimer, what he had in view." Referring to this plant, under the common name of "Clownes allheal," Josselyn says, in "Voyages," p. 60: "There is a plant, likewise,—called, for want of a name, clowne's wound-wort, by the English; though it be not the same,—that will heal a green wound in 24 hours, if a wise man have the ordering of it." Josselyn was well acquainted with Gerarde's Herball, in which the English plant of this common name is considered and which account is said by Britton and Holland (Dict. of English Plant Names) to refer to *Stachys palustris* L. (Felter.) 29

Countess' Powder," a name it long bore in pharmacy and commerce. Linnæus named the genus yielding the bark *Cinchona* (erring in spelling the name without the h) in honor of the Countess. Having come into use also in France, it did not appear in England until between 1655 and 1658, and then as a popularly advertised nostrum under the title, "The excellent powder known by the name of Jesuit's Powder." For further interesting historic data concerning Cinchona, see "Origin and History of All the Pharmacopeial Vegetable Drugs, etc." vol. i, by John Uri Lloyd, 1921. (Felter.)

THE GENESIS OF THE AMERICAN MATERIA MEDICA.

SKUNK CABBAGE⁶¹ [Title ours, pp. 70-71].—"This plant is one of the first that springs up after White *Hellibore*, in like wet and black grounds, commonly by *Hellibore*, with a sheath or Hood like Dragons,^{61a} but the pestle is of another shape, that is, having a round Purple Ball on the top of it, beset (as it were) with Burs; the hood shoots forth immediately from the Root, before any Leaf appears, having a Green sprig ^{61b} growing fast by it, like the

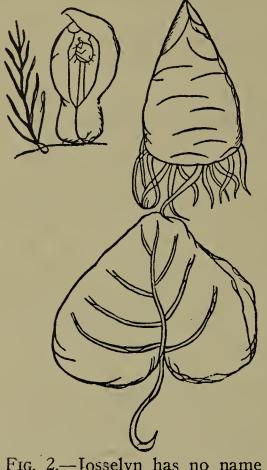




FIG. 2.—Josselyn has no name for this plant, but gives a good description. [Skunk Cabbage (Symplocarpus foetidus); cut reduced one-third. —FELTER.] FIG. 3.—Josselyn's "Branch of the Humming Bird Tree" [Touch-me-not or Jewel Weed (*Impatiens biflora*); cut reduced one-third.— FELTER.]

61a "Dragons." Species of Arisaema (Dragon Arum, etc.). If Josselyn had in mind

only the shape of the hood he might have meant Arisaema Dracontium (L.) Schott (Green Dragon, Dragon Root); if mottled coloration, the Arisaema triphyllum (L.) Schott (Indian Turnip or Jack-in-the-Pulpit). (Felter.)

^{61b} The "Green sprig growing fast by it, like the smaller Horse Tayl" may be an Equisetum (Horsetail), or, suggests Tuckerman, be added to the *Filices* referred to elsewhere by Josselyn. (Felter.)

⁶¹ Symplocarpus foetidus (L.) Nutt., (Spathyema foetidus Raf.). Skunk Cabbage. Under the section "Of such Plants as are proper to the Countrey, and have no Name," Josselyn gives probably the first account and description of this interesting plant, and figures it for the first time, so far as is known. Josselyn gives no name for the plant, and, singularly, does not mention the peculiarly colored mottling of the spathe or hood of the plant. It is also singular that a plant of such marked characteristics as to appearance and odor had no common name among the colonists known to Josselyn. Though Josselyn does not ascribe to the plant any medicinal virtues or uses, we have felt justified to include it in these reproductions on account of the prominent place it subsequently occupied in domestic, botanic and Eclectic medicine. (Felter.)

NEW-ENGLANDS RARITIES DISCOVERED

smaller *Horse Tayl*, about the latter end of *April* the Hood and Sprig wither away, and there comes forth in the room a Bud, like the Bud of the Walnut Tree, but bigger; the top of it is of a pale Green Colour, covered with brown skins like an Onion, white underneath the Leaves, which spread in time out of the Bud, grow from the root with stalk a Foot long, and are as big as the great *Bur Dock* Leaves, and of the colour; the Roots are many, and of the bigness of the steel of a Tobacco Pipe, and very white; the whole Plant sents as strong as a Fox; it continues till August."

HUMMING BIRD TREE ⁶² [p. 73].—"For Bruises and Aches upon stroaks."

"The *Indians* makes use of it for Aches, being bruised between two stones, and laid to cold, but made (after the *English* manner) into an unguent with Hogs Grease, there is not a more soveraign remedy for bruises of what kind soever; and for Aches upon Stroakes."

MAY WEED ⁶³ [p. 86], "excellent for the Mother; some of our *English* Housewives call it *Iron Wort*, and make a good Unguent for old Sores."

NAKED OATS ⁶⁴ [p. 88].—"For People weakened with long Sickness."

"It exceedingly nourisheth and strengthens people weakened with long Sickness. Sometimes they make Water Gruel with it, and sometimes thicken their Flesh Broth either with this or Hominy, if it be for Servants."

POMPIONS ⁶⁵ [p. 91].—Josselyn gives the recipe for "The Ancient New England standing Dish," of stewed pumpkin, spiced and made tart with vineger, concluding with the statement: "It provokes Urin extreamly and is very windy."

SIXTHLY AND LASTLY, OF STONES, MINERALS AND EARTHS.

[Pp. 93-94] "I shall conclude this section with a strange Cure affected upon a Drummers Wife, much afflicted with a Wolf ⁶⁶ in her Breast; the poor Woman lived with her Husband at a Town called by the *Indians, Casco,* but by the *English*, Famouth; where for some time she swaged the pain of her

65 Cucurbita Pepo L. Pumpkin. (Felter.)

⁶⁶ It is not certain just what Josselyn means here by the term Wolf, but *Lupus vul*garis is probably meant. At one time the term lupus included some types of cancer, and occasionally the latter were popularly called Wolf. But from the fact that Josselyn in other instances uses the word cancer where so meant it more than likely that here he refers to the lupus, now accepted as a cutaneous form of tuberculosis. (Felter.)

⁶² Josselyn's excellent figure of "A Branch of the Humming Bird Tree" is easily recognizable as the *Impatiens biflora* Walt. (*Impatiens fulva* Nutt) the Spotted Touchme-not, Jewel Weed, or Balsam. Josselyn evidently gave the name Humming Bird Tree on account of the great fondness of the humming bird for the plant. (Felter.)

⁶³ Anthemis Cotula L., (Maruta Cotula (L.) DeC. May-weed or Dog Fennel. (Felter.)

⁶⁴ Avena nuda L., said to be derived from Common Oats (Avena sativa L.), (Tuckerman). (Felter.)

Sore, by bathing it with strong Malt Beer, which it would suck in greedily, as if some living Creature: when she could come by no more Beer (for it was brought from Boston, along the Coasts, by Merchants,) she made use of *Rhum*, a strong Water drawn from Sugar Canes, with which it was lull'd a sleep; at last, (to be rid of it altogether) she put a quantity of Arsnick to the *Rhum*; and bathing of it as formerly, she utterly destroyed it, and Cured herself; but her kind Husband, who sucked out the Poyson as the Sore was healing, lost all his Teeth, but without further danger or inconvenience."

AN ADDITION OF SOME RARITIES OVERSLIPT.

SHEATH-FISH [pp. 96-97].—"An Achariston for Pin and Web."

"Which shell Calcin'd and Pulveriz'd, is excellent to take off a Pin and Web,67 or any kind of Filme growing over the Eye."

Morse, or Sea Horse ⁶⁸ [p. 97].—"For Poyson."

"It is very good against Poyson."

"For the Cramp."

"As also for the Cramp, made into Rings."

"For the Piles."

"And a secret for the Piles, if a wise man have the ordering of it."

THE MANATY [pp. 97-98].—"For the Stone-Collick."

"There is a Stone, taken out of the Head, that is rare for the Stone and Collect."

"To provoke Urine."

"Their Bones, beat to a Powder and drank with convenient Liquors, is a gallant Urin provoking Medicine."

WATER LILLY ROOTS 69 [p. 98] .- "For Wound and Bruise."

An Indian, whose Knee was bruised with a fall, and the Skin and Flesh strip'd down to the middle of the Calf of his Leg; Cured himself with Water Lilly Roots, boyled and stamped."

69 Either a species of Castalia (White Water Lily), or of the yellow forms of Nymphaea (Nuphar), or of Nelumbo Yellow Water Lilies were not so common along the Atlantic coast, yet Josselyn refers to "Water Lilly" in another place [p. 44] "with yellow Flowers." Hence, the conclusion is that the common American Pond Lily, or Cow Lily (Nymphaea advena Aiton, formerly Nuphar advena Aiton), is the plant intended by Josselyn. (Felter.)

^{67 &}quot;Pin and Web, two diseases of the eye, caligo and pterygium; sometimes wrongly explained as one disease" (Webster's Dictionary). Web. Pterygium (ibid.): "Caligo [c. darkness]: Dimness or obscurity of sight, dependent upon a speck on the cornea; also the speck itself" (ibid.). Pin means caligo. Web-eye is mentioned by Shakespeare. A Pterygium [Web] is "a triangular patch of mucous membrane growing on the conjunctiva, usually on the nasal side of the eye. The apex of the patch points toward the pupil, the fan-shaped base toward the canthus" (Gould's Practitioner's Dictionary). (Felter.)

⁶⁸ Josselyn probably refers to the ivory of the tusks. (Felter.)

NEW-ENGLANDS RARITIES DISCOVERED

[P. 98].—"For Swellings of the Foot."

"An Indian Webb, her foot being very much swell'd and inflamed, asswaged the swelling, and took away the inflamation, with our Garden or English Patience;^{69a} the Roots roasted. f. Cataplas. Anno 1670, June 28."

TOBACCO [p. 98].—"To dissolve a Scirrhous Tumour."

"An *Indian* dissolv'd a Scirrhous Tumour ⁷⁰ in the Arm and Hip, with a fomentation of Tobacco, applying afterwards the Herb, stamp'd betwixt two stones."

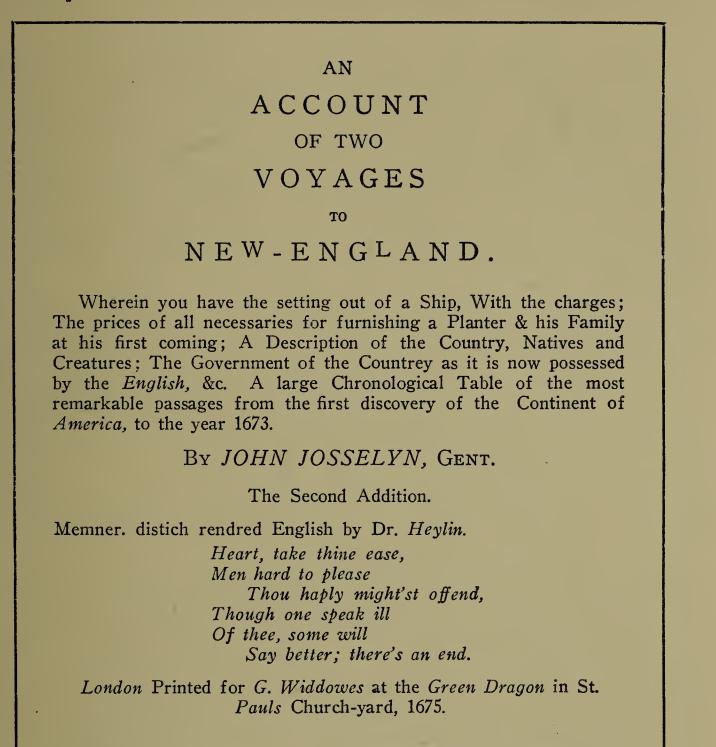
69a Probably Rumex Patientia L. Patience Dock, Garden or English Patience; sometimes known also as Monk's Rhubarb. A one-time popular garden pot-herb in New England, naturalized from Europe and escaped into the surrounding country. (Felter.)

