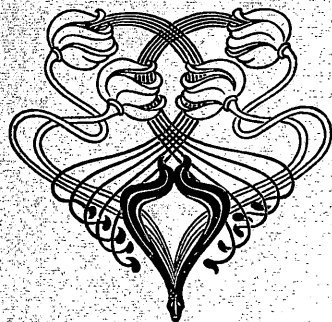


D. IO. DAVIDIS SCHOEPF  
SEREN. MARGGRAV. BRAND. ONOLD. ET CVLMB.  
MED. AVL. ET MILIT. COLL. MED.  
MEMBR.


MATERIA  
MEDICA  
AMERICANA

POTISSIMUM  
REGNI VEGETABILIS



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ERLANGAE  
SVMTIBVS IO. IAC. PALMII  
MDCCLXXXVII.



Ne sylvae quidem, horridiorque Naturae facies Medicinis carent, sacra illa Parente rerum omnium nusquam non remedia disponente homini, ut Medicina fieret etiam solitudo ipsa. — Hic nata Medicina. — Haec sola Natura placuerat esse remedia *parata vulgo, irventu facilia, ac sine impendio.*

PLIN. *Nat. hist.* XXIV. I.



## P R A E F A T I O .

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**S**uperfluum forte me suscepisse laborem, colligendo Materiam Medicam Vegetabilem Americae Septentrionalis, qui objiciant non derunt. Dum enim, recentiori nostro aevo, in tam multiplicem varietatem creverit apparatus medicamentorum, et clarissimi nostri temporis viri omnem conferant operam, ut pharmacopolia pondere superfluorum inutiliumque liberentur, nova ex altera parte continuo proponi laudarique, aequae faepe inertia ac futilia, plurimi, et jure quidem, conqueruntur. Ne gravius itaque illorum judicium incurram, paucis propositi et originem et rationem explicare necesse videtur. Per septem fere annos in variis Americae Septentrionalis partibus degens, quod reliqui temporis horarumque subsecivarum habebam, rei herbariae Studio destinabam. Sollicitus autem, ne omnino inutili quasi curiositate tempus contere-

rem, in proprium usum annotare coepi illas plantas americanas, quae minus adhuc cognitae quoad vires essent et usum. Idem feci, cum postea, pace restituta, Provincias Americanas australiores, Terram Marianam nempe, Virginiam et quae his adjacent Montium juga, utramque Carolinam, Floridam et Bahamenses Insulas visitarem; sedulo abique quaeritavi, quatenus stirpium indigenarum in medicos usus verterentur, et quaecunque sciscitanti mihi a Medicinae Practicis, Empiricis, ruricolis, immo et vetulis, indicatae vel monstratae fuere plantae, eas omnes consignavi, et quidquid de viribus illarum eruere potui, adjeci. Sic tandem factum est, ut catalogum Simplicium longum haberem, inter quae varia omnino nova, vel paucis tantum vulgata, alia autem iam magis cognita essent. Non potui non mirari divitias, quas Optima Natura Americam inhabitantibus dedit, et liberalitatem insignem, qua ad morborum sat validum exercitum profligandum, omnia, vel *maxime necessaria quidem* adjumenta, regionibus illis longe lateque extensis subministravit; simul autem dolebam, tam multa et incomparabilia medicamenta indigena et euporista, in ipsa illa America neglecta fere, vel paucioribus tantum familiaria esse incolis. Plurimi enim, Medicinam in America exercentes, ceterum eruditi et laude digni Viri, cum vel in Scholis europaeis, vel etiam in Collegiis quae in America extant,

Artis

Artis Machaomae rudimenta posuerint, Materiam Medicam suam tamen secundum usitata (Medicorum Europaeorum) compendia edocti sunt; et sic, viam tritam prosequentes, negligunt qui per singulas suas provincias frequentari solet, domesticum simplicium apparatus, et uti ubique fere mos est, ab exteris desiderant, quibus maxime abundant. Varias huius incuriae assignari debent rationes. Displicet aliis pomposa Medicaminum farrago, et selectiori praestantiorum apparatus sese adstringentes reliqua omnia spernunt. Alii infra Medici dignitatem esse putant, euporistas et indigenas adhibere medicinas. Tritam denique deserere viam alii nolunt, alii nesciunt, novarumque rerum periculum facere non quilibet audent, facilius enim creduntur, quae a Magistro, ut experta proponuntur, et quae cum antiquitate veritatis sigillum habere iudicantur. Cum primis autem denominatis modo rationibus addere debemus, neglectum hucusque, inter Americanos, studium historiae naturalis, et Botanices in specie. Hujus enim perterriti difficultate, nobilissima vilis justo pendebatur scientia, quae nunc tantum magis magisque adamari incipit. Commoda inde precipienda non equidem fugiebant Viros boni publici studiosos, qui multis abhinc annis et fervide optabant\*), ut indigenarum plantarum qualitates et usus magis inquirerentur.

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Ad

\*) Videantur *Acta Societ. Philos. Americ. Vol. primum.*

Ad id impetrandum autem Rei herbariae notitiam imprimis necessariam esse, nemo inficias ibit, nisi qui coeco quodam modo experimenta capere velit, vel capta cum aliis communicandi, et corpora de quibus agitur rite determinandi, omnino incurius sit. Sic jamdudum inter *Medicinae Obstacula* recensuit Illustr. a LINNE', Medicorum et Pharmacopoeorum inscitiam in re botanica, ignorationem classium naturalium et Euporistorum neglectum \*). Cum itaque, colligendo plantas Americae medicinales, plus fecissem quam ullus ante me, et latiore earum notitiam nactus essem, animum cepi in ipsa America, catalogum illarum occasione data publici juris faciendi; in eo etiam proposito, a plurimis Amicis Americanis, incitatus verbis et litteris fui. Ad id tamen perficiendum negotium mihi in itinere per Americam constituto, otium et opportunitas nulla fuit; dum simul destitutum me videbam necessariis adminiculis ad sistendam, quatenus liceret, absolutam Materiae Medicae Americanae historiam. Cognitum enim mihi erat, jamdudum *Observationes quasdam, de viribus et usu variarum Amer. Sept. plantarum a BARTRAMO consignatarum* \*\*) publici juris fecisse Illustr. a LINNE'; nec latuit CLAYTONIVM, in Flora Virginica, COLDENIVM in Flora Nove-

\*) Vid. Dissert. huius tituli, Amoen. acad. Vol. III.

\*\*) Specifica Canadensia. Amoen. academic Vol. IV. Diss. LXXII.

Noveboracensi \*), KALMIVM in itinero suo, CATESBAEVVM in historia Stirpium Carolinae, et ANONYMVM quemdam de Plantis Georgiae \*\*), ut alios taceam, calculos suos adjecisse, quorum observata et annotata conferre, meisque addere in rem fore credidi, ut omnem, quam de viribus et usu plantarum Americanarum, e vivis et mortuis colligere liceat notitiam, simul exhiberem.

Hasce igitur pagellas, si Medicinam in America profitentibus, et civibus americanis in universum, gratas esse mihi subblandior, easdem et Medicis Europaeis utiles esse quodammodo spero. Multa certe debemus et nobilia medicamenta, occidentalibus illis regionibus, utriusque nempe Americae, quorum nonnulla adeo familiaria et trita nobis facta, ut illis forte Medicorum Europaeorum nullus carere vellet. Horum autem cognitio plura noscendi desiderium, et majores expectationes continue commovebat, ut quaecumque ex illa orbis parte afferebantur, ambabus semper manibus acciperentur. Gratum ex hac caussa habebunt Medici et Scientiae Naturalis Cultores Europaei, Syllabum hunc, uno intuitu, quaecumque in vastis illis terris Septentrion. Am. hucusque innotuere medicinas exponentem. Omnes certe hae non sunt; latet enim

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enim

\*) In Actia Holmiensibus.