⁷⁰ A hard tumor. Scirrhus usually means cancer; at one time it was accepted as a pre-cancerous hardness. From the means used and the relief obtained Josselyn evidently means only a hard mass. (Felter.)





[The following comprises the contents of the title-page to Josselyn's second book.—F.]



[Josselyn's utilitarianism, as well as his piety and trust in God, is well revealed in the following passages from his book.—F.]

"It is true that nothing in nature is superfluous, and we have the Scripture

to back it, that God created nothing in vain" [p. 62].

[On page 13 of the account of the first of the two voyeges to New England Josselyn gives the following instructions, among others, as to what the voyager should take with him on his passage from the Old to the New World. It will be noted that several of the items refer to medicinal substances.—F.]

[From p. 13]: "For private fresh provision, you may carry with you (in case you, or any of yours should be sick at Sea), Conserves of Roses, Clove-Gilliflowers,¹ Wormwood, Green-Ginger, Burnt-Wine, English Spirits, Prunes to stew, Raisons of the Sun, Currence,² Sugar, Nutmeg, Mace, Cinnamon, Pepper and Ginger, White Bisket, or Spanish rusk, Eggs, Rice, juice of Lemmons well put up to cure, or prevent the Scurvy.

It is interesting to note that the name "Gilloflower," as Parkinson has it, Gilliflower or Gilly-flower of later times, was applied, using some qualifying adjective, to many other plants than those of the Clove Family. Thus we find it attached (1) to various species of the Mustard Family (*Cruciferae*), especially to Common Stock (*Matthiola incana*); to the Wallflower (*Cheiranthus Cheiri*); and to the Dame's Violet, Dame's Rocket or Sweet Rocket (*Hesperis matronalis*), which has borne also variously the titles of Winter, Queen's and Rogue's Gilliflower. (2) It has been given to more than one member of the Pink Family (*Caryophyllaceae*), chiefly to the Clove-Pink or Carnation-Pink (*Dianthus Caryophyllus*), as well as to the Feathered Gilliflower (*Dianthus plumarius*); and to the Ragged Robin (*Lynchnis Flos-cuculi*), called also Cuckoo or Marsh Gilliflower. (3) Other plants of other families have been given the name, as the Water Gilliflower or Water Violet (*Hottonia 'palustris*); and Sea Gilliflower to Thrift (*Armeria vulgaris*).

The name has its origin in Medieval English from *gilofre* for clove gilofre, derived from the old French *girofre* or *girofle*. Standard Dictionary gives the Old French as *gilofre*, hence *clou de gilofre*, meaning clove or gilli-flower. Names for it now obsolete are Parkinson's Gilloflower, and Gilliver, Gillofer, Gilly-vor, and the Scotch Jer of flere.

During the reign of the Tudors, flower, kitchen and physic gardens and orchards became very popular, and especially was a great impetus given to gardening during the latter days of Elizabeth, when the flower garden came into its own. Indeed, as of late, gardening became the "fad" of the times. Color and perfume attracted the English most. Gosse puts it: "The Elizabethans liked their flowers to have a very full scent. There seems to be evidence that they valued this quality even more than brilliant color." Hence the popularity of pinks and carnations-the Gilliflowers or "July Flowers." Edmund Gosse touches delightfully upon this subject in "Elizabethan Flower Gardens" (Harper's Monthly Magazine, Vol. CXI, p. 143) when he recalls that William Lawson, the garden expert of olden times, "dubs the carnation 'the King of Flowers,' and Parkinson admits that of all blossoms it is the one which English people love the most. Much praise of 'the great old English Carnation, which for his beauty and stateliness is worthy of a prince's praise,' we read in the Paradisus in Sole, and the woodcut of 'him' ... displays a magnificent double clove, the sweetness of which must have pierced the senses almost like a pain. Parkinson describes more than fifty distinct varieties of this exquisite and odorous flower, the multiplication of which testifies to its extreme popularity among our Elizabethan forefathers. The vogue of the carnation lasted on into the next century. In his 1633 edition of Gerard's Herbal Thomas

¹ Gilliflower is derived from "July Flower." The Clove-Pink or Carnation-Pink (*Dianthus Caryophyllus*) is here intended by Josselyn. The term Gillyflower has rung many changes, both in spelling and application, as the years have passed. In the Elizabethan period, and for a time thereafter, the name was given chiefly to the Clove-Pink as listed above; at the present time, in England at least, it is more often applied to the Garden Stock (*Matthiola incana*). Today, in America, it is perhaps best known as the name of an Apple. The word is variously spelled Gilli-flower or Gilly-flower, and often without the hyphen. *Clove-Gilliflower* also referred to the mid-English meaning of the carnation, which, in Parkinson's day, had excited as much garden interest as has the tulip, the peony, and the dahlia in later years. The original Clove-Pink or Carnation-Pink was a single flower, and not the gorgeous double creations of the present-day growers.

"To prevent or take away Sea sickness, Conserve of *Wormwood* is very proper, but these following Troches I prefer before it. First make paste of *Sugar* and *Gum-Dragagant*³ mixed together, then mix therewith [p. 14] a reasonable quantitie of the powder of *Cinnamon* and *Ginger*, and if you please a little *Musk* also, and make it up into Roules of several fashions, which you may gild, of this when you are troubled in your stomach, take and eat a quantity according to discretion."

DISEASES IN NEW ENGLAND.

[In "Rarities" (p. 63, foot-notes 4, 5, 6) Josselyn referred briefly to the "killing" diseases in New England. In "Voyages" he again discourses upon the diseases prevailing among the English in the New-England country, and gives some remedies and the treatment therefor. It will be apparent, as in "Rarities," that throughout Josselyn's "Voyages" great stress has been laid upon external medication, and that many substances used therefor are mentioned. It was quite characteristic of early non-professional medication to favor the use of external medicaments to a far greater extent than to resort to the administration of internal medicines. Probably "safety first" had much to do in guiding this preference. Moreover, the "laying on," whether of hands or substances, has always had the larger appeal to the common people.

In considering this part of Josselyn's narrative, as in "Rarities," we have only the common names known to him to guide us in determining what some of these diseases were; and even though we have endeavored in the foot-notes to clarify some of the meanings, we must admit that but little certainty has ever been arrived at by anyone concerning the exact types of diseases that prevailed early in New England. One thing is certain, however, that most of them were ravaging and destructive, and may well have been called by any of the names that follow. Plague and pestilence were common appellations by various writers. The confusion of such conditions as typhus and typhoid and plague; Oriental or bubonic plague; plague and yellow fever; plague and black death and black pox; plague and pestilential fevers, and various other terms leave us quite in the dark as to the exact meanings of the names and the types of diseases they represent, as given by the earliest authors. Probably the first known epidemic of great import in New England was that invasion

English gardener, had imported from Poland the large cloves, "yellow sops-in-wine," that all flowerdom nearly lost their senses for joy. Josselyn links up the old with the new world when he advises the voyageurs to bring with them "Conserves of Roses, Clove-Gilliflower," etc. (Felter.)

² Currants. (Felter.)³ Gum Tragacanth. (Felter.)

Johnson says that the gillyflowers of his time were 'of such various colors, and also several shapes, that a great and large volume would not suffice to write of every one at large in particular.'" Little wonder is it, then, that when Nicholas Leate, the great

of smallpox which, in 1617, nearly wiped out of existence "the Pawkunnawkutts and Massachusetts" (Mumford, "A Narrative of Medicine in America"). This was three years before the Pilgrims landed at Plymouth. Even this diagnosis has been held in doubt by Packard and other good medical historians. That the then-called typhus fever (probably mostly typhoid) prevailed extensively, as well as occasional occurrences of yellow fever, and more commonly the dysentery; and the pestilential fevers akin to bubonic plague, and epidemic influenza and phthisis, seem fairly well established. But to be able to fathom exactly the diseases and diseased conditions mentioned by Josselyn and his contemporaries is a task all but impossible to accomplish.—F.]

[Pp. 183, 184, 185, 186]: "The Diseases that the *English* are afflicted with are the same that they have in *England*, with some proper to *New-England*, griping of the belly ⁴ (accompanied with Feaver and Ague) which turns to a bloody flux, a common disease in the Countrey, which together with the smallpox hath carried away abundance of their children, for this the common medicines amongst the poorer set are Pills of Cotton swallowed, or Sugar and Sallet-oyl boiled thick and made into Pills, Alloes pulverized and taken in the pap of an Apple. I helped many of them with a sweating medicine only.

"Also they are troubled with a disease in the mouth ⁵ or throat which hath proved mortal to some in a very short time. Quinsies,⁶ and Impostumations of the Almonds,⁷ with great distempers of cold.⁸ Some of our *New-England* writers affirm that the *English* are never or very rarely heard to sneeze or cough, as ordinarily they do in *England*, which is not true. For a cough or stitch upon cold, Wormwood, Sage, Marygolds, and Crabs-claws boiled in posset-drink and drunk off very warm, is a soveraign medicine.

"Pleurisies and Empyemas⁹ are frequent there, both cured after one and

influenza (la grippe) appeared first in the United States in Massachusetts and Connecticut in 1627. (Felter.)

⁹ Pleurisy among the colonists was a very frequent and serious disease, and evidently more often purulent, from the frequent references by various early authors to the "empiema" (empyema) which followed. Both maladies were frequently fatal. The earlier authors, *vide* Josselyn ("Rarities," p. 3), calls attention to that "said Disease called there the Plague of the back, but with us Empiema." (Felter.)

⁴ See footnote 5, under Josselyn's "Rarities." (Felter.)

⁵ It is not certain which Josselyn refers to, aphthous ulcerative stomatitis, cancrum oris (noma, a fatal gangrenous disease of the cheek) or cynanche maligna (diphtheria). (Felter.)

⁶ Suppurative tonsillitis or peritonsillar abscess. (Felter.)

⁷ Impostumations of the almonds—abscess of the tonsils. Impostume was an old name for an abscess. *Imposthume* is the correct rendering, meaning a collection of pus in any part of the body; an abscess. *Apostem* and *aposteme*, now obsolete, were once used in the same sense. Josselyn's terms, *impostume* and *impostumations*, are either mis-spellings or are corruptions of "imposthume" by leaving out the h. Hooper (Med. Dict., 1850) has it *Imposthuma*, "a term corrupted from *impostem* and *apostem*." (Felter.)

⁸ Probably catarrhal influenza, which was quite common in colonial days. Epidemic

the same way; but the last is a desperate disease and kills many. For the pleurisie I have given *Coriander*-seed prepared, *Carduus* seed, and *Harts-horn* pulverized with good success, the dose one dram in a cup of Wine.

"The Stone ¹⁰ terribly afflicts many and the Gout, and Sciatica,¹¹ for which take Onions roasted, peeled and stampt, then boil them with neats-feet oyl and Rhum to a plaister, and apply it to the hip.

"Head-aches are frequent, Palsies,¹² Dropsies, Worms, Noli-me-tangeres,¹³ Cancers, pestilent Feavers,¹⁴ Scurvies,¹⁵ the body corrupted with Sea-diet, Beef and Pork tainted, Butter and Cheese corrupted, fish rotten, a long voyage, coming into the searching sharpness of a purer climate, causeth death and sickness amongst them.

"Men and Women keep their complexions, but lose their Teeth: the Women are pittifully Tooth-shaken; whether through the coldness of the climate, or by sweet-meats of which they have store, I am not able to affirm,

12 Paralyses. (Felter.)

13 "Noli-me-tangeres"-Noli-me-tangere. Literally "Touch me not." A name that has been applied to various destructive ulcers. Thus in 1850 it was regarded, as recorded by Hooper (Med. Dict.), as "a species of herpes affecting the skin and cartilages of the nose, very difficult to cure, because it is exasperated by most applications. The disease generally commences with small, superficial spreading ulcerations of the alæ of the nose, which become more or less concealed beneath the furfuraceous scabs. The whole nose is frequently destroyed by the progressive ravages of this peculiar disorder, which sometimes cannot be stopped or retarded by any treatment, external or internal." Gould (Med. Dict.) calls it "Rodent Ulcer" (Gould gives rodent ulcer as a "form of ulcer, probably epitheliomatous, which gradually eats away soft tissues and bones"); Dorland (Med. Dict.), "Rodent ulcer, malignant ulcer." Webster's International Dictionary (1906) says: "A name formerly applied to several varieties of ulcerative cutaneous diseases, but now restricted to Lupus exedens, an ulcerative affection of the nose." Noli-me-tangere, or rodent ulcer (so called from eating away like a rat) is now generally conceded to be of a carcinomatous or epitheliomatous nature. The evolution of pathological history and names is well illustrated by the succession of views and names given in this note. (Felter.)

¹⁴ "Pestilential feavers" may refer to the plague of the Oriental type (bubonic plague) or to typhus fever (possibly typhoid), most likely to the latter. Plague was a general name broadly given certain great epidemics which spread over Europe. No great epidemic of this type reached America very early. The great pestilence or epidemic disease that decimated London in 1665 of nearly 70,000 persons, or nearly onethird of her population, was probably the Oriental or bubonic plague, which was sometimes called also the Oriental typhus. It was the Black Plague or Black Death of history. The reduction of Norway's population from 2,000,000 to 300,000 gives some idea of the ravages of the Black Death. The New England "pestilential feavers" were probably akin to the typhus type, but of lesser severity than those of the continent. See also footnote 5 under Josselyn's "Rarities." (Felter.) ¹⁵ Scurvy, the food-deficiency disease. (Felter.)

¹⁰ Urinary calculi. (Felter.)

¹¹ In "Rarities" Josselyn refers to sciatida as one of the diseases that kill. Just what he intends is not exactly clear, but from the location for the application here mentioned it is evident that he refers in this place to sciatica as we now understand it neuritis and perineuritis of the great sciatic nerve. (Felter.)

for the Toothach I have found the following medicine very available, Brimstone and Gunpowder compounded with butter, rub the mandible with it, the outside being first warm'd.

"The falling off of the hair occasioned by the coldness of the climate, and to make it curl, take of the strong water called Rhum and wash or bath your head therewith, it is an admirable remedie.

"For kibed ¹⁶ heels, to heal them taketh the yellowest part of Rozen, pulverize it and work it in the palm of your hand with the tallow of a Candle to a salve, and lay of it to the sore.

"For frozen limbs, a plaister framed with Soap, Bay-salt, and Molosses is sure, or Cow-dung¹⁷ boiled in milk and applied.

"For Warts and Corns, bathe them with Sea-water.

"There was in the Countrey not long since living two men that voided worms seven times their length.¹⁸ Likewise a young maid that was troubled with a sore pricking at her heart, still as she lean'd her body, or stept down with her foot to the one side or the other; this maid during her distemper voided worms of the length of a finger all hairy with black heads; it so fell out that the maid dyed; her friends desirous to discover the cause of the distemper of her heart, had her open'd and found two crooked bones growing upon the top of the heart, which as she bowed her body to the right or left side would jab their points into one and the same place, till they had worn a hole quite through. At *Cape-Porpus* lived an honest poor planter of middleage, and strong of body, but so extreamly troubled with two lumps (or wens as I conjectured) within him, on each side one, that he could not rest for them day nor night, being of great weight, and swagging to the one side or the other, according to the motion or posture of the body; at last he dyed Anno 1668 as I think, or therabouts. Some Chirurgeons there were that proffered to open him, but his wife would not assent to it, and so his disease was hidden in the Grave."

[So interesting also are Josselyn's allusions to the Indian tribes known to him that we feel justified in giving here some of his ethnological observations; his speculation as to the cause of the negro's color; and his accounts of sickness and treatments and death among the natives and the whites of New England. His comments upon the diet of the Indians are also instructive. As an index to some of the prevailing diseases, and to supplement what has already

"He galls his *kibe*" (Shakspeare). a. Chapped; cracked with cold; afflicted with chilblain; as "kibed heels" (Beaumont and Fletcher) (Webster's Dictionary). (Felter.)

¹⁷ A procedure in keeping with the disgusting practice of *isopathy*, once largely in vogue in continental medicine, and one not wholly abandoned among the sanitary-ignorant at this day. We have known more than one person to use this application (Felter.)

18 Evidently Taenia, or Tapeworms. (Felter.)

¹⁶ Kibe, n. A crack or chap in the flesh occasioned by cold; an ulcerated chilblain.

been given, we also reproduce some brief notes on fatalities en voyage when he came to America; and include some of his chronological data having a bearing upon diseases and mortality. Not alone does he give us the diseases that afflicted the people, but the pests which prey upon the skin of man and make his life miserable. Finally, we shall conclude with his tribute to the plants of the new world which he so greatly admired, and, in a foot-note, allude to a great number of medicinal plants he listed but for which he mentions no uses. First, let us have his graphic description of the Indians.—F.]

DESCRIPTION OF NEW ENGLAND INDIANS [TITLE OURS].

[Pp. 124-128]: "As for their persons they are tall and handsome timber'd people, out-wristed, pale and lean Tartarian visag'd, black eyed which is accounted the strongest for sight, and generally black hair'd, both smooth and curl'd wearing of it long. No beards, or very rarely, their Teeth are very white, short and even, they account them the most necessary and best parts of man; And as the Austreans are known by their great lips, the Bavarians by their pokes under their chins, the Jews by their goggle eyes, so the Indians by their flat noses, yet are not so much deprest as they are to the Southward.

"The Indesses that are young, are some of them very comely, having good features, their faces plump and round, and generally plump of their Bodies, as are the men likewise, and as soft and smooth as a mole-skin, of reasonable good complexions, but that they dye themselves tawnie, many prettie Brownetto's and spider finger'd Lasses may be seen amongst them. The Vetula's or old women are lean and uglie, all of them are of modest demeanor, considering their Savage breeding; and indeed do shame our *English* rusticks, whose rudeness in many things exceedeth theirs.

"Of disposition very inconstant, crafty, timorous, quick of apprehension, and very ingenious, soon angry, and so malicious that they seldom forget an injury, and barbarously cruel, witness their direful revenges upon one another. Prone to injurious violence and slaughter, by reason of their bloud dryed up with overmuch fire, very lecherous proceeding from choller adust and melancholy, a salt and sharp humour; very fingurative or theevish, and bold importunate beggars, both Men and Women guilty of Misoxenie or hatred to strangers, a quality appropriated to the old Brittains, all of them Cannibals, eaters of humane flesh. And so were formerly the Heathen-Irish, who used to feed upon the Buttocks of Boyes and Womens Paps; it seems it is natural to Savage people to do so." 18a

[Pp. 127-128]: "Wives they have two or three, according to the ability of their bodies and strength of their concupiscence, who have the easiest labours of any women in the world; they will go when their time is come alone, carry-

18a An instance where Josselyn seems to lose his usual balance and becomes credulous of the tales of wagging tongues. (Felter.)

43

ing a board with them two foot long, and a foot and a half broad, bor'd full of holes on each side, having a foot beneath like a Jack that we pull Boots off with, on the top of the board a broad strap of leather which they put over their forehead, the board hanging at their back; when they are come to a Bush or a Tree that they fancy they lay them down and are delivered in a trice, not so much as groaning for it, they wrap the child up in a young Beaver-skin with his heels close to his britch, leaving a little hole if it be a Boy for his Cock to peep out at; and lace him down to the board upon his back, his knees resting upon the foot beneath, then putting the strap of leather upon their forehead with the infant hanging at their back home they trudge; What other ceremonies they use more than dying of them with a liquor of boiled Hemlock-Bark, and then throwing of them into the water if they suspect the Child to be gotten by any other Nation, to see if he will swim, if he swim they acknowledge him for their own, their names they give them when they are men grown, and covet much to be called after our English manner, Robin, Harry, *Phillip* and the like, very indulgent they are to their Children, and their children sometimes to their Parents, but if they live so long that they become a burden to them, they will either starve them or bury them alive, as it was supposed an Indian did his father at Casco in 1669."

[Other references to the Indians, containing fragments of material germane to our subject, are contained in the following.—F.]

[Pp. 130, 131, 132, 133]: "They live long, even to an hundred years of age, if they be not cut off by their Children, war, and the plague, which together with the smallpox hath taken away abundance of them. *Pliny* reckons up but 300 Diseases in and about man, latter writers six thousand, 236 belonging to the eyes. There are not so many Diseases raigning amongst them as our *Europeans*. The great pox ¹⁹ is proper to them, by reason (as some do deem) that they are *Man-eaters*, which disease was brought amongst our *Europeans*, first by the Spaniards that went with *Christopher Columbus* who brought it to *Naples* with their *Indian*-women, with whom the *Italians* and *French* conversed Anno Dom. 1493. *Paracelsus* saith it happened in the year 1478 and 1480. But all agree that it was not known in *Europe* before *Columbus* his voyage to *America*. It hath continued amongst us above two hundred years.

"There are diseases that are proper to certain climates, as the Leprosie to $\mathcal{E}gypt$, swelling of the Throat or *Montegra* to *Asia*, the sweating sickness to the Inhabitants of the North; to the *Portugals* the Phthisick, to *Savoy* the mumps; So to the *West-Indies* the Pox,²⁰ but this doth not exclude other ¹⁹ Syphilis. (Felter.)

²⁰ Pox here evidently refers to syphilis (see Josselyn's reference to "great pox" and Columbus, etc., above). In early times to refer to pox unqualifiedly meant smallpox. In our time, however, it has come to mean syphilis exclusively. (Felter.)

Diseases. In New England the Indians are afflicted with pestilent Feavers, Plague, Black-pox,²¹ Consumption of the Lungs,²² Falling-sickness,²³ Kingsevil,²⁴ and a disease called by the Spaniard the Plague of the back, with us *Empyema*, their Physicians are the *Powaws* or Indian Priests, who cure sometimes by charms and medicine, but in a general infection they seldom come amongst them, therefore they use their own remedies, which is sweating, &c. Their manner is when they have plague or smallpox amongst them to cover their Wigwams with Bark so close that no Air can enter in, lining them, (as I said before) within, and making a great fire they remain there in a stewing heat until they are in a top sweat, and then run out into the Sea or River, and presently after they are come unto their Hutts again they either recover or give up the Ghost; they dye patiently both men and women, not knowing a Hell to scare them, nor a Conscience to terrifie them. In times of general Mortality they omit the Ceremonies of burying, exposing their dead Carkases to the Beasts of prey. But at other times they dig a Pit and set the diseased therein upon his breech upright, and throwing in the earth, cover it with sods and bind them down with sticks, driving in two stakes at each end; their mournings are somewhat like the howlings of the Irish, seldom at the graves but in the Wigwam where the party dyed, blaming the Devil for his hard heartedness, and concluding with rude prayers to him to afflict them no further.