\*\*\*) Hamburg. Magaz. Vol. XVIII.

enim adhuc partium interiorum cognitio plenaria; nec aliquarum notitiam me fugisse negabo. Licet porro haec simpliciam remotarum terrarum notitia commodum vel utilitatem medicis Europaeis absolutam spondere non videatur, calculum saltem adjecisse sufficiat ad cognitionem generalem herbarum in hominis commodum creatarum. Sed, si eas me solummodo nominare debuisse plantas, moneret Censor iniquus, quarum Viri supra laudati mentionem nullam fecere, et quas novas addidi, tunc nec uni, nec alteri parti me satisfacisse luculenter apparebit. Exigebat enim instituti ratio, ut nomina, qualitates et vires etiam illarum plantarum, quae nobis in Europa iam ad amussim cognitae sunt, denuo et verbotenus insererentur. Brevioribus autem et concisioribus, quam quae Ill. LINNAEI *Materia medica* habet verbis hoc vix fieri potuisset; eos itaque integros titulos huc transcribentem, stulti plagiarii contumelia me non assequitur. Quoniam brevitatis simul et perspicuitatis ratio habenda erat, methodum Linneanam in reliquis quoque sequi ratum habui; disjunctis ideo lineis, Nomen Specificum, Synonyma, Loca natalia, Pharmacopoeorum Nomen, Qualitates, Vires et Vsus indicavi.

Quae et qualia accepi reddo. Assertorum veritatem experiendo vel observando evincere omnino non potui. Nec negabo, esse forsitan inter plantas recensitas, aliquas quarum usus expectationi



tioni et pollicitationi minus satisfaciant; plurimas tamen dictam de se laudem effectu sustenturas esse non dubito. Ulteriore ergo hujus rei indaginem, Medicis Americanis, quibus et opportunitas datur, et Medicinae, Patriaeque commodum curae cordique esse debet, etiam atque etiam commendatam esse volumus. Absentibus interea et posteris me consulturum credidi; *enumerando* herbas quarum commendata est virtus; *efficiendo* ut quae profuisse olim jam comperta sunt, oblivioni eriperentur; *divulgando* domesticas medicinas, paratas vulgo, inventu faciles et sine impendio; *dirigendo* Americanorum attentionem in bona sua indigena; *demonstrando* tandem, quantum Medici, bene nosse plantas indigenas, intersit. Videbunt enim Americani, ex vasta hac Simplicium suorum designatione, se facile si vellent, nisi omnibus, saltem plurimis peregrinis carere posse medicinis. Tot enim et tam diversas eorum Terrae gignunt et producunt plantas, pro ratione situs et soli, ut quotcunque remedia ad rationalem medicinam exercendam desiderantur, paucissimis exceptis, ex proprio gremio desumi possint. Nam illarum regionum situs, ab extimo Septentrione, Austrum versus extensus, in continente Americae Septentrionalis magis, quam in ullo alio, omnia climata et omnium climatum plantas conjungit. Quae naturalis conjunctio magis adhuc proficit, inde quod Coloniae Orientem spectantes, veluti

uno sanguine natae, eadem lingua, legibus moribusque utantur, unde et mercaturarum et litterarum mutuum commercium omnino facilitatur, et fructuosissimam studiorum, inventorum et notitiarum vicissitudinem sperare jubet.

Praeter plantas Americae hic enumeratas, plurimis certe, nisi omnibus indicationibus sufficientes, exotica nonnulla necessaria forte videbuntur ad omnes absolvendos numeros. Sed pauca sunt. Dabit igitur America Meridionalis vicina, et Indiae occidentis Insulae:

Chinae Corticem, Ipecacuanhae radicem,  
Vanillam, Zingiberis radicem, Costum dulcem,  
Piper nigrum et longum, Cinnamomum.

Ex India orientali, aliisque locis petenda:

Camphora, Caryophyllus aromaticus, Cinnamomum, Benzoë,  
Copaiva, Moschata, Myrrha, Gummi ammoniacum.

Alia quaedam ex Europa, ob commercii opportunitatem, hucusque desumuntur. Sunt autem et inter haec, quae re vera Americanis necessaria pronuntientur *paucissima*, quae tempore futuro facile omnia, in ipsis Americae hortis abundanter et parvo sumtu coli poterunt, ubi varietas coeli et soli nihil excludit. Ejusmodi sunt:

Cro-

Crocus, Manna, Mastix, Oliva, Opium, Rhabarbarum.

Sed et horum quibusdam, apta substituenda tempus indicabit forte, nisi ut certe fieri aliquando potest, aliquibus vel plurimis vacare didicerit medicus rationalis.

Extant porro in America plantae complures aliae, quae ob qualitates odoris et saporis vires medicas promittunt, etsi ut medicamenta nondum in usu sint; ex quarum numero sequentes tantum nominasse sufficiat:

*Salvia urticifolia.* Linn. Horminum sylvestre odoratum. Clayt.

*Ammi lacinulis foliorum capillaribus, caule angulato.*

*Odore Cumini.* Gr. virg. ed. n. 42.

*Sium rigidius.* L. Pimpinellae species aquatica foliis odoratis. Clayt. n. 279.

*Smyrniium integerrimum.* L. Umbellifera ignota, foliis odore grato praeditis. Clayt.

*Erythronium Dens Canis.* L. *Dogs Tooth*; cuius radices lacte vel jusculo carnis coctas edunt Tatari Sagaytici; aphrodisiacas esse credebat Dioscorides; Taeniam evacuare dicuntur.

*Lamium amplexicaule.* L. folio foetido. Clayt.

*Clinopodium incanum.* L. *Mountain - Mint*; odorem spirans gravem, aromaticum.

*Trichostema dichotomum.* L. odore grato balsamico.

*Chelone hirsuta.* L. odore foetido. Clayt.

*Arabis foliis ovatis.* Gr. virg. ed. n. 99. Tota planta cochleariae sapore praedita. Clayt.

*Lactuca canadensis.* L. amara, lactescens.

Gna

*Gnaphalium purpureum.* L. folia odore resinoso. Clayt.  
*Erigeron canadense.* L. Tota planta est odorifera. Clayt.  
*Solidaginis* species, foliis linearibus; quae trita *Anisum*  
*spirant.*

*Tetragonotheca helianthoides.* L. radice crassa odorata;  
 Mellon-Apple-flower. Clayt.

*Helianthus laevis.* L. folia odore grato praedita. Clayt.  
*Violae* variae, quarum radices forte vi purgante s. emetica  
 praeditae inveniuntur, uti plures hujus generis species.

*Typha latifolia.* L. Ob *dulcedinem* hanc plantam pap-  
 pis setisque refertam, pauperes in deliciis habere,  
 refert Clayt.

*Urtica pumila.* L. Planta odore grato. Clayt.

*Ioa frutescens.* L. Cortex odore Sambuci nigrae.

*Acnida cannabina.* L.

Attentionem quoque merentur variae Palmarum  
 Species, cultae et spontaneae.

Harum itaque ulteriorem investigationem  
 Medici americani commendatam sibi habeant;  
 ea tamen cura, ut *quae applicant* et quo suc-  
 cessu, observent sollicite. Novis sic experiundo  
 remediis ditescent. Est autem notatu dignum,  
 earundem plantarum vires, sub calidiori frigi-  
 diorique coelo crescentium, exaltari diminuive,  
 ut in variis plantis americanis compertum ha-  
 bemus; experimenta igitur repetita et dissitis in  
 regionibus instituenda sunt, ante quam de plan-  
 tae cujusdam jactatis virtutibus judicium fe-  
 ratur.

Sunt

Sunt adhuc aliae, quae nostratibus (Europaeis) FORTE substitui possent, si tales desiderarentur. e. g.