"They acknowledge a God who they call Squantum, but worship him they do not, because (they say) he will do them no harm. But Abbamocho or Cheepie many times smites them with incurable Diseases, scares them with Apparitions and pannick Terrours, by reason whereof they live in a wretched consternation worshiping the Devil for fear. . . .

[P. 134]: "They worship the Devil (as I said), their Priests are called *Powaws* and are little better than Witches, for they have familiar conference with him, who makes them invulnerable, that is shot-free and stick-free. Craftie Rogues, abusing the rest at their pleasure, having power over them by reason of their Diabolical Art in curing of Diseases, which is performed with rude Ceremonies; they place the sick upon the ground sitting, and dance in an Antick manner round about him, beating their naked breasts with a strong hand, and making hideous faces, sometimes calling upon the Devil for his help, mingling their prayers with horrid and barbarous charms; if the sick

22 Phthisis pulmonalis, or pulmonary tuberculosis. (Feiter.) 23 Epilepsy. (Felter.)

²⁴ Scrofula, called King's Evil, because of the belief that it could be cured by the touch of the king. In olden times scrofula meant a peculiar malady marked by lymphatic gland enlargements and bone necrosis. This is probably what Josselyn refers to; many cases were undoubtedly tubercular. At the present day scrofula is regarded as a form of tuberculosis. (Felter.)

²¹ Black Pox here probably means malignant or hemorrhagic smallpox. (Felter.)

recover they send rich gifts, their Bowes and Arrowes, *Wompompers, Mohacks, Beaver skins*, or other rich Furs to the Eastward, where there is a vast Rock not far from the shore, having a hole in it of an unsearchable profundity, into which they throw them."

DIET OF THE INDIANS [TITLE OURS].

[Pp. 129-130]: "Their Diet is Fish and Fowl, Bear, Wild-cat, Rattoon [Raccoon—F.] and Deer; dry'd Oysters, Lobsters rosted or dryed in the smoak, Lampres and dry'd Moose-tongue, which they esteem a dish for a Sagamor; hard eggs boiled and made small and dryed to thicken their broth with, salt they have not the use of, nor bread, their Indian corn and Kidney beans they boil, and sometimes eat their Corn parcht or roasted in the ear against the fire; they feed likewise upon earth-nuts or ground-nuts, roots of water-Lillies, Ches-nuts, and divers sorts of Berries. They beat their Corn to powder and put it up in bags, which they make use of when stormie weather or the like will not suffer them to look out for their food. Pompions and water-Mellons too they have good store; they have prodigious stomachs, devouring a cruel deal, meer *voragoes*, never giving over eating as long as they have it, between meals spending their time in sleep till the next kettleful is boiled, when all is gone they satisfie themselves with a small quantity of the meal, making it serve as the frugal bit amongst the old Britains, which taken to the mountenance of a Bean would satisfie both thirst and hunger. If they have none of this, as sometimes it falleth out (being a very careless people not providing against the storms of want and tempest of necessity) they make use of Sir Francis Drake's remedy for hunger, go to sleep."

[PESTS.—Notwithstanding that Josselyn asserts it "true that there is nothing in nature superfluous" he makes no attempt to claim any virtues for or offers any defense of the insect pests he recounts below. His descriptions and entomological history of all sorts of bugs and insects make delightfully rich reading. Indeed, Josselyn seems at his best in his descriptions of the insects, giving one a good instance of his most entertaining style. They cannot, however, be included here, as records only of those substances affecting the health or comfort of man are abstracted for these reproductions. —F.]

TIKES [p. 117]: "Likewise there be infinite numbers of *Tikes* hanging upon the bushes in summer time that will cleave to a mans garments and creep into his Breeches eating themselves in a short time into the very flesh of a man. I have seen the stockins of those that have gone through the woods covered with them."

CHINCHES [p. 117]: "Besides these there is a Bug, but whether it be a Native to the Countrie or a stranger I cannot say: Some are of opinion that they are brought in by the Merchant with Spanish goods, they infest our

beds most, all day they hide themselves, but when the night comes they will creep to the sleeping wretch and bite him worse than a flea, which raiseth a swelling knub that will itch intolerably, if you scratch it waxeth bigger and growes to a scab; if you chance to break one of the *Bugs* it will stink odiously: they call them *Chinches* or *Wood-lice*, they are fat, red and in shape like a *Tike* and no bigger."

MUSKETAES [p. 121]: "The Countrey is strangely incommodated with flyes, which the *English* call Musketaes, they are like our gnats, they will sting so fiercely in summer as to make the faces of the *English* swell'd and scabby, as if the smallpox for the first year."

SMALL BLACK FLY [p. 122]: "Likewise there is a small black fly no bigger than a flea, so numerous up in the Countrey that a man cannot draw his breath, but he will suck them in: they continue about Thirty dayes say some, but I say three moneths, and are not only a pesterment but a plague to the Countrey."

GURNIPPER [p. 122]: "There is another sort of fly called a Gurnipper that are like our horse-flyes, and will bite desperately, making the bloud spurt out in great quantity; these trouble our *English* cattle very much, raising swellings as big as an egg in their hides."

[In the following notes, not literal except when between quotation marks, are given some disease and necrological history as noted of the first voyage to New England. The boy who ate the lemons, though flogged, probably warded off the more dreaded scurvy; and the number who had smallpox shows how early and how easily it was brought to New England. The chronological entries following the sea notes show also the prevalence of disease and death.—F.]

[P. 1.]—Embarked at Gravesend, Thursday, April 26, 1638, on board New Supply otherwise the Nicholas of London, a Ship of good force, 300 Tuns burden, manned with 48 sailors the master Robert Taylor, the merchant or undertaker Mr. Edward Tinge, with 164 passengers men, women and children.

[P. 3].—Ascension day (May 3), "about one of the clock at night the wind took us a stayes with a gust, rain, thunder and lightning, and now a Servant of one of the passengers sickned of the small pox."

Twelfth day [p. 6], Whitsunday, "the partie that was sick of the small pox now dyed, whom we buried in the Sea, tying a bullet (as the manner is) to his neck, and another to his leggs, turned him out at a Port-hole, giving fire to a great Gun. In the afternoon one *Martin Ivy* a stripling, servant to Captain *Thomas Cammock* was whipt naked at the Capstern, with a Cat with Nine tails, for filching 9 great Lemmons out of the *Chirurgeons* Cabbin, which he eat rinds and all in less than an hours time."

The 14th day of May [p. 7]. "Now was Silly 50 leagues off, and now many of the passengers fall sick of the small Pox and Calenture." ²⁵

June 19th [p. 10]. "Captain *Thomas Cammock* . . now had another lad *Thomas Jones*, that dyed of the small pox at eight of the clock at night."

[P. 10]. Two and twentieth June, "another passenger dyed of a Consumption."

[P. 11]. Eight and twentieth day, "One of Mr. Edward Ting's the undertakers men now dyed of the Phthisick." When sailing toward Newfound-land, when two leagues off Cape Ann were told "of a general Earth-quake in New-England, of the Birth of a Monster at Boston, in the Massachusets-Bay a mortality."

July 3. "Mr. Tinges other man now dyed of the small pox."

JOSSELYN'S CHRONOLOGICAL OBSERVATIONS.-[F.]

Title Page: Chronological Observation of America, From the year of the World to the year of Christ, 1673. London: Printed for *Giles Widdowes*, at the *Green-Dragon* in St. *Pauls*-Church-yard, 1674.

1620, Nov. 11. "New Plimouth: in January and February following was a mortality among the English, which swept away half of the Company."

"Mrs. Susanna White delivered of a Son at new-Plimouth, Christened Peregrine; he was the first of the English that was born in new-England, and was afterwards the Lieutenant of the Military Company of Marshfield in Plimouth Colony."

1628. "The Indians at the Massachusetts, were at that time by sickness decreased from 30,000 to 300."

1629. "Three ships arrived at Salem bringing a great number of passengers from England; infectious diseases amongst them."

1633. "An infectious feaver amongst the Inhabitants of New-Plimouth, whereof many died."

"Great swarms of strange flyes up and down the Countrey, which was a presage of the following mortality."

1634. "In the Spring a great sickness among the *Indians*, by the small pox."

1637. A hideous monster born at Boston of one Mrs. Mary Dyer."

1650. "A great mortality amongst children this year in New-England."

1652. "John Cotton Teacher of Boston Church dyed, a Comet was seen at the time of his sickness hanging over New-England, which went out soon

after his death."

²⁵ Calenture comes from the Spanish calentura (heat) and the Latin calere (to be hot), and has reference to at least two diseases. Thus, says Gould (Practitioners' Med. Dict.): "1. A tropical remittent fever with delirium; formerly, a supposed fever of this name that attacked marines, leading them to leap into the sea. 2. Sunstroke." Josselyn's calenture is, without doubt, the first named. (Felter.)

1666. "The small pox at Boston in the Massachusetts Colony."

1671. "Elder *Pen* now died at *Boston*, the *English* troubled much with griping of the guts, and bloudy Flux, of which several dyed."

[P. 214]: "Sept. 1, 1671 being Saturday in the morning before day we set sail [final passage to England—F.] and came to *Boston* about three of the clock in the afternoon, where I found the Inhabitants exceedingly afflicted with griping of the guts, and Feaver, and Ague, and Bloudy Flux."

[Nor does Josselyn overlook diseases of the fowls and their treatment. Note particularly his recognition of contagion.—F.]

[P. 195]: "The Pipe or Roupe is a common disease amongst their poultry infecting one another with it. I conceive it cometh of a cold moisture of the brain, they will be very sleepie with it, the best cure for it is *Garlick*, and smoaking of them with dryed *Hysope*."

[Josselyn now proceeds to discuss the color of the negro.—F.]

[P. 187]: "It is the opinion of many men, that the blackness of the Negroes proceeded from the curse upon Cham's posterity, others again will have it to be the property of the climate where they live. I pass by other Philosophical reasons and skill, only render you my experimental knowledge: having a Barbarie-moor under cure, whose finger (prict with the bone of a fish) was Impostumated, after I had lanc'd it and let out the Corruption the skin began to rise with proud flesh under it; this I wore away, and having made a sound bottom I incarnated it, and then laid on my skinning plaister, then I perceived that the Moor had one skin more than Englishmen; the skin that is basted to the flesh is bloudy and of the same Azure colour with the veins, but deeper than the colour of our Europeans veins. Over this is another skin of a tawny colour, and upon that Epidermis or Cuticula, the flower of the skin (which is that Snakes cast) and this is tawny also, the colour of the blew skin mingling with the tawny makes them appear black. I do not peremptorily affirm this to be the cause, but submit to better judgment. More rarities of this nature I could make known unto you, but I hasten to an end." 26

[Josselyn's admiration (see second volume of "Voyages") for New England's resources was unbounded. This is evident from the following passage concerning her botany. His comparison of plants for beauty with those of the old world does him credit. His references to some plants which greatly attracted him and were more than others quite fully described and figured

in "Rarities" may be noted here as: American Mary-Gold (Sunflower or

26 "Dr. John Mitchell, a very early botanist of Virginia, has a paper upon the same topic—the cause of the negro's color—in the Philosophical Transactions, but this appears less in accordance with more recent researches (Pritchard, "Nat. Hist. of Man," p. 81) than Josselyn's observations" (Edward Tuckerman in "Archæologia Americana," Vol. iv, p. 114). (Felter.)

Helianthus); Earth-nut (ground nut, Apios tuberosa): beautiful leaved Pirola (Epipactis pubescens); the honied Colibry (Collibuy-humming bird, Impatiens fulva). His reference to the use of Veratrum viride as a test for leadership is a very early one, often referred to also by later writers.—F.]

[Pp. 59-60]: "The plants in New-England for the variety, number, beauty, and vertues, may stand in Competition with the plants of any Countrey in Europe. Johnson²⁷ hath added to Gerard's ²⁸ Herbal 300, and Parkinson²⁹ mentioneth many more; had they been in New-England they might have found 1000 at least never heard of nor seen by any Englishman before: 'Tis true, the Countrie hath no Bonerets, or Tartarlambs, no glittering coloured Tuleps; but here you have the American Mary-Gold, the Earth-nut bearing a princely Flower, the beautiful leaved Pirola, the honied Colibry, &c. They are generally of (somewhat) a more masculine vertue, than any of the same species in England, but not in so terrible a degree, as to be mischievious or ineffectual to our English bodies. It is affirmed by some that

²⁹ John Parkinson, English botanist and herbalist, was born in England in 1567 and died in London about 1641. He was apothecary to James I, and in the following reign of Charles I. obtained the title of *botanicus regius primarius* (Pultney's "Sketches"). Parkinson had a large garden in London and wrote primarily two works, "Paradisus terrestris, or a Choice Garden of All Sorts of Flowers," etc., and his great "Theatrum Botanicum, the Theater of Plantes," a herbal of large extent which appeared in 1601, four years after Gerarde's first edition and thirty-five years before Johnson's edition. "These works of Gerarde, Parkinson and Johnson were huge quartos, filled with the most fantastic statements about plants and their virtues, and illustrated by crude wood-cuts, which were, however, for the most part, recognizable. Parkinson's work of 1755 large pages justified, so far as American plants are concerned, his claim that "it contains more accounts than hath been hitherto published by any before." (Felter's "Backgrounds, Foundations and Founders of the American Materia Medica," *Eclectic Medical Quarterly*, Vol. 13, No. 1, p. 35.) Parkinson was one of the best of the old herbalists, and was known by the fantastic name of Paradi'sus in So'le (Park-in-sun). (Felter.)

²⁷ Thomas Johnson, English botanical writer, born at Selby, in Yorkshire, England; apothecary, doctor of physic (Oxford) and soldier of the crown. Edited Gerarde's "Herball" in 1636. He so greatly improved upon the first edition of the latter as to gain great credit for himself and wider publicity for some new American plants. Col. Johnson was killed in a skirmish at Basing, in 1644, while fighting for the king in the English civil war. (Felter.)

²⁸ John Gerarde, famous English herbalist, born at Nantwich, in Cheshire, England, in 1545; died in 1607. Gerarde practiced surgery in London, and became a gardener. In 1597 he published Gerarde's "Herball," a work which led all other herbals in popularity, and was chiefly a translation of Dodoen's and embellished with rude woodcuts of previous continental use. Gerarde's "The Herball or General Historie of Plants," is a ponderous tome and was by far the most widely quoted of the herbals in subsequent American research. Gerarde, the author, was gardener to Lord Burleigh, and had a large physic garden at Holborn, in England. His portrait embellishes the titlepage to his work. The "Herball" was revised and enlarged by Thomas Johnson (see note) in 1636. Josselyn was well acquainted with this work, and probably used it as the basis for naming and comparing the American plants. In fact, all the earliest writers in New England were familiar with the herbals of Gerarde, Parkinson, and Johnson's Gerarde, and acquired many of their curious and fantastical notions from them. (Felter.)

no foraign Drugg or Simple can be so proper to Englishmen as their own, for the quantity of Opium which Turks do safely take will kill four Englishmen, and that which will salve their wounds within a day, will not recure an Englishman in three. To which I answer that it is custom that brings the Turks to the familiar use of Opium. You may have heard of a Taylor in Kent, who being afflicted with want of sleep ventured upon Opium, taking at first a grain, and increasing of it till it came to an ounce, which quantitie he took as familiarly as a Turk, without any harm, more than that he could not sleep without it. The English in New-England take white Hellebore,³⁰ which operates as fairly with them, as with the Indians, who steeping of it in water sometime, give it to young lads gathered together a purpose to drink, if it come up they force them to drink again their vomit, (which they save in a Birchen-dish) till it stayes with them & he that gets the victory of it is made Captain of the other lads for that year.^{30a} There is a plant likewise, called for

^{30a} Besides the plants which have medicinal properties ascribed to them by Josselyn, he lists a large number of others, showing the wide range of his observations, which from times past have been regarded as medicinal plants, and a number of which subsequently became noted as furnishing reliable medicines. A large number of these were wild and some were garden plants; some were held by Josselyn common to both England and New England, others native to this country only. The following are some, but not all, that are listed, the common names only being those of Josselyn:

CAT'S TAIL (Typha latifolia L.);

YELLOW BASTARD DAFFODIL (*Erythronium americanum* Ker. [Yellow Adder's Tongue -Gray]);

WATER-CRESSES (Radicula Nasturium-aquaticum (L.) Britten and Rendle);

WILD SORREL (a, wild; b, White S., and c, garden) (a, Rumex Acetosella L.; b, Oxalis Acetosella L.; c, Rumex Patientia L. [or Rumex sanguineous L.; Bloodwort, according to Tuckerman]);

UPRIGHT PENIROYAL [American Pennyroyal F.] (Hedeoma pulegioides (L.) Pers.);

LYSIMACHIA or LOOSE STRIFE (*Epilobium angustifolium* L. according to Tuckerman);

SPEAR MINT (Mentha spicata L.):

EGRIMONY (Agrimonia Eupatoria L.) (?);

COMPHERIE (Symphytum officinalis L.);

.

ENULA CAMPANA [Elecampane F.] (Inula Helenium L.);

GREAT CLOT BURR (Arctium Lappa L. [Arctium major Gaert.]) according to Tuckerman;

TANSIE (Tanacetum vulgare L.);

LESSER CLOT-BUR (Xanthium strumarium L.) (?);

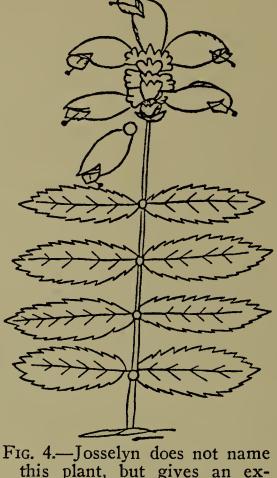
DRAGONS [Arisaema F., either Arisaema triphyllum (L.) Schott or A. Dracontium (L.) Schott, probably the latter. See foot-note 61a, under Josselyn's "Rarities," p. 30.

-.F.] VIOLETS, "white, blew, and reddish" (Viola species); WILD ANGELICA, "majoris and minoris" (Angelica species); YARROW (Achillea Millefolium L.); FEARN [Male Fern, F.] (Aspidium Filix-mas (L.) Sw.); DEW-GRAS [Rosa solis, Sundew] (Drosera species, probably D. rotundifolia); NOBLE LIVER WORT (Hepatica triloba Chaix.); JUNIPER (Juniperus communis L., or possibly J. virginiana L. or Red Cedar);

³⁰ Veratrum viride Ait. Indian Poke; Green Veratrum. (Felter.)

want of a name Clownes wound wort ³¹ by the English, though it be not the same, that will heal a green wound in 24 hours, if a wise man have the ordering of it."

[Here begin references proper to substances, animal and vegetable, used



this plant, but gives an excellent description of it. [Snakehead or Balmony (*Chelone glabra*); cut reduced one-third.—FELTER.]

as medicines in New England during Josselyn's visits. These accounts are somewhat fuller than those in "Rarities" and show a somewhat riper style.

SHEPHERD'S PURSE (Capsella Bursa-pastoris (L.) Medic);

NETTLESTINGING [Stinging Nettle, F.] (Urtica dioica L.), "which was the first plant taken notice of" (Josselyn).

BLACK HENBANE [adventive, F.] (Hyoscyamus niger L.); WORMWOOD (Artemisia Absinthium L.); CELANDINE (Chelidonium majus L.);

CAT-MINT [Catnip, F.] (Nepeta Cataria L.); ST. JOHN'S WORT (Hypericum perforatum L.); PLANTAIN [Common Plantain, F.] (Plantago major L.); and GOOSE-GRASS OF CLIVERS (Galium Aparine L.). (Felter.) ³¹ Verbena hastata L. (Blue Vervain). See Note 60 under Josselyn's "Rarities," (Felter.)

[[]SKUNK CABBAGE, our name, F.] (Symplocarpus foetidus (L.) Nutt), not named by Josselyn, but figured and described by him (see reproduced figure). See Josselyn's "Rarities," Fig. 2.

[[]BALMONY OF SNAKE-HEAD, F.] (Chelone glabra L.). [Josselyn figures but gives this no name; see reproduced figure, F.]

Josselyn did not overlook the virtues of mineralized waters, as is evident by his reference to the spring at Black Point [Scarborough], Maine.—F.]

SEA TURTLES [p. 39]: Green-turtle, which is best for food, it is affirmed that the feeding upon this Turtle for a twelve month, forbearing all other kind of food will cure absolutely Consumptions,^{31a} and the great Pox; ^{31b} They are very delicate food, and their Eggs are very wholesome and restorative."

[Pp. 44-45]: "The whole Countrie produceth springs in abundance replenished with excellent waters, having all the properties ascribed to the best in the world.

> Swift is't in pace, light poiz'd, to look in clear, And quick in boiling (which esteemed were) Such qualities, as rightly understood Withouten these no water could be good.

"One Spring there is at Black Point in the Province of Main, coming out of muddy clay that will colour a spade, as if hatcht with silver, it is purgative and cures scabs and Itch,³² &c."

CLOWNES WOUND WORT ³³ [p. 60]: "There is a plant likewise, called for want of a name *Clownes wound wort* by the *English*, though it be not the same, that will heal a green wound in 24 hours, if a wise man have the ordering of it."

FROG [p. 63]: "There is also many times found upon the leaves of the *Oake* a Creature like a *Frog*, being thin as a leaf, and transparent, as yellow as Gold, the *English* call them Tree-frogs or Tree-toads they are said to be venemous, but may be safely used, being admirable to stop women's over-flowing courses hung about their necks in a Taffetie bag."

PINE TREE ³⁴ [pp. 64-65]: "The bark thereof is good for Ulcers in tender persons that refuse sharp medicines. The inner bark of young board-pine cut small and stampt and boiled in a Gallon of water is a very soveraign medicine

English practitioners are grossly mistaken in thinking this plant "Vervene" and "use it for the same," Tuckerman is of the opinion that this was, perhaps, our Blue Vervain (Verbena hastata L.). (Felter.)

34 Pinus Strobus L. White Pine. Though Josselyn's notation concerning the use of the White Pine is a very early one it is not the earliest record we have of the use of parts of this tree as a medicine in North America. It is recorded of Jacques Cartier, the celebrated French explorer of the country subsequently called Canada, that in his

³¹a Phthisis. As Josselyn mentions this disease frequently under the term *Ptisick*, he possibly may have meant by consumption, when unqualified, any wasting disease. (Felter.)