Gratiola virginica. <i>L.</i>	LOCO Gratiolae officinalis. <i>L. m. m. 82.</i>
Cyperus odoratus, compressus, strigosus.	— Cyperi longi, rotundi. <i>L. m. m. 103. 104.</i>
Lithospermum virginianum	— Lithospermi officinalis. <i>L. m. m. 131.</i>
Ophiorrhiza Mitreola. <i>Gr. virg.</i>	— Ophiorrhizae Mungos. Serpentina rad. <i>L. m. m. 144.</i>
Lonicera sempervirens.	— Lonicerae Periclym. s. Caprifolii. <i>L. m. m. 153.</i>
Ligusticum scoticum.	— Ligustici <i>Levistici.</i> — 211.
Parnassa noveboracensis.	— Parnass. palustr. s. Hepaticae albae. <i>L. m. m. 240.</i>
Lilium superbum, canadense	— Lillii candidi, s. lillii albi. <i>L. m. m. 250.</i>
Saxifraga pensylvanica.	— Saxifragae granulatae s. albae. <i>L. m. m. 318.</i>
Lythrum verticillatum.	— Lythri <i>Salicariae.</i> — 329.
Aquilegia canadensis.	— Aquilegiae vulgaris. <i>L. m. m. 384.</i>
Anemone quinquefolia.	— Anem. nemor. s. Ranunculi albi. <i>L. m. m. 390.</i>
Clematis virginiana.	— Clematid. rectae, s. Flammulae Iovis. <i>L. m. m. 591.</i>
Pedicularis canadensis.	— Pedicul. palustr. s. aquaticae. <i>L. m. m. 431.</i>

Galega virginica.	LOCO Galegae officinalis. <i>L. m.</i> <i>m.</i> 483.
Hypericum canadense	— Hyperici perforati. <i>L. m.</i> <i>m.</i> 492.
Tragopogon virginicum.	— Tragopogi pratensis. <i>L. m.</i> <i>m.</i> 493.
Gnaphalium plantaginifol.	— Gnaphalii dioici. <i>L. m. m.</i> 517.
Doronicum. <i>Gr. virg.</i> 126.	— Doronici pardalianch. <i>L.</i> <i>m. m.</i> 524.
Orchis ciliaris.	— Orchid. bifoliae et Morionis, vel Satyrii et Salep radicum. <i>L. m. m.</i> 543. 544.
Menispermum canadense.	— Menispermi Cocculi. (indici) <i>L. m. m.</i> 603?
Cissampelos smilacina.	— Cissamp. Pareirae (bravae) <i>L. m. m.</i> 607.
Andropogon aliquod.	— Andr. Schoenanthi s. Nardi. <i>L. m. m.</i> 612. 613.
Polypodium virginianum.	— Polypodii vulgaris. <i>L. m. m.</i> 631.
Lycopodium rupestre.	— Lycopodii (musci) clavati. <i>L. m. m.</i> 634.

Bahamenses Insulae, strictiori sensu ad Americam quidem septentrionalem non pertinent; attamen cum varia et praestantiora quaedam suppedient Medicamina, haec ut insererentur non abs re fore credidi; id enim excusabit vicinitas, et facile et constans inter illas partes commercium, deinde climatam, et naturalium commodorum, similitudo, quam

quam australiores Floridae partes cum illis insulis habent. Protenditur enim Floridae peninsula ad 25 Grad. latitudinis, et plurimae Insulae Bahamenses sub eadem, et altiori adhuc, latitudine jacent. Observandum quoque, quod Continens Americae Septentrionalis, secundum divisionem geographicam, includat etiam Isthmum illum Sinum Mexicanum inter et Mare pacificum, Provinciam nempe Mexicanam et alias; ut itaque, si sensu latiori rem sumere placuisset, multo plures, quas Zona torrida alit, plantas, catalogo nostro inseri potuissent. Sed nimiam evitandi studens prolixitatem, me illis tantum adstrinxi regionibus, quas ipse quoad majorem partem permigravi.

Nomina plantarum vulgaria anglicana omni cura collegi, ut iis etiam proficius sim, qui botanica abhorrent; ast tam varia sunt in diversis partibus, et vacillantia, ut diversis plantis saepe adponantur nomina eadem, iisdemque saepe diversissima. Plantas nonnullas obscuras, et quarum nomina trivialia tantum accepi, omni studio extricare annisus sum, ut nomen systematicum pro certiori indagine habeatur; et hoc in labore maxime adstitit Ill. SCHREBERVS, cuius, pro summa qua in me semper usus est, quamve gratus semper venerabar, benevolentia, debitam mentionem facio.

Ex recensitis medicinis, quasdam casus detexit, dira necessitas alias, alias iterum Europaei Americam adeuntes ex analogia in usum vertebant. Plures tamen et praestantiores quaedam, *Indigenis Americis* debentur, qui vel sponte, vel amicitia pretiove allekti, colonis Europaeis easdem indicarunt. Multo plura autem et eximia adhuc ad varios morbos *specifica* iisdem *Indigenis Americanis* nota et familiaria esse, (quorum revelationem autem omni studio evitare dicuntur) in America ubique fere creditur. Nescio tamen quonam jure. Paucissima enim, si ulla, ex illorum remediis, specificorum nomine honorari merentur; particularibus enim indicationibus respondent; sic e. g. Antisyphilitica illorum, maximam partem, diuretica, sudorifera, vel drastica sunt. Medicinam plane empiricam exercent, nunc omnino optatissimo et mirando effectum, nunc summe contrario, cujus autem varias et obvias rationes, ex consideratione constitutionis, consuetudinum, vitae et dietae generis et dosium magnarum facile patet, id quod ulterius dilucidandi hic locus non est. In universum autem, medendo variis morbis illos feliciores nobis esse, sustinere nemo potest, licet nonnulli id persuasum sibi habeant. Contra Crotali s. Caudisonae Morsuram tot et qualitatibus suis adeo dissimiles commendantur herbae, ut plurimarum certe fidem et efficaciam suspectam habere debeamus, idque

eo



eo magis, cum experientia satis evictum sit, letalitem vel malignitatem talium vulnerum nimium variare secundum regionum, anni temporum, partium vulneratarum aliarumque multarum caussarum diversitatem, ita ut nil mali eveniat interdum, etiam omni neglecta medicina; ex altera parte autem negari non potest, easdem plantas, qualitates medicas omnino spondere utiles et investigatione ulteriore dignas; ideoque nullam omittere volui.

Loca plantarum natalia certiora tantum adposui, majorem illarum tamen numerum, vel omnes vel plurimae saltem Provinciae, communem habent; ubi unica igitur tantum indicata est provincia, eandem plantam in aliis quoque provenire ideo non negatur; quas vero in provinciis disjunctis, e. g. Canada — Virginia, vel Pennsylvania — Carolina habitare dixi plantas, easdem in omnibus quoque interjacentibus provinciis provenire, facile intelligitur.

Quae appendicis loco dantur nomenclaturae, simplicia sistunt ex regno animali et minerali Americano petenda, tam obsoleta quam usitata et in materiis medicis vulgo recensita. Videant Americani, et in his sibi fere sufficientem esse Patriam, licet horum regnorum divi-

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tiae,

tiae; mineralis praesertim, parum hucusque investigatae sint.

Dabam Baruthi die XXVI. Septembr.  
cIo Io cclxxxvi.





CLASSIS I.

# MONANDRIA.

## MONOGYNIA,

- I. SALICORNIA *herbacea patula*, articulis apice compressis, emarginato bifidis. *Linn. Spec. pl. 5. mat. med. 1. virginica.* — *Kelp. Glas-schmalz.*  
S. caulium ramorumque articulis apice bicornibus. *Gron. Fl. virg. 129. id. alt. 1.*  
LOC. Americae littora maritima. *Annua.*  
PHARM. *Salicornia* Herba. Soda.  $\ominus$   
QUAL. salsa; (hinc a pecoribus expetita.)  
*Culinaris, Rarior.*  
VIS: antiscorbutica, appetitum excitans. (Sal corrosivum.)  
VSVS: Scabies, Abscessus, Scelotyrbæ, Hyper-sarcosis  
COMP. Sapo venetus, Sal Seignette, Fel vitri,



## CLASSIS II.

# DIANDRIA.

## MONOGYNIA.

2. **LIGVSTRVM** *vulgare*. *Linn. Sp. pl.* 10.  
*Mill. Dict.* — *Privy. Rainweide*.  
 LOC. Noveboraci et Infulae longae colles, fruteta.  
*Frutex, vulgaris*.  
 PHARM. *Ligustri* Folia, Baccae.  
 QUAL. amariuscula, ingrata.  
 VIS: subadstringens.  
 VSVS: Angina, Labarium, Odontalgia, aliique oris et faucium morbi.  
 COMP. Gargarifmata.  
 Pigmentum purpureum vel nigrum, diversa praeparatione praebent baccae.
3. **OLEA** *europaea* foliis lanceolatis. *Linn. Sp. pl.* II. *mat. med.* 79. *Mill. Dict.* — *Olive-tree. Oelbaum*.  
 LOC. Georgia, Carolina. *Arbor, cicur*.  
 PHARM. *Olivae*, (fructus) conditae. ⓪.  
 QUAL. ⓪ pingue - blandum, infpidum, inodorum; *Conditae*, austerae.  
 VIS: ⓪ obtundens, emolliens. *Condit.* tonica, stomachia.  
 VSVS: Venena, Colica, Dysenteria, Rheumatismus, Tenesmus, Tussis, Morsus Canis rabidi.
4. **SY-**  
 3. Americana oleum vix praebet. Europaea autem facile crescit in provinciis australioribus, hyemesque bene fert intacta; de oleo exprimendo nulla adhuc experimenta facta. *Hamb. Mag. XVII. 489.*

4. SYRINGA *vulgaris*, foliis ovato - cordatis.  
*Linn. Sp. pl. p. 11. Mill. Dict. — Lilac,*  
*Pipe - tree,, Queüe de Renard.*

In hortis colitur, cicur.

Ex ligno, cum aqua defillato, obtinetur ☉ butyraceum, odore oleo Ligni Rhodii vel Santali flavi simili; infusum aquosum flavescens, odore grato balsamico; Tinctura spirituosa amaricans, evaporatione extractum Sanguini Draconis simile sistit.

5. CIRCAEA *tutetiana*, caule erecto, racemis pluribus. *Linn. Sp. pl. 12.*

*Circaea canadensis latifolia, flore albo. ibid. Gr. virg. ed. n. p. 2.*

LOC. Canadae, Noveboraci nemora, fruteta umbrosa. *Biennis.*

Radices colore flavo tingunt. Folia, in cataplasmatibus forma, ad Condylomata haemorrhoidal. externe, et infusum interne laudantur; (uti *Circ. alpina.*)

6. VERONICA *virginica*, spicis terminalibus foliis quaternis quinisque. *Sp. pl. 13. Amoen.*

*acad. 4. p. 519. 521. Gr. virg. 4. ed. n. p. 2.*

*Cold. noveb. 3. Mill. Dict. — Indian Physic, Physic-root, five leaved Wort, Indian Queatel,*

LOC. Pascua aprica. *Perennis, vulgaris.*

PHARM. *Veron. virg.* Radix. Decoct. rad. Manip. j. in lactis Libr. sem.

QUAL. amara.

VIS: purgans! emetica.

COMP.

VERONICA *officinalis*, spicis lateralibus pedunculatis, foliis oppositis, caule procumbente. *Linn. Sp. pl.* 14 *Mat. med.* 80.

Plantam huic simillimam in pascuis aridis, circa Libanon Pennsylvaniae, vidi. —

VIS: Veron. officin. adstringens, vulneraria, tonica.

VSVS: Cachexia.

7. VERONICA *Beccabunga*, racemis lateralibus, foliis ovatis planis, caule repente. *Linn. Sp. pl.* 16. *Mat. med.* 81.

Veronica foliis oppositis laevibus crenatis, floribus laxè spicatis ex alis. *Gr. virg. p.* 4. *ed. nov. p.* 2. *Mill. dict.*

LOC. Noveboraci, Virginea scaturigines.

*Perennis, frequens.*

PHARM. *Beccabungae* Herba, Conferva, Aqua.

QUAL. subinsipida, inodora, oleracea.

*Rarior, superflua.*

VIS: diuretica, discutiens?

VSVS: Scorbutus, Obstructiones Viscerum.

8. VERBENA *urticifolia*, tetrandra, spicis filiformibus paniculatis, foliis indivisis ovatis serratis acutis petiolatis. *Linn. Sp. pl. Mill. Dict.*

Verbena foliis ovatis, caule erecto, spicis filiformibus paniculatis. *Gr. virg. 7. ed. nov. p.* 4.

LOC. Canadae, Noveboraci, Virginiae arida.

*Biennis, cicur.*

PHARM. *Verbenae* Herba, Radix.

QUAL. Rad. amaro - adstringens. Herba insipida, inodora.

VSVS:

vsvs Radix, simul cum cortice interiore *Quercus albae*, lacte et aqua decoct., felici successu ad Erysipelas venenosum a *Toxicodendro* causatum adhibebatur in Castris Americanorum. Praestabat saepe, post Aqu. vegeto-mineral. frustra adhibitam.

Herba sub nomine *Purvain*, incolis Marilandiae in usu est.

9. LYCOPVS *virginicus*, foliis aequaliter serratis. *Linn. Sp. pl.* 30. *Gr. virg.* 8. ed. n. p. 5. *Mill. Dict.*

LOC. Noveboraci, Virginiae, campi aridi, fylvatici.

QUAL. Semina nitentia odorem balsamicum terbinthinatum spirant; folia odore debiliora, cum Vitriolo Martis colorem nigrum praebent.

10. CVNILA *mariana*, foliis ovatis serratis, corymbis terminalibus dichotomis. *Linn. Sp. pl.* 30. *Satureja organoides. Sp. pl.* 1. 568. — *Wild Basil; Dittany.*

*Thymus* foliis ovatis acuminatis serratis, corymbis lateralibus terminalibusque pedunculatis. *Gr. virg.* 64. *Ed. n.* 88.

LOC. Pennsylvaniae, Marylandiae, Virginiae sicca. *Biennis.*

## A 3

## PHARM.

10. *Caulis* acute quadrangulus, ramofus. *Folia* subsessilia, ovata, acuta, ferrata. *Corymbi* terminales et axillares dichotomi, *pedicellis* capillaribus, *bracteolis* linearibus. *Cal.* cylindr. 5-fidus, laciniis brevibus aequalibus acutis; 10-striatus, pilis nitentibus. *Os* calycis villosum. *Semina* quatuor.

PHARM. *Cunilae marianae* Herba.

QVAL. fragrans, spirans, odore Ocimum referens.

VIS: excitans, nervina.

VSVS: Febres intermittentes; Cephalalgia; succus expressus cum lacte ad morsuram serpentum.

11. *CUNILA pulegioides*, foliis oblongis unidentatis, floribus verticillatis. *Linn. Sp. pl.* 30. *Melissa pulegioides. Sp. pl.* 1. 593. — *Pennyroyal.*

*Melissa* floribus verticillatis glomeratis secundum longitudinem caulis, foliis tomentosis. *Gr. virg.* 167. *Ed. nov. p.* 90. *Cold. noveb.* 143. *Kalm. it.* 2. p. 314.

LOC. Canadae, Noveboraci, Virginiae sicca  
*Annua, vulgaris.*

PHARM. *Cunilae pulegioidis* Herba.

QVAL. spirans.

VIS: pellens, carminativa, resolvens, pectoralis, antispasmodica, diaphoretica.

VSVS: Palpitatio! Febres, Arthritis.

COMP. Infusum, Cataplasma.

12. *MONARDA fistulosa*, capitulis terminalibus, caule obtusangulo. *Linn. Sp. pl.* 32. *Am. acad.* 4. p. 533. *Mill. Dict. t.* 122. f. 2. *Corn. canad.* 13. t. 14. *L. mat. med.* 84.

*Monarda mollis. Linn. Amoen. acad.* 3. p. 399.

LOC. Canada. *Perennis, cicur.*

QVAL. spirans, amara.

VIS.



VIS: resolvens, nervina; tonica.

VSVS: Febres intermittentes.

13. MONARDA *didyma* floribus capitatis subdynamis, caule acutangulo. *Linn. Sp. pl.* 32. *Mill. ic.* 122. f. 1. *Cold. noveb.* 7.—*Oswego the.*

LOC. Nova Anglia, Noveboracum, Pennsylvania. *Perennis.*

QVAL. Folia contrita spirant odorem gratum, reficientem.

VSVS: Febres intermittentes Infusum foliorum.

14. SALVIA *officinalis*, foliis lanceolato - ovatis integris crenulatis, floribus spicatis, calycibus acutis. *Linn. Sp. pl.* 34. *Mat. med.* 86.—*Sage.*

Salvia major, et minor aurita et non aurita. *Baub. pin.* 237.

LOC. Colitur in hortis. *Perennis, cicur.*

PHARM. *Salviae* Herba, ▽, ∟, °°, Fl. Sem.

QVAL. spirans, amaricans.