³¹b Syphilis is probably meant in contradistinction to smallpox, the latter being almost invariably, in Josselyn's day, referred to under the latter name. The unqualified name Pox was, however, frequently used for smallpox in early days, but now is quite generally accepted as applying to syphilis. (Felter.)

³² Scabies (?). (Felter.)

³³ Notwithstanding a statement by Josselyn in "New-England's Rarities" [p. 70] that

for burn or scald, washing the sore with some of the decoction, and then laying on the bark stampt very soft: or for frozen limbs, to take out the fire and to heal them, take the bark of Board-pine Tree, cut it small and stampt it and boil it in a gallon of water to Gelly, wash the sore with the liquor, stamp the bark again till it be very soft and bind it on. The Turpentine is excellent to heal wounds and cuts, and hath all the properties of *Venice* Turpentine, the Rosen is as good as Frankincense, and the powder of dryed leaves generateth flesh; the distilled water of the green Cones taketh away wrinkles in the face being laid on with Cloths."

THE FIRR-TREE ³⁵ [pp. 65-66]: ". . . . bark is smooth, with knobs or blisters, in which lyeth clear liquid Turpentine very good to be put into salves

"His greater misfortune soon made this forgotten; and the more readily, as it would have been necessary to abandon this vessel for want of sailors to take it back to France. This was a kind of scurvy, which none escaped, and which would perhaps have swept off the very last of the French, had they not, a little too late, discovered a remedy which acted at once. This was a decoction of the leaf and bark of the white pine pounded together. Cartier himself was attacked with the disease, when the Indians taught him this secret. He had already lost twenty-five men, and scarcely two or three were left able to act. A week, however, after beginning to use this remedy all were up. Some even, it is said, who had had the venereal disease, and had not been perfectly cured, in a short time recovered perfect health. This same tree produces the turpentine, or white Canada balsam" (Vol. I., p. 121). Though the Canada balsam is a product of other terebinthinaceous trees, it is generally conceded that the tree referred to in Charlevoix's history is the *Pinus Strobus* or White Pine. The Indian name of the tree was Ameda or Annedda. This statement is based, according to Shea, upon the French Onondaga Dictionary. Cartier gives no French name for it.

The disease referred to first attacked the Indians, according to the early narratives, and fifty died before a Frenchman was attacked. The whole affair, however, is shrouded in more or less of mystery, for, as related by the distinguished translator, the Canada Indians had never been subject to scurvy. The narrative, founded upon traveller's journals, is nevertheless valuable in that it makes this very early reference to the use, in America, of the White Pine in the treatment of disease. The Jesuit Father Charlevoix (born October 29, 1689; died February 1 1761), whose celebrated history fills six good sized volumes as translated into English, together with the translator's notes, has given us one of the first accounts of American exploration, greatly entertaining and informative, even if not always critically exact. A fine steel portrait of this learned priest-historian may be seen in Shea's translation as the frontispiece to Volume I. In the same volume, on page 111, is also a fine steel of Cartier, one of the alleged patients, though some doubt is cast upon the latter's having been attacked by the disease ("Brief Recit," p. 36). That many of the crew were prostrated with it and then cured with the decoction of Pine is what concerns us most. (Felter.) ³⁵ Abies balsamea (L.) Mill. Balsam Fir. (Felter.)



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second voyage to the new world [not definitely settled whether second or third voyage] he had one of his vessels wrecked on a rock in the St. Lawrence river, opposite the River St. Croix. This rock is entirely covered at high water and is now styled Roche de Jacques Cartier. Referring to this and what followed, and especially the reference to the White Pine, we cull from an account of an occurrence in the year 1536, recorded in the "History and General Description of France New," by the Rev. P. F. X. de Charlevoix, S. J., translated into English in 1866 by John Gilmary Shea, the distinguished and scholarly Catholic prelate and historian:

and oyntments, the leaves or Cones boiled in Beer are good for the Scurvie,³⁶ the young buds are excellent to put into Epithemes³⁷ for Warts and Corns, the Rosen is altogether as good as Frankincense; out of this Tree the Pole-akers draw Pitch and Tarr. . . . The powder of dried Pitch is used to generate flesh in wounds and sores. . . . The knots of the Tree and fat-pine are used by the *English* instead of Candles, and it will burn a long time, but it makes the people pale."

THE HEMLOCK-TREE ³⁸ [p. 67] "is a kind of spruce or pine; the bark boiled and stampt till it be very soft is excellent for to heal wounds, and so is the Turpentine thereof, and the Turpentine that issueth from the Cones of the Larch-tree,³⁹ (which comes nearest of any to the right Turpentine) is singularly good to heal wounds, and to draw out the malice (or Thorn, as Helmont ⁴⁰ phrases it) of any Ach, rubbing the place therewith, and strowing upon it the powder Sage-leaves." ⁴¹

THE SASSAFRAS-TREE⁴² [p. 68]: "A decoction of the Roots and bark

38 Tsuga canadensis (C.) Carr; (Abies canadensis (L.) Michaux.) The Hemlock-Spruce. (Felter.)

39 Larix americana (Du Roi) Koch (Larix americana Michaux.). (Felter.)

40 Jean Baptiste [John Baptist] van Helmont, a nobleman of Brabant, born at Brussels in 1577; died 1644. He studied at Louvain, where he ran through various sciences, according to his own account, and at last pitched upon medicine and chemistry, in which last he made some important discoveries, particularly of the gases. He was a great admirer of Paracelsus, and a great enthusiast. . . His works were collected and published together in 1652, at Amsterdam (The Universal Biog. Dict., by John Watkins, LL.D., London, 1823). Van Helmont was a Belgian mystic and physician and former Capuchin friar, the founder of the Iatrochemical School, who, like Paracelsus, whom he greatly admired, "believed that each material process of the body is presided over by a special archæus, or spirit (which he calls Blas), and that these physiologic processes are in themselves purely chemical, being due in each case to the agency of a special ferment (or Gas). Each Gas is an instrument in the hands of its Blas, while the latter are presided over by a 'sensory-motive soul' (anima sensitiva motivaque), which van Helmont locates in the pit of the stomach, since a blow in that region destroys consciousness. He was the first to recognize the physiological importance of ferments and gases, particularly of carbonic acid, which de described as gas sylvestre, and his knowledge of the bile, the gastric juice, and the acids of the stomach was considerable" (Garrison, "History of Medicine"). Van Helmont failed to distinguish between carbon dioxide and carbon monoxide. A portrait of this interesting character may be found in Garrison's work. Josselyn's reference to the "thorn" of

van Helmont shows his wide acquaintance with such great characters in the upbuilding of medicine. (Felter.)

41 Salvia officinalis L. (Felter.)

42 Sassafras variifolium (Salisb.) Ktze. (Sassafras Sassafras Karst., Sassafras officinale Nees). To show Josselyn's accurate observation, note his remarks on the Sassafras tree: "The Sassafras-tree is no great Tree, I have met with some as big as my middle, the rind is tawny and upon that a thin colour of Ashes, the inner part is

³⁶ Scorbutus or Scurvy. (Felter.)

³⁷ Epithemes—"Epithem (Epithemata pl.), a poultice. Any local application; as a compress, fomentation, lotion or poultice; from this definition some writers exclude salves, plasters and ointments" (Gould's Practitioners' Dictionary). (Felter.)

thereof sweetned with Sugar, and drunk in the morning fasting will open the body and procure a stool or two, it is good for the Scurvie taken some time together, and laying upon the legs of the green leaves of the white Helle*bore.*⁴³ They give it to Cows that have newly calved to make them cast their Cleanings." 44

THE MAPLE-TREE⁴⁵ [p. 69]: "On the boughs of this tree I have often found a jellied substance like Jewes-Ears,⁴⁶ which I found upon tryal to be as good for sore throats, &c."

ALDER ⁴⁷ [p. 70]: "Of which wood there is abundance in the wet swamps: the bark thereof with the yolke of an Egg is good for a strain; an Indian bruising of his knee, chew'd the bark of Alder fasting and laid it to, which quickly helped him. The wives of our West-Countrey English made a drink with the seeds of Alder, giving it to their Children troubled with the Alloes.⁴⁸ I have talk'd with many of them, but could never apprehend what disease it should be they so name, these Trees are called by some Sullinges."

[P. 70-71]: "The *Indians* tell of a Tree that growes far up in the land, that is as big as an Oak, that will cure the falling-sickness infallibly, what part thereof they use, Bark, Wood, leaves or fruit I could never learn; they promised often to bring it to me, but did not. I have seen a stately Tree growing here and there in valleys, not like to any Trees in Europe, having a smooth bark of a dark brown colour, the leaves like great Maple, in England called Sycamor, but larger, it may be this is the Tree ⁴⁹ they brag of."

SUMACH SHRUB⁵⁰ [p. 71], "which as I have told you in New-Englands rarities, differeth from all the kinds set down in our English Herbals; the decoction of the leaves in wine drunk, is good for all Fluxes of the belly in man or woman, the whites, &c. For galled places stamp the leaves with

49 Conjectured to have been the Platanus occidentalis L. The Sycamore, American Sycamore or Buttonwood. (Felter.)

⁵⁰ In "New England's Prospect" (1634), Wood speaks of it as "the dear Sumach;" this may refer to our Staghorn Sumach (Rhus typhina L.). As the properties of Rhus coriaria, or Tanner's Sumach of Europe, as given in Gerarde's Herball, are quite similar, Josselyn, Tuckerman suggests, may have had these virtues in mind, though he declares the plant to differ from those recorded in "our English Herbals." (Felter.)

white, of an excellent smell like Fennel, of a sweet tast with some bitterness; the leaves are like Fig-leaves of a dark green" [p. 68]. (Felter.)

⁴³ Veratrum viride Ait. (American Hellebore or Indian Poke) is meant rather than Veratrum album or White Hellebore. (Felter.)

⁴⁴ Placenta and bloody mucous discharge. (Felter.)

⁴⁵ Acer. Species not certain. (Felter.)

⁴⁶ Fungi species. It is probably that form listed in Webster's Dictionary as "Jew'sears, a species of fungus (Hirneola Auricula-Judae, or Auricula) having some resemblance to the human ear." (Felter.)

⁴⁷ Alnus species. (Felter.)

⁴⁸ Like Josselyn, we have been unable to find out what disorder is meant by this word. (Felter)

honey, and apply it, nothing so soon healeth a wound in the head as Sumach stamped and applied once in three dayes, the powder strewed in stayeth the bleeding of wounds: the seed of Sumach powdered and mixt with honey, healeth the Hemorrhoids, the gum put into a hollow tooth asswageth the pain."

SWEET FERN ⁵¹ [p. 72], "see the rarities of New England, the tops and nucaments of sweet fern boiled in water or milk and drunk helpeth all manner of Fluxes." 52

MAZE⁵³ [p. 73], "otherwise called *Turkie*-wheat, or rather *Indian* wheat, because it came first from thence; the leaves boiled and drunk helpeth pain in the back; of the stalks when they are green you may make *Beverage*, as they do with Calamels, or Sugar-canes. The raw Corn chewed ripens felons or Cats hairs, or you may lay Samp 54 to it."

"FRENCH BEANS ⁵⁵ [p. 73], or rather American beans, the Herbalists call them kidney-beans from their shape and effects, for they strengthen the kidneys."

"MEXICO POMPION ⁵⁶ [p. 74], which is flat and deeply camphered, the flesh laid to, asswageth pain in the eyes."

THE WATER-MELLON 57 [p. 75] is "a rare cooler of Feavers, and excellent against the stone."