VIS. tonica, nervina, stomachica, uterina.

VSVS. Languor post febres, Galactorrhoea post ab lactationem, Aphthae, Relaxatio Gingivarum, Cibi.

15. COLLINSONIA *canadensis*. *Linn. Sp. pl.* 39. *Amoen. acad.* 4. p. 514. *Mat. med.* 89. *Cold. noveb.* 8. *Kalm. it.* 2. p. 317.—*Horseweed.*

Collinsonia floribus pallide luteis: foliis ovato - oblongis acute serratis. *Gr. virg. ed.* n. p. 6.

LOC. Canada, — Virginia; nemorosa. *Perennis.*

PHIRM. *Collinsoniae* Radix; Flores.

A 4

QVAL.

QVAL. Rad. nidorosa: florum odor gratissimus, vehemens.

VIS:

VSVS: Colica lochialis; Morsura serpentum; Vulnera; Febres (Dumb fever). In doloribus rheumaticis, artus foliis fricandi. Vulnera Equorum (Gall'd Backs.)



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BULLETIN No. 6. 1903. REPRODUCTION SERIES. No. 3

BULLETIN  
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MATERIA MEDICA

J. U. & C. G. LLOYD  
CINCINNATI, OHIO

REPRODUCTION SERIES. No. 3

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MDCCLXXXVII



THE ARMY MEDICAL DEPARTMENT

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## JOHANN DAVID SCHÖPF.

By EDWARD KREMERS, for this Lloyd Library Bulletin.

The author of the "Materia Medica," reproduced in this number of the "Bulletin of the Lloyd Library," was born March 8, 1752, in Wunsiedel, a small town in Bavaria, but then belonging to the independent margraviate Baireuth, the same village which eleven years later became the birthplace of one of Germany's great men of letters, Jean Paul Richter. His early education he received in Wunsiedel and in the gymnasium at Hof. At the age of eighteen he matriculated in the University at Erlangen, which had been founded by the Margrave Carl Friedrich Wilhelm of Ansbach in 1743. In addition to medical studies he pursued the natural sciences, more particularly botany, zoology, and mineralogy. Johann Christian Daniel Schreber, known as the second Linneus, who was Professor of Medicine and Director of the Botanical Garden, was his teacher. After the completion of the triennium he was given the doctor's degree, in 1773, the title of his dissertation being: "De medicamentorum mutatione in corpore humano praecipue a fluidis."

He was not content, however, to settle down to the practice of medicine, but continued his studies at the University at Berlin. Among other studies, he attended a course of lectures on forestry. In order to supplement his university studies, he undertook, in 1774, a lengthy tour through the "Erzgebirge," Bohemia, to Prague, Vienna, Idria, Trieste, Venice, and Padua. At all times and places he endeavored to increase his knowledge of medicine and the natural sciences, and to make the acquaintance of scientific men. The return voyage was made through Switzerland. At the age of twenty-five he settled down at Ansbach, but his heart's desire was to see still more of the world, and we find him planning a trip to India, when an event occurred that caused him to change his plans, and, fortunately for our early American materia medica, directed his steps to the new world.

The Declaration of Independence struck no responsive cord in the hearts of some of the rulers of the petty principalities of that geographic conception then known as Germany. Some of these, "fathers" of their countries sold their subjects to England to be sent to this country for the purpose of subjecting the rebellious colonists. On this side of the Atlantic they are commonly known as the Hessians. Of the 30,000 mercenaries thus sold, Christian Friedrich Carl Alexander, Margrave of Ansbach, who was sorely in debt, contracted to supply 1,285 men. This was early in 1777, at the time Schöpf was planning his trip to India.

These soulless transactions were not only denounced by the people of Germany, but were made a stench in the nostrils of the guilty petty princess by the

greatest ruler in Germany during the eighteenth century, Frederick the Great, of Prussia. Later this same monarch was the first to recognize the new government of the thirteen colonies. It is a moment of satisfaction therefore, to the German pharmaceutical historian,\* to be able to offset, in part at least, this mercenary transaction, by the fact that it brought to the shores of the new world so well prepared a natural scientist as Schöpf, to whose writings we are indebted, as possibly to no others, for a scientific knowledge of our flora and the early uses of our medicinal and economic plants.

The contract of his Margrave with the English ambassador caused Schöpf to change his plans. Instead of going to India he applied for the position of field surgeon with the Ansbach troops. The contract had been signed February 1, 1777. The troops were hurried down the Rhine, were shipped from Dortrecht to Portsmouth, England, and thence to America, arriving at Staten Island June 4th.

For six long years Schöpf attended to his duties as army surgeon. As he himself relates, he had seen, in addition to a small portion of Staten Island, only Rhode Island, Connecticut, and Philadelphia. Though by no means idle, even as naturalist, his curiosity as traveler and student of nature was by no means satisfied. So, when the war ended in 1783, he obtained permission to remain for the purpose of travel and study.

In the company of an Englishman, named Hairs, he began his travels July 22, 1783. From New York they crossed Jersey to Philadelphia, thence they went via Bethlehem into the Alleghanies, to Pittsburg, the country on the Ohio River, and to Kentucky. In October, when his companion left him, he returned via Sheppardstown, Baltimore, and Annapolis to Philadelphia.

During the next month he started on his southern tour through Virginia, North and South Carolina to Charleston. Here he remained two months and then went to eastern Florida. After a stay of several weeks at St. Augustine he sailed to the Bahama Islands. He visited several of these islands, making Nassau, on the island of Providence, his principal stopping place. He left for Europe, June 4, 1784, on the small vessel Hero, laden with mahogany, brasiletto, guaiac wood, pineapples, and live turtles. After a thirty days' trip, not without danger, the little craft arrived in English waters, and several days later sailed up the Thames. Schöpf continued his home journey leisurely through southern England and France, arriving in Baireuth in October, 1784, after an absence of almost eight years.

In the following year he was appointed court and military physician. When, in 1791, Ansbach-Baireuth was ceded to Prussia, he continued to hold offices under the new government. Among the several positions which he filled was that of first Inspector of the "Hofapotheke," at Ansbach. He died before he had reached the age of fifty, September 10, 1800, after a protracted throat trouble. Though early lost to science, he was himself spared the experience of

\* Hermann Peters: Johann David Schöpf. Ein deutscher Naturforscher des vorigen Jahrhunderts in Nordamerika.—*Pharm. Rundschau*, XIII, p. 151.

living through the darkest days of Prussia, when Germany was overrun by French troops, and when Napoleon played havoc with the petty princes and potentates.

After his return from America, between the years 1785 and 1800, Schöpf made two trips, one to Italy, the other to Holland, but his leisure hours were devoted primarily to literary scientific activities. The number of prints left by him are considerable. While yet in America he had sent essays to his scientific friends, which were published in several German periodicals. As soon as he had settled down quietly in Baireuth, he began to work over his studies and observations. It is but natural that, as a medical man, he should first take up that phase of his work which most appealed to him as physician. The result was a list of North American medicaments published in the Latin language under the title: "Materia medica americana potissimum regni vegetabilis. Erlangae; sumtibus Joh. Jac. Palmii, 1787," which is reproduced in this number of the "Bulletin."

The concise form of the "Materia Medica Americana" prevented Schöpf from making extended comment on the drugs yielded by the plants enumerated. Such details are to be found in his book on travel, which was published a year later under the title: "Reise durch einige der mittleren und südlichen vereinigten nordamerikanischen Staaten nach Ost Florida und den Bahama Inseln, unternommen in den Jahren 1783 und 1784. Erlangen, 1788." This work, which is unquestionably the most interesting of his literary productions, was published in two volumes, and comprises 1,200 pages.

A brief sketch of the life and work of Schöpf is not the place for the analysis of this work, interesting though it might prove to the historical student of American materia medica.\* Suffice it here to call attention to the fact that Schöpf's view of nature was not a narrow one, and that his scientific studies are everywhere permeated with an interest in man, the ruler of the natural world. As a result, his work has become a source of information on all matters pertaining to the history of civilization of the original thirteen states of the Union.

Schöpf also published other books, among them one on the mineralogy and geology of the new world so far as visited by him, and another on turtles. The stimulus for such an undertaking he probably received on his homeward voyage on the "Hero," partly laden with live turtles from Bahama for the London market.

Whatever opinion Europeans may hold concerning the rank or importance of Schöpf as a natural scientist, this much is unquestionably true, that as far as our knowledge of the natural sciences, of medicine and pharmacy in America during the close of the eighteenth century is concerned, his work is one of the prime sources of information for the historical student of to-day.

Professor J. U. Lloyd has honored the writer with the request to prepare a brief sketch of the life and work of Schöpf as a preface to the "Bulletin of the

\*An account of Schöpf's two volumes on travels, from the pen of Dr. Fr. Hoffmann, will be found in Vol. XVI, p. 298, of the *Pharmaceutical Review*.

Lloyd Library" in which his "Materia Medica Americana" is to be reproduced for the benefit of students of early American pharmacy and medicine. The writer has gladly undertaken this honorable task and desires to express his indebtedness to a more detailed article by Dr. Hermann Peters published in Vol. XIII of the *Pharmaceutische Rundschau*; also to a manuscript prepared by Prof. Lloyd a year previous to the publication of Dr. Peters's article. This manuscript was prepared by Prof. Lloyd at the request of Dr. Fr. Hoffmann, editor of the *Pharmaceutische Rundschau*, and led to the preparation of the more extended account from German sources by Dr. Peters. Other references to the work and travels of Schöpf will be found in an article by Prof. J. M. Maisch on "G. H. E. Mühlenberg als Botaniker" also published in the *Pharm. Rundschau*, Vol. IV, p. 123, and in an article by Dr. Fr. Hoffmann entitled "Fragmentary notes from the reports of two early naturalists in North America" in the *Pharm. Review*, Vol. XVI, pp. 260 and 296.





## HISTORY OF THIS VOLUME.

The writings of the early students of American Materia Medica, such as Barton, Cutler, and Rafinesque, refer constantly to the "Materia Medica Americana" of David Schöpf.

This book was not, however, to be found in America, and finally Dr. Charles Rice borrowed for us the copy in the library of Erlangen, Germany. This book was pen copied, the copy being retained. Afterward, Dr. Rice found a copy in Italy, which he purchased and presented our library. This is the original of the *fac-simile* herein presented. We consider Schöpf's "Materia Medica Americana" to be the rarest of American works bearing on the subject of our medicinal plants.

THE LLOYD LIBRARY.

Handwritten notes in the right margin, including the word "Herbarium" and other illegible scribbles.

THE  
ST. PAUL MEDICAL JOURNAL.

5 OCTOBER, 1903.

ORIGINAL ARTICLES.

MATERIA MEDICA, PHARMACY AND THERAPEUTICS  
OF THE CREE INDIANS OF THE HUDSON  
BAY TERRITORY.\*

By R. STRATH, M. D.  
FERGUS FALLS, MINN.

Before proceeding to the subject proper I think it may not be out of place to outline briefly how the knowledge of these peculiar remedies came into my possession.

In the summer of 1892 reports of a smallpox epidemic had been received by the Dominion Government from the Indian Agencies located in the Lake Winnipeg region and especially in the District of Keewatin which is north of the Province of Manitoba and extends as far north as man has ever reached. The governor of this district, Sir John Schultz, was instructed to at once take the necessary steps to have all the Indians north of Winnipeg vaccinated and the progress of the epidemic checked as soon as possible. A mutual friend mentioned my name to the Governor and I was commissioned to proceed without delay as far north as there were people and vaccinate all, white or red, that I came in contact with. This was in August, 1892. I immediately set out, traveling by steamer up Lake Winnipeg to Berens river, the first reservation demanding my services, where I put in three days and then proceeded by sail boat to Norway House, once famous as the central seat of the Hudson Bay Company's power in the northwest. This point was made the base of operations in more senses than one and I was kept busy till late in the fall visiting a country with a radius of some 300 miles.

By the last steamer of that year I received instructions from the Indian department of the Canadian Government that I was

\*Read before the Park Region District and County Medical Society at Alexandria July 8, 1903.

to remain for the balance of the year in charge of the reservations so as to be on the spot in case colder weather might bring a renewed outbreak. I was the first resident physician among these people and doubtless you can all appreciate the prejudice and incredulity with which my efforts were at first received.

On receiving this appointment I immediately set myself to the task of acquiring the language and to that fact I may lay all credit of having obtained the information which I believe no other white man has ever received; for through the language, I found a way to their hearts, won their confidence, and finally was admitted as a member of the "Mitawin" or secret society which is the body that teaches their medicine, religion and secret methods of communication.

My stay of one year lengthened into five, and each year found me acquiring more knowledge of the language which is one of the most perfect from a philological standpoint that I have ever studied and also winning my way into their confidences for after all the Indian is very human and readily responds to kindness when he sees it is sincere; I came to like the work very much though it was oftentimes of a nature that to our confreres in city clinics would seem repulsive.

Through the kindness of one of the oldest medicine men of the Crees I was given the *entrée* to their "Mitawin" and thus have obtained a little insight into their methods of diagnosis and therapeutics; I say a little, because I did not stay long enough among them to graduate in their school and there are many things yet of which I can only surmise the cause though I have seen the effects often enough. But to my subject.

In dealing with the materia medica I have classified the drugs alphabetically according to our pharmacopeia and will take up of each—

1. The part used or the official preparation, so to speak.
2. Its physiological action.
3. Its therapeutic value from their standpoint.

I. *Aspidium Marginalis* (common marginal shield fern)  
Maanchowutupe.

Part used, the rhizome, thoroughly dried and powdered or infused whole: plant must be gathered in the month of June to be efficacious and is more so if at least twelve months old.

Physiological action, teniacidal and vermifugal by increasing peristaltic action of the bowels.

Therapeutics: The drug is usually administered in the form of an infusion, the roots in bulk are placed in a kettle, about a handful being used to two quarts of water, boiling water is poured over them and allowed to boil 15 or 20 minutes, when the infusion is cold enough to drink, it is administered *ad lib.* until the desired effect is obtained. From missionaries they have obtained senna and usually add some of it to the infusion, so that it is rare that there is any failure in its action. Their diagnosis of worms is very correct; they place great importance on the variable appetite and this in an Indian is usually a sign that something is wrong. I have not had the opportunity of ever seeing tape worm passed under this agency, but I have been told of several and do not question the facts at all, as the average infusion is quite strong enough and would, I think, give a dose in our reckoning of from 80 to 150 grains. They also sometimes combine a powdered root which greatly resembles baptisia, this I am told has to be imported from other tribes in exchange for some of the indigenous medicinal plants with which this district is prolific.

Baptisia (wild indigo), imported, Chepatakawutupe.

Part used, rhizome powdered or in bulk.

Physiological action: emetic, cathartic, also used locally in ulcerated surfaces and syphilitic sores, but not as an antiseptic as far as I can ascertain.

Therapeutics: administered in doses of from 5 to 20 grains, causing violent catharsis and emesis. They claim it has also an ebolic effect but I have never observed this. They administer the drug in many cases of febrile nature, especially in typhoid, which they term summer fever, working on the theory that the bowels contain irritating matter which if removed will effect a cure of the febrile conditions. The explanation of the use of the powdered root in ulcerated cases is that it dries up and cures the sores and makes them flake away; a correct enough theory.

Betula Alba (Birch) Wuskwi.

Lenta.

Part used, buds and bark freshly pulled and peeled. The buds must be pulled about three weeks after first appearance.

Physiological action: birch is corrective, stimulant and antiseptic. The bark is used for nearly everything.

Therapeutics: the buds are used in gonorrhoea with marked effect as will be mentioned later on. The bark is infused and

mixed with hemlock and other pine barks in the treatment of consumption and other lung troubles.

Calamus (Sweet Flag) Weckas.

Part used: rhizome, thoroughly dried and chewed in bulk, also pulverized. Large bundles of this plant can be seen hanging in every tepee or wigwam, tent or house wherever Indians are found, and seems to be the family medicine of the people, its virtues being known to all.

Physiological action: stimulant, tonic and carminative. Claimed to be specific in several diseases, especially in pharyngitis and dyspepsia.