[Pp. 74-75]: "Tobacco, or Tabacca so called from Tabaco or Tabago, one of the Caribbe-Islands about 50 English miles from Trinidad. The right name, according to Monardus, is picielte, as others will petum, nicotian from Nicot, a Portingal, to whom it was presented as a rarity in Anno Dom. 1559, by one that brought it from Florida. Great contest there is about the time when it was first brought into England, some will have Sir John Hawkins the first, others Sir Francis Drake's Mariners; others again say that one Mr. Lane imployed by Sir Walter Raleigh brought it first into England; all conclude that Sir Walter Raleigh brought it first in use. It is observed that no one kind of foraign Commodity yieldeth greater advantage to the publick than

54 Samp comes from an American Indian word, saupac, meaning "made soft, or thinned." It consisted of bruised or broken dry Indian corn or maize, which, when boiled, was eaten with milk. It is a coarse sort of hominy. In New York State, in our boyhood days, samp and cracked corn were synonymous. (Felter.)

55 Phaseolus vulgaris L. (Tuckerman).

56 Chamfered, mis-spelled above, probably by printer. Cucurbita Pepo L. (Felter.) 57 Citrullus vulgaris Schrad. (Cucurbita Citrullus L.). Watermelon. (Felter.)

⁵¹ Myrica asplenifalio (Comptonia asplenfolia (L.) Aiton). Tuckerman says Josselyn was the earliest known to him to mention the name sweet-fern. (Felter.)

⁵² The term Flux (pl. fluxes) was a common one in early medicine, both domestic and professional, for "a fluid discharge from the bowels or other part; especially an excessive and morbid discharge; as the bloody flux or dysentery" (Webster's Dict.) (Felter.)

⁵³ Zea Mays L. Maize, Corn or Indian Corn. (Felter.)

Tobacco, it is generally made the complement of our entertainment, and has made more slaves than Mahomet. . . . [P. 76] The Indians in New Englang use a small round leafed Tobacco, called by them, or the Fishermen Poke.⁵⁸ It is odious to the English. . . ."

TOBACCO ⁵⁹ [p. 76]: "The vertues of Tobacco are these, it helps digestion, the Gout, the Tooth-ach, prevents infection by scents, it heats the cold, and cools them that sweat, feedeth the hungry, spent spirits restoreth, purgeth the stomach, killeth nits and lice; the juice of the green leaf healeth green wounds, although poysoned; the Syrup for many diseases, the smoak for the Phthisick,⁶⁰ cough of the lungs, distillations of Rheume ⁶¹ and all diseases of a cold and moist cause, good for all bodies cold and moist, taken upon an emptie stomach, taken upon a full stomach it precipitates digestion, immoderately taken it dryeth the body, enflameth the bloud, hurteth the brain, weakens the eyes and the sinews."

"WHITE HELLEBORE ⁶² [pp. 76-77] is used for the Scurvie by the *English*. A friend of mine gave them first a purge, then conserve of Bear-berries,⁶³ then fumed their leggs with vinegar, sprinkled upon a piece of mill-stone made hot, and applied to the sores white *Hellebore* leaves; drink made of *Orpine* ⁶⁴ and *sorrel* ⁶⁵ were given likewise with it, and Sea-scurvie grass.⁶⁶

⁶⁰ Phthisis: variously spelled in Josselyn's works ptisick and phthisick. (Felter.)

⁶¹ Rheume. Rheum or Rheuma comes from the Greek, meaning "flux," or "to flow," and in early medicine had reference to any watery or catarrhal discharge. (See Dorland's, Gould's and other dictionaries). Epidemic rheume was Influenza, particularly of the moist type. Hooper (Medical Dict. of 1850) gives: "Rheuma—the discharge from the nostrils, or lungs, coming from cold; hence, the following lines of the School of Salernum:

> Si flit ad pectus, dictur rheuma catarrhus, Ad fauces branchus, ad nares esto coryza." (Felter.)

⁶² Veratrum viride Ait. Green Hellebore, American White Hellebore or Indian Poke, often mistaken by others for the European Veratrum album or White Hellebore. (Felter.)

⁶³ Bear-berries [see also "Rarities," p. 65] are Cranberries (Vaccinium Oxycoccus L, (small cranberry) and Vaccinium macrocarpon Aiton (large or American cranberry). (Felter.)

⁶⁴ Orpine is a Sedum or Stonecrop, probably here the Garden Orpine or Live-for-

ever, Sedum purpureum Tausch. (Felter.)

⁶⁵ Elsewhere ["Rarities," p. 54] Josselyn refers to the "sorrel, with the yellow flower," accepted by Tuckerman as the Oxalis corniculata L., or Lady's Sorrel. Two other "sorrels" are common to America—the Oxalis Acetosella L. (common Wood Sorrel or White Wood Sorrel) and the Rumex Acetosella L. (Field or Sheep Sorrel), the latter a dock very common in sheep pastures. As the docks are commonly known

⁵⁸ See notes by Tuckerman in "Rarities," pp. 54-55., reproduced in this series (see note 35, under Josselyn's "Rarities"). (Felter.)

⁵⁹ Nicotiana Tabacum L. Tobacco. All of this note concerning Tobacco is italicized by Josselyn, showing the great importance he evidently attached to tobacco. See also note 35 on Tobacco under Josselyn's "Rarities." (Felter.)

To kill lice, boil the roots of *Hellebore* in milk, and anoint the hair of the head therewith or other places."

"SARSAPARILLA⁶⁷ [p. 77] or rough bind-weed (see the rarities of New England). The leaves of the *Sarsaparilla* there described pounded with Hogs grease and boiled to an unguent, is excellent in the curing of wounds."

"LIVE FOR EVER⁶⁸ [p. 78], it is a kind of *Cud-weed*, flourisheth all summer long till cold weather comes in, it growes now plentifully in our *English* Gardens, it is good for Cough of the lungs, and to cleanse the breast taken as you do Tobacco; and for pain in the head the decoction, or the juice strained and drunk in Bear, Wine, or Aqua vitæ,⁶⁹ killeth worms. The Fishermen when they want Tobacco take this herb being cut and dryed."

WATER-LILLYS⁷⁰ [p. 80]: "The black roots dryed and pulverized, are wondrous effectual in stopping of all manner of fluxes of the belly, drunk with wine or water."

HERBA-PARIS⁷¹ [p. 80]: "One berry, herb true love, or four-leaved nightshade, the leaves are good to be laid upon hot tumours."

⁶⁶ A kind of cress, of the mustard family, of which several species have been called Scurvy-grass. Particularly the plant Scurvy-grass (*Cochlearia officinalis* L.) or Spoonwort growing in northern Europe and Arctic America, "was highly prized by Arctic explorers for food and as a remedy for scurvy" (Standard Dict.). Possibly this was the plant called by Josselyn "Sea-scurvie grass." *Barbarea verna* (Mill) Asch. (Early Winter Cress), introduced from Europe and naturalized from Massachusetts southward, according to Gray's Manual (fourth ed.), is somewhat cultivated as a winter salad, under the name of Scurvy Grass. (Felter.)

⁶⁷ In "Rarities" Josselyn mentions Sarsaparilla [as Sarsaparilia], two plants, one thornless and the other with thorns. Tuckerman assumed the first to be Aralia nudi caulis L., known as Wild Sarsaparilla, and the second as Aralia hispida Vent., the Bristly Sarsaparilla or Wild Elder. The plant here referred to as Rough Bind-weed would seem to be the latter. (Felter.)

68 Antennaria margaritaceae (L.) Br. Everlasting. (Felter.)

⁶⁹ Aqua vitae. Either Brandy or Whiskey is probably meant by Josselyn. According to Hooper (Medical Dict., 1850), "ardent spirit of the first distillation has been distinguished in commerce by this name;" Gould (Practitioners' Med. Dict.), "Brandy or spirit;" Dorland (Med. Dict.), "Brandy." In the latest (seventh) edition of Remington's Pharmacy (1926) we are told that we have "no definite record of strong alcoholic liquors prepared by distillation until Arnold of Villanova, who wrote in the latter part of the thirteenth century, and who called such a product aqua vini or aqua vitae." (Felter.) ⁷⁰ Nymphaea advena Aiton (Nuphar advena Ait.). Yellow Pond Lily or Spatterdock. (Felter.) ⁷¹ Most likely Cornus canadensis L. Bunch-berry or Dwarf Cornel. (Felter.)

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as "Sorrel" and the Oxalis family as "Wood Sorrel," it is more than likely that Josselyn had the last named in mind. However, as only the common name is given and no description, in "Voyages," we are left in the dark as to the author's species. The fact that he mentions "Sorrel" in one instance in "Rarities" and "Wild Sorrel" in another gives some light, and would seem to indicate that he might have meant some other plant than the white or the yellow species of Oxalis in this connection. However, as all of the sorrels and wood sorrels are acid vegetation, any one of them might have served equally in the treatment of scurvy. (Felter.)

"UMBILICUS VENERIS⁷² [p. 80], or *New-England* daisie, it is good for hot humours, *Erisipelas*, St. *Anthonie's* fire, all inflammations."

GLASS-WORT ⁷³ [p. 80], "a little quantity of this plant take for the Dropsie, but be very careful that you take not too much, for it worketh impetuously."

"WATER-PLANTANE⁷⁴ [p. 80], called in *New-England* water Suck-leaves, and Scurvie-leaves, you must lay them whole to the leggs to draw out water between the skin and the flesh."

"CORALINE⁷⁵ [p. 81], laid to the gout easeth the pain."

"Avens⁷⁶ [p. 79], or herb-bennet; [you have an account New England rarities] but one thing more I shall add, that you may plainly perceive a more masculine quality in the plants growing in New-England. A neighbor of mine in Hay time, having overheat himself, and melted his grease, with striving to outmowe another man, fell dangerously sick, not being able to turn himself in his bed, his stomach gon, and his heart fainting ever and anon; to whom I administered the decoction of Avens-Roots and leaves in water and

⁷² Tuckerman believes this undoubtedly to be the Virginian or Early Saxifrage (Saxifraga Virginiensis Michaux). He adds that the properties he assigns here (see others in "Rarities, p. 58) are those attributed in Johnson's edition of Gerarde's Herball to Great navel-wort or Wall pennywort (Cotyledon umbilicus Huds.). In "Rarities" Josselyn names it "New England Daysie, or Primrose" . . . a "kind of Navel Wort." (Felter.)

73 Salicornia europaea L. (Salicornia herbacea L.) (Felter.)

⁷⁴ Alisma Plantago-aquatica L. Water plantain. (Felter.)

⁷⁵ Coralline, "a submarine, semicalcareous or calcareous plant, consisting of many jointed branches" (Webster's Dict.). Parkinson ("Theatrum Botanicum," pub. 1640) discourses in his intimate and entertaining manner upon "Huscus marinus Corallina dictus, Hard Sea Mosse or Coralline," devoting a whole chapter to the subject. He takes note of and describes six species. Of the first or Common White Coralline he writes: "The ordinary Coralline which is used in the Apothecary shoppes, is a sort of white, hard or stony Mosse, growing usually on the Rocks in or neere the Sea, rising either from the stones thereof, or the shells of Scallops, Oysters, or the like, and groweth not above an handfull high, spreading sundry small branches like a greene herbe, with divers small, short leaves, like hairs thereon, which is soft under water. This is our ordinary Coralline, which is gathered in all our Coasts Westwards, and in those Northerne parts of *Europe*, as farre as I can learne, but some have affirmed that it hath beene found somewhat reddish, growing upon the Corall it selfe, which is not found but in the deeper Mediterranean Seas, on Rockes under water." Of its "Vertues" he says: "Coralline is in a manner wholly spent among us to kill the wormes in children, or in elderly persons, and as the matter so the manner, not knowne but in these latter times to Authours, but by what quality it worketh this effect is not declared by any, for it is altogether insipide, or without taste of heate or cold, as Corall it selfe is, and if Corall be so much commended against the stone and fluxes,

crampes, the falling sicknesse, and melancholy, &c. as you shall have in its proper Chapter, doe not thinke but these may conduce somewhat thereunto also." By such elaboration did the old herbalists, who sought to extend the medical knowledge of plants to the people, compose with their goose-quils such ponderous tomes as the one before us; and gave comparatively as much space and time to the most trivial of substances—substances which belong now to a closed page of the past. (Felter.)