Therapeutics: in pharyngitis the patient is directed to slowly chew a portion of the root, and allow the saliva and juicy pulp to be swallowed; a poultice composed of the root slightly pulverized is applied externally all around the throat and neck and usually cures or enables the patient to cure himself by his faith in its efficacy.

A piece of the root is carried by every tripper on his hunts and trips for the Hudson Bay Company and when feeling exhausted by hunger or fatigue, a small piece slowly chewed will restore the flagging energies in a most wonderful manner. An infusion or tea is also used by the women when required in dysmenorrhea (though they have special drugs for this when severe) in a very similar manner as tansy is used by white women. This drug is a standby of the Indian practitioner and is prescribed as a placebo in many instances, our Indian brethren fully understanding this procedure.

Carum (Caraway) Iskotawutupe.

Part used: rhizome and the seeds.

Physiological action: corrective and adjuvant, also singly to relieve colic, etc. Infusion form is the vehicle of administration and is very weak when thus employed; they seem to be ignorant of the volatile oil of these plants.

Caulophyllum (Blue Cohosh) Iskwawutupe.

Part used: rhizome, roots proper and also flowers.

Physiological action: diaphoretic, antispasmodic, emmenagogic and abortive.

Therapeutics: cohosh grows in great profusion on the lake shores and is widely used by the Indian gynecologist. The Indian name means "woman's root" or "squaw root." It is to the Indian obstetrician what ergot and cimicifuga are to us. The

rhizome powdered is indicated in all uterine troubles, especially dysmenorrhea, metrorrhagia and post partum hemorrhage, in infusion and also dry on the tongue, about 30 grains administered in the latter way as a dose. The root proper is used in amenorrhea chiefly in infusion *ad. lib.* The flowers infused are given as specific for rheumatism and sciatica. The cohosh has another use in combination with other drugs that has surprised me very much, namely, its abortive power, but of this I will speak later on. The intermittent contraction of the uterus caused by the infusion of the rhizome is most pronounced.

Cypripedium (Ladyslipper) Muskisincowow, is known but not much used except in epilepsy and insomnia.

Part used: rhizome of *C. parviflorum* scraped thoroughly and infused whole.

Physiological action: sedative, antispasmodic and depressant.

Therapeutics: indicated in epilepsy and insomnia, but with indifferent success, owing to method of preparation.

Hedeoma (Pennyroyal) Mikwawutupe, known and used as in domestic medicine among ourselves.

Juniperus (Juniper) Nepewewutupe.

Part used, the berries or fruit, also the rhizome and root proper according to the effect desired and also the dried leaves.

Physiological action: the berries are diuretic, leaves used as antiseptic, roots are sudorific and diaphoretic.

Therapeutics: the berries stewed and strained and the liquid administered in half pint doses for simple colds in bladder as a diuretic, the leaves dried and powdered are used with marked effect in psoriasis and eczema, being dusted over the affected surfaces. The rhizome is the chief part employed however, and a very strong fluid extract is made by infusing the scraped root in two quarts and boiling it down to one pint and a dose of about one tablespoonful given twice daily in calculus, cystitis, and Bright's disease. Usually they combine with this mixture another root that I am undecided about, of this I will speak further under the heading of therapeutics.

Mentha Viridis (Spearmint) Wekemakowemina.

Part used: the leaves infused. Physiological action: *nil.*  
Therapeutics: flavoring and adjuvant in colic.

Abies Canadensis (Spruce or Hemlock tree) Ininatik.

Part used: inner bark and gum or balsam.

Therapeutics: phthisis incipiens is greatly benefited by the

inner bark freshly peeled combined with equal parts of birch and poplar inner bark. These ingredients are soaked from sunset to sunrise in cold water and then brought slowly to a boil and boiled down to half the original quantity, and if possible sugar is added and the infusion prescribed *ad. lib.* I have seen excellent results obtained in the treatment of pulmonary consumption and consider the treatment is in reality along similar lines to our own method in prescribing the different balsams and creosote combinations. The inner bark is also used as a dressing for ulcerated surfaces, wounds, and in some cases of eczema. There is usually an oily, resinous scum that rises to the surface during the process of making this infusion. This is always carefully skimmed off and preserved; its use will be referred to later under the heading of therapeutics.

Plantain (Meadow Grass) Muskosia.

Part used: the leaves dried, powdered and dusted over affected parts. Physiological action: antiseptic.

Therapeutics: in burns and scalds the plantain leaf is chewed up and the paste applied over the injured surface with soothing effect and in internal hemorrhage or injury the juice is swallowed. They also claim that it is very beneficial in tooth ache and ear ache.

Podophyllum Peltatum (Mandrake), Sapoosikun.

Part used: the rhizome and roots.

Physiological action: cathartic, cholagogue.

Therapeutics: the powdered root is administered in large doses of from 10 to 20 grains for all liver troubles; I believe, however, they depend more upon its laxative properties rather than its cholagogue in this connection. What jalap was to the practitioner of 50 years ago so mandrake is to the Indian of today.

Rubus Strigosus (Wild Raspberry) Uskemina.

Part used: the leaves infused in boiling water. Physiological action: astringent, tonic.

Therapeutics: in cholera infantum and dysentery, this infusion is given *ad. lib.* combined with a strong decoction of willow bark with very good effect. In connection with this plant I would like to mention a species of rubi which I believe was unknown until very recent years, that is the rubus arcticus, which has all the medicinal virtues of the rubi class and also more than the usual flavor as a fruit.

Rumex (Dock Weed) Tatupewewutupe.

Part used: the rhizome. Physiological action: laxative.

Therapeutics: in scrofulous enlargement of the glands a poultice applied over the seat of the trouble and an infusion administered at the same time.

Salix Nigra (Willow) Sepastikoos.

Part used: freshly peeled bark of the stem just above the ground. Physiological action: astringent, hemostatic, tonic, diuretic.

Therapeutics: in severe wounds the freshly peeled bark is applied as a surface dressing to arrest bleeding and is applied immediately; the Indian theory being that all flow of blood should at once be arrested. For internal use the bark is dried and powdered and administered in milk in renal and calculus complaints. They are not aware as far as I can learn of the great use of salicylic acid in rheumatism nor do they use any preparation of willow for this complaint. Briefly its uses are local, astringent and hemostatic.

Sarsaparilla (Smilax) Mikwawutupe.

Part used: rhizome and rootlets. Physiological action: diuretic and alterative.

Therapeutics: the Indians do not place much confidence in this drug. It is used by them however in syphilis and genito-urinary troubles. It is always prescribed in combination with baptisia.

Taraxacum (Dandelion) Mewewewineow.

Part used: leaves, stalks and roots.

Physiological action: hepatic, tonic, diuretic and slightly cholagogue.

Therapeutics: dandelion is indicated in torpid liver, acid dyspepsia, and heartburn. After the plant has flowered the stalks are pulled and the milk is carefully pressed into an infusion of the root and administered at intervals of about an hour in copious draughts. The native practitioners claim that it is very efficacious but I cannot say I ever saw results to justify this belief.

Veratrum Viride (Green Hellebore) Mikosowutupe.

Part used: rhizome. Physiological action: febrifugal, depressant and sternutatory.

Therapeutics: in typhoid fever, variola, scarlatina and pertussis, an infusion is administered at very frequent intervals until the heart's action is considerably slowed; at the same time pressure is



exerted on the vaso motor centers and the combination invariably produces a marked decrease in temperature. The strength of the infusion is such, however, that it frequently causes nausea which is considered by the practitioners to be a "*sine qua non*" in the treatment of these diseases. Its use as a sternutatory may surprise some of our white practitioners, but certainly it is efficacious in this mode of employment. I will refer to this later.

The above constitute the principal drugs in the Pharmacopeia; they have, however, some secret preparations which are not made known to the practitioner until he has taken his last year's work, and as I only put in three years I regret to say that I am ignorant of some of the most important combinations that they use.

Pharmacy: the pharmacy of the Indian is not by any means complicated, though they possess a knowledge of chemical incompatibility and rarely use more than two drugs in combination unless some extraordinary result is required. They pin their faith to one specific for each disease, hence the compounding of drugs is not as important a matter as the diagnosis and correct administration of the specific drug for the trouble. They thoroughly understand the making of fluid extracts, infusions and powders. I have known some who evidently in imitation of the white man's pill have used paste made of flour and water and administered powders in the form of a bolus, but in the majority of cases powders are prescribed dry on the tongue or administered in milk.

The official preparations have not changed as far as I can learn from the earliest times. Their pharmacopeia is a strange looking document and consists of anatomical chart, dispensatory and pharmacopeia combined. It is made of white birch bark upon which is drawn a life sized human figure in red ochre; the various organs of the body are indicated in their proper positions and from each organ an arrow is drawn to the margin of the birch bark roll and here is attached a piece of the root or some of the powder done up in the finer birch bark, the exact dose and particular drug that is specific for that particular organ when affected by any trouble is thus clearly set forth.

These rolls are very carefully guarded, but one is presented to each graduate and constitutes his diploma. I am not aware of any white man ever having received one of these, and I was agreeably surprised when I was presented with one of them on

leaving the reservation, though I had not completed my studies in Mitawin.

Instruction in medicine is necessarily didactic, but yet their practice fully carries out their training.

Therapeutics: the Indian practitioner might well lay claim to the title of Eclectic as he uses any and every medicine which he considers conducive to the recovery of his patient; their knowledge of anatomy is not very extensive and major operations in surgery are not known. They have, however, hygienic principles which very closely correspond to those in use among the earliest Israelites; in fact, there is much about this people that points to an eastern origin. They understand what I would term the minor principles of Osteopathic practice and in their treatment of fevers, inhibition at the nerve centre is practiced; for instance, in their treatment of typhoid great stress is placed on vaso motor pressure and I must say that it has very beneficial results.

Thermotherapy is also known and used as no doubt many have seen, the Indian sweating tent being a very common adjunct wherever the people congregate. It is chiefly used for pleurisy, pneumonia and kindred bronchial affections, also in dropsical conditions. The *modus operandi* consists of making a birch bark tent in circular form about six feet in diameter having one central pole; large stones are heated till almost red hot; these are placed in the center of the tent, cold water is then poured over them and the result is an ideal vapor bath. Incidentally the patient gets an occasional scald from the splashing water, but that does not count. Dry heat is also used but not so frequently.

The most common diseases among the Crees in former days seem to have been of a hereditary rather than an acquired nature. Since the advent of the white man and his so-called civilization, many of the white man's diseases have sprung up among them. Under old conditions, the free life of the woods, the pure air and nomadic conditions of life, tubercular diseases were unknown, but since the white man has taught them to build houses and sold them cheap box stoves with the smallest sized stove pipe supplanting the old wigwam with its fire in the center carrying all impure air away through a hole in the roof, they have been enabled to successfully close up every chink, nook, or cranny through which fresh air might enter, and in consequence tuberculosis is now rapidly decimating the Indian race; another powerful factor is the substitution of a diet not suited to their environ-

ment especially in the extreme cold of the winter months; formerly they depended for their food supply on the animals of the country and the fatty, oily food thus obtained was that exactly suited for their needs, but the substitution of flour and other starchy foods has left its mark upon their constitutions. Tuberculosis is known by them as "Mastineaweakooswin," or wasting sickness and being of comparative recent origin they cannot treat it by any means as well as other troubles.

Fevers are classified under one heading and treatment is practically the same in all cases, veratrum viride combined with baptisia also using inhibition of nerve centers. Goitre is treated by a poultice of mandrake and manipulation with varying results. Hemorrhages are controlled as promptly as possible by the application of willow and in severe cases the principle of the tourniquet is applied. Ax cuts are very frequent and in many instances are very severe; bleeding is arrested by the application of willow bark and the edges of the cut drawn together with sutures made of willow root scalded in boiling water, this latter, however, only in extensive cuts. Gun shot wounds are also very common; the latter they cannot handle with anything like the same skill as wounds caused by sharp instruments, thus proving that their knowledge has not kept pace with their civilization. They can extract arrow heads much better than they can bullets.

Scrofula is very apparent and is on the increase, an indication that tubercular trouble will eventually wipe this people out; at present, however, the birth rate is slightly in excess of the death rate.

In gynecological work the Indian practitioner does not have anything like the calls that the white man has; parturition being a very simple matter in the majority of cases and is conducted in the following manner: The patient kneels down in front of another woman who is comfortably seated and during the labor pains places her head in the nurse's lap, strains with all her might with her arms around the nurse's waist; the infant is allowed to drop on a pillow placed between the patient's knees.

Presentations are in most instances correct (Cephalic) and it is very rare indeed that any complication arises though I have seen a few post partum hemorrhages and delayed placentas; they have, however, for the treatment of these a very reliable combination of drugs causing prompt and strong contractions of

the uterus. The complete formula for this mixture I have never been able to obtain, it is certainly the most powerful ecbotic I have ever seen. It contains eight ingredients, two of which are colosh and the scum taken off the hemlock bark infusion. It is also used for abortive purposes and in this connection I would say, strange as it may sound, that I have seen the fetus more than once expelled at twelve weeks without any apparent injury to the mother, but it also apparently has the power of causing partial paralysis of the generative organs. Three cases came under my observation and in none of them did conception occur during my residence at Norway House; and in fact menstruation came only at very irregular intervals.

Genito-urinary troubles are handled with much more skill than one would suppose. Gonorrhoea is treated very successfully by this people and they have need to be expert in it for there is a great deal of it among them; treatment consists of the fresh buds of the hemlock and birch steeped in cold water and then brought to a boil and given in strong infusion form. Stricture is rare with this treatment, but when it does occur it is handled by giving large doses of baptisia and other purging drugs. Syphilis is treated as a constitutional disease; accordingly they give blood purifiers and strong purgative mixtures. Chancres are treated by dusting over them the powdered rhizome of baptisia and using a wash composed of willow bark infusion, warm and as a healing salve, some of the spruce gum of the country is applied. On the whole their treatment is a failure.

Hernia is simply yet scientifically treated, though to the onlooker it might seem a trifle harsh. It is as follows: as soon as possible after the rupture takes place the patient is placed on his back with a support under the last dorsal and the first lumbar vertebra thus stiffening the abdominal muscles; a small portion of powdered hellebore root is then blown up the patient's nose and during the action of sneezing the "doctor" forces the hernia into its place. This may seem crude, but in simple and recent cases it certainly is effectual. I am not aware as to what their treatment would be in a strangulated case.

In actual practice the Indian medicine man can give us a few pointers; for instance, he positively refuses to attend a patient until the fees are paid, hence there are no bad debts on the books and a collection agency making a specialty of doctors' accounts up there would starve to death; fees are not confined to specie,

but generally take the form of something metallic, this depends largely, however, on the nature of the disease to be treated. As a rule steel traps, guns, rifles, axes, fishing nets, and ploughs are the most eagerly sought for and I have known cases where the practitioner has required a good sized boat to take his fees home with him. On being called to attend a patient he takes his emergency case with him and after the preliminary negotiations have been arranged proceeds to his diagnosis. Immediately after the diagnosis has been made the next thing to do is to find out if the patient is going to live or die, and this is decided in a very strange manner. Taking from his medicine bag a small powder, which resembles lycopodium more than anything else I know of, and asking for a vessel containing cold water, the doctor places about a thimbleful of the powder in the very center of the water; it remains inert for a few seconds, and is entirely insoluble, then suddenly radiates like the spokes of a wheel, then slowly begins to turn around either in the same direction as the sun or against it; if in the former direction the patient will recover; if in the latter, he certainly stands no show. I do not know what this powder consists of, nor can I explain its action, but I have seen it and know that it does this and conclude that it is due to molecular and centrifugal force. You can readily see what an effect this knowledge would have on the patient and I might say here that suggestive therapeutics is not by any means an unknown quantity among these medicine men.

The medicine man must not be confounded with the conjurer; they belong to two separate and distinct schools. The conjurer does not use medicine but charms away the evil spirits that are supposed to haunt the patient and is the fakir of the Indian profession, while the medicine man honestly endeavors to bring his professional ability to cope with the disease, the latter learn their business thoroughly, beginning at the age of about 16 and while his brethren are learning woodcraft and hunting he is being instructed in the secret science of the healing art.

Fearing to trespass too long on your valuable time, I cannot go into this subject fully and will say in conclusion that many of the simple herbs and roots used by the Indian practitioners are well worthy of fuller investigation.