⁷⁶ Geum strictum Aiton. (Felter.)

wine, sweetening it with Syrup of Clove-Gilliflowers,⁷⁷ in one weeks time it recovered him, so that he was able to perform his daily work, being a poor planter or husbandmen as we call them."

"SEA-OAKE⁷⁸ [. 81], or wreach, or Sea-weed, the black pouches of Oarweed dryed and pulverized, and drunk with White-wine, is an excellent remedy for the stone."

[Pp. 81-82]: "I will finish this part of my relation concerning plants, with an admirable plant for the curing and taking away of Corns, which many times sore troubled the Traveller: it is not above a handful high; the little branches are woodie, the leaves like the leaves of Box,⁷⁹ but broader and more thicker, hard and of a deep grass-green colour; this bruised and champt in the mouth and laid upon the Corn will take it away clean in one night."

THE FOX [p. 83]: "Their fat liquified and put into the ears easeth the pain."

THE WOLF [p. 85]: "The Fangs of a *Wolf* hung about children necks keep them from frighting, and are very good to rub their gums with when they are breeding of Teeth, the gall of a *Wolf* is Soveraign for swelling of the sinews; the fiants or dung of a *Wolf* drunk with white-wine helpeth the *Collick.*"

"THE WILD-CAT [p. 85], Lusern or luceret or Ounce as some call it . . . their grease is very soveraign for lameness upon taking cold."

THE RACCOON OF RATTOON [p. 85]: "Their grease is soveraign for wounds with bruises, aches, streins, bruises; and to anoint after broken bones and dislocations."

THE MOOSE OF ELKE [p. 91]: "The bone that growes upon their heart is an excellent Cordial."

THE BEAR [p. 92]: "One Mr. *Purchase* cured himself of the *Sciatica* with *Bears*-grease, keeping some of it continually in his groine. It is good too for swell'd Cheeks upon cold, for Rupture of the hands ⁸⁰ in winter, for limbs taken suddenly with *Sciatica*, *Gout*, or other diseases that cannot stand upright nor go, bed-rid; it must be well chaft ⁸¹ in, and the same cloth laid on still; it prevents shedding of the hair occasioned by the coldness of winters weather; and the yard ⁸² of a *Bear* which as a Doggs or Foxes is bonie, is good for to

Oar-weed is common as referring to "any large seaweed of the genus Laminaria; tangle; kelp" (Webster's Dict.). "So called from becoming tangled with the oars" (Standard Dict.). (Felter.) 79 Buxus sempervirens L. (Felter.) 80 Chapped hands. (Felter.)

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81 Rubbed in with friction. (Felter.)

82 Penis. (Felter.)

⁷⁷ Clove Pink (Dianthus Caryophyllus). (Felter.)

⁷⁸ Possibly a species of Fucus (vesiculosis?) or Bladder Wrack, though the name

expell Gravel out of the kidneys and bladder, as I was there told by one Mr. Abraham Philater a Jerseyman."

THE BEAVER [p. 93]: "Their stones ⁸³ are good for the palsie, trembling and numbness of the hands, boiling them in Oyl of *Spike*, and anointing the sinews in the neck. If you take of *Castorium* two drams, of womans hair one dram, and with a little Rosen of the *Pine*-Tree, make it up into pills as big as Filberts and perfume a woman in a fit of the mother ⁸⁴ with one at a time laid upon coals under her nostrils, it will recover her out of her fit. The grease of a *Beaver* is good for the Nerves, Convulsions, Epilepsies, Apoplexies, &c. The tail as I have said in another Treatise, is very fat and of a masculine vertue, as good as *Eringo's* ⁸⁵ or Satyrion ⁸⁶ Roots.

HAWKES [p. 96]: "Hawkes grease is very good for sore eyes."

THE VULTURE OF GEIRE [p. 96]. . . Gripe, "the bones of their head hung about the neck helpeth the head-ach."

THE OWL [p. 96]: "Plinie⁸⁷ writes that the brains of an Owl asswageth the pain & inflammation in the lap of the ear. And that Eggs of an Owl put into the liquour that tospot⁸⁸ useth to be drunk with, will make him loath drunkenness ever after."

THE TURKIE [p. 99]: ". . . Turkie-Capon, their Eggs are very whole-

⁸³ Testicles. (Felter.)

⁸⁴ Hysterical convulsions. (Felter.)

⁸⁵ Eryngium species, still known as Eryngo, is probably referred to by Josselyn. Most likely the Sea Holly (Eryngium maratinum) is the plant intended, the roots of which were formerly candied and used as an aphrodisiac. Parkinson (A. D. 1640) devotes a large chapter to the various kinds of Eryngium or Sea Holly. He speaks of the long roots, eight to ten feet long, "of a pleasant taste, but much more delicate, being artificially preserved and candied with sugar." This, he *E. maritinum*, is termed by "we in English Sea Holly, or Sea Hulver." He concludes his long discourse on a remedy for so many major ailments that one wonders whether any other medicine would ever be needed for any purpose—"helpeth Venereal actions and is good against the French disease" . . . the ointment is salted lard "applied to broken bones, thornes, &c., remaining in the flesh, doth not only draw them forth, but healeth up the place againe, gathering new flesh where it was consumed, or almost fallen away" with that chief concern of man expressed in the statement, "much used by the Natives to incite Venery both rootes and heads." Hence Josselyn's comparison. The name Eryngium is of uncertain origin, but was used centuries ago by Dioscorides. (Felter.)

⁸⁶ Orchis, probably a species of Habenaria, or, as referred to by Tuckerman under an older classification—that of *Platanthera* Rich. (Felter.)

⁸⁷ Pliny. (Felter.)

⁸⁸ Tospot. A word now obsolete and rarely found in the ordinary dictionaries.

From the context we have assumed that Josselyn probably meant what we would now term a toper or bibber, rendered also bibler, bibbler, or bibbeler. This construction is confirmed by the Century Dictionary, which gives tosspot (formerly also tospot) as "a toper or tippler." "After the seuennights fast is once past, then they returne to their old intemperance of drinking, for they are notable *tospots*" (Hakluyt's "Voyages," I, 253). "A good part he drank away (for he was an excellent *toss-pot*") (Lane, "Two Races of Men"). (The Century Dictionary.) (Felter.)

some and restore decayed nature exceedingly.⁸⁹ But the *French* say they breed the Leprosie."

SHARKES [p. 106]: "The pretious stones in their heads (soveraign for the stone in a man) so much coveted by the travelling Chirurgeon is nought else but the brains of the flat-headed *Sharke*."

THE DOLPHIN [p. 107], Bonito or Dozardo, the ashes of their teeth mixed with honey, is good to asswage the pain of breeding teeth in Children."

SEA-TURTLES [p. 109]: "The ashes of a Sea-Turtle mixed with oyl or *Bears*-grease causeth hair to grow: the shell of a land-*Turtle* burnt and the ashes disolved in wine and oyl to an unguent healeth chaps and sores of the feet: the flesh burnt and the ashes mixt with wine and oyl healeth sore legs: the ashes of the burnt shell and the whites of eggs compounded together healeth chaps in womens nipples; and the head pulverized with it prevents the falling of the hair, and will heal the Hemorrhoids, first washing of them with white wine, and then strewing on the powder."

THE MUSCLE [p. 110]: "Sea-muscles dryed and pulverized and laid upon the sores of the *Piles* and *hemorrhoids* with oyl will perfectly cure them."

TROUTS [p. 111]: "Their grease is good for the Piles and clifts." 90

RATTLE-SNAKE [pp. 114-115]: "The fat of a Rattle-snake is very Soveraign for frozen limbs, bruises, lameness by falls, Aches, Sprains. The heart of a Rattle-snake dried and pulverized and drunk with wine or beer is an approved remedy against the biting and venome of a Rattle-snake. Some body will give me thanks for discovering these secrets and the rest; Non omnibus omnia conveniant." ^{90a}

SNAKES [p. 115]: "Their skins likewise worn as a Garter is an excellent remedie against the cramp."

GOATS [p.1 92]: "I was taught by a *Barbary Negro* a medicine which before I proceed any further I will impart unto you, and that was for a swelling under the throat. Take *Goats* hair and clay and boil them in fair water to a poultis, and apply it very warm."

GILLYFLOWERS ⁹¹ [p. 188]: "Our *English* dames make Syrup of them without fire, they steep them in Wine till it be of a deep colour and then put to it spirit of *Vitriol*,⁹² it will keep as long as the other."

90a Do we scent here in these "secrets" of Josselyn a glimpse into the future of the evolution of medicine—a forerunner of homeopathic therapeutic philosophy, or of modern organotherapy? (Felter.)

91 Clove Pink (Dianthus Caryophyllus). Word is derived from July Flower. See under Josselyn's Voyages, Note 1. (Felter.)

92 Sulphuric acid (Hooper's Medical Dict.), a term once used for this acid. The name "oil of vitriol" is still in common use for sulphuric acid. (Felter.)

⁸⁹ Loss of sexual power. (Felter.)

⁹⁰ Clift, a Cleft, "a crack" (Webster's Dictionary), probably, from its association with piles in this account, Josselyn refers to anal fissure. (Felter.)

[Josselyn, having reached the end of his work, undertakes to deal with those skeptics who seemed to have doubted his "Relations." He writes :----F.]

"I have done what I can to please you." . . . "I have piped and you will not dance, I have told you as strange things as ever you or your Fathers have heard." "yet I could (it is possible) insert as wonderful things as any my pen hath yet gone over, and may, but it must be on condition you will not put me to the proof of it. *Nemo tenetur ad impossibilia*, no man is obliged to do more than is in his power, is a rule in law. To be short; if you cannot with the *Bee* gather the honey, with the Spider suck out the poyson, as Sir *John Davis* hath it.

> The Bee and Spider by a divers power Suck honey and poyson from the self-same flower.

..... To conclude; if with your mother wit you can mend the matter, take pen in hand and fall to work, do your Countrey some service as I have done according to my Talent. Henceforth you are to expect no more Relations from me. I am now return'd to my Native Countrey, and by the Providence of the Almighty, and the bounty of my Royal Soveraigness am disposed to a holy quiet of study and meditation for the good of my soul; and being blessed with a transmentitation or change of mind, and weaned from the world, may take up for my word, *non est mortale quod opto*. If what I have done is thought uprears for the approvement of those to whom it is intended, I shall be more than meanly contented." [Voyages, p. 151.]

[At p. 215, "Voyages," Josselyn concludes the whole matter :---F.]

"Now by the merciful providence of the Almighty, having perform'd Two voyages to the North-east parts of the Western-world, I am safely arrived in my Native Countrey: having in part made good the *French* proverb, Travail where thou canst, but dye where thou oughest, that is, in thine own Country."

Finis.



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