

## **Ameisen - Ants**



**Formica**

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## Die Ameisen / The Ants



# Die Ameisen / The Ants

## Die Familie der Ameisen - Alfred Brehm

„Die Familie der **Ameisen** (Formicina) gehört gleichfalls zu den geselligen Aderflüglern, deren Gesellschaften sich zu gewissen Zeiten aus dreierlei Ständen zusammensetzen, den geflügelten Weibchen und Männchen und den stets **ungeflügelten** Arbeitern oder verkümmerten Weibchen. Dieselben treten selten bei den europäischen, häufiger bei den ausländischen Arten in zwei bis drei Formen auf, zeichnen sich in der außergewöhnlichen Form besonders großköpfig und sind wohl auch als **Soldaten** von der gewöhnlichen Form unterschieden worden. Die Ameisenstaaten sind, wie die der Honigbiene, mehrjährig.

Der **Kopf** der Ameise ist verhältnismäßig groß, bisweilen sehr groß bei den Arbeitern, klein bei den Männchen. An ihm fallen die kräftigen Kinnbacken am meisten in die Augen, welche nur in seltenen Fällen walzig, meist breit gedrückt und an der Kaufläche schneidig oder gezähnt erscheinen. Unter ihnen verborgen liegen die Unterkiefer mit nur einem Lappen und ein- bis sechsgliedrigen, walzigen Tastern. Die Lippentaster bestehen aus zwei bis vier gleichfalls walzigen Gliedern und die Zunge gelangt nicht zu der Entwicklung wie bei den übrigen geselligen Immen. Von Wichtigkeit für die Einteilung sind die sogenannten **Stirnleisten**, die nach außen freien, nach innen mit der Kopffläche verwachsenen leistenartigen Vorsprünge, welche über den Fühlern beginnen und nach hinten und oben gleich-, auseinanderlaufend und gradlinig oder S-förmig gebogen sind. Die Fühler gehören der gebrochenen Form an, wenn auch bisweilen bei den Männchen infolge des kurzen Schaftes weniger deutlich, und ihre neun- bis zwölfgliedrige Geißel ist fadenförmig oder nach der Spitze hin mehr oder weniger keulenförmig angeschwollen. Die drei Punktaugen auf dem Scheitel fehlen der Arbeitern häufig.

Der **Mittelleib** bietet bei den geflügelten Ameisen keine besonderen Eigentümlichkeiten, dagegen erscheint er ungemein schmal, nach oben stumpfkantig hervortretend bei denen, wo er nie Flügel zu tragen bekommt, und er ist es hauptsächlich, welcher dem ganzen Körper den Ameisencharakter verleiht, und einen Arbeiter von den anderen Geschlechtern unterscheiden lehrt, selbst wenn diese ihre Flügel verloren haben. Letztere sitzen ziemlich lose, und fallen aus, sobald die Paarung erfolgt ist. Ihr Geäder ist dürftig: eine vorn nicht immer geschlossene Randzelle, eine, in seltenen Fällen zwei, geschlossene Unterrandzellen eine bis zwei Mittelzellen nebst den beiden Schulterzellen bilden den ganzen Reichtum. Die Beine sind schlank, Hüften und Schenkel nur durch einfachen Schenkelring verbunden, wie bei allen Raub- und Blumenwespen, und die Füße fünfzehig. Der dem etwas konkaven ersten Fußgliede der Vorderbeine entgegengestellte Schienensporn ist innerseits borstig bewimpert und bildet samt dem an gleicher Stelle bewimperten ersten Fußgliede das Werkzeug, mit welchem die Ameise sich reinigt, namentlich Fühler, Taster und sonstige Mundteile abbürstet.

Der **Hinterleib** besteht aus sechs, beim Männchen aus sieben Ringen und ist immer in einer Weise gestielt, dass man bei seiner Formbestimmung den Stiel für sich und den Hinterleib für sich, jenen also für ein besonderes Mittelgebilde zu betrachten pflegt, welches dem Hinterleibe entschieden eine große Beweglichkeit verleiht. Das Stielchen ist entweder ein- oder zweigliedrig und bildet im ersten Falle einen Knoten zwischen dem Hinterrücken und Hinterleibe, oder einen an den Ecken gerundeten Würfel (*Typhlopone*), in der Regel aber sitzt auf seiner Oberseite eine von vorn nach hinten gerichtete viereckige, gerundete, oben mehr oder weniger aufgerichtete Querleiste, die sogenannte **Schuppe**, in selteneren Fällen ist seine ganze Erstreckung platt gedrückt (*Tapinoma*). Bei einem zweigliedrigen Stielchen stellt das zweite Glied einen kugeligen oder nach den Seiten hin verbreiterten, das erste einen gestielten Knoten dar. Der Hinterleib, nur mit einer Ausnahme (*Crematogaster*) an seinem Unterrande dem Stielchen angewachsen, hat einen kugeligen, ovalen, länglich elliptischen oder

herzförmigen Umriss und schnürt sich nur in seltenen Fällen zwischen zwei Ringen ein. Bei den Männchen zeigt die ganze Bauchschuppe (Afterklappe, Ventralklappe) besondere Verschiedenheiten und bedeckt die Geschlechtswerkzeuge, wenn sie klein sind, oder lässt die oft sehr großen teilweise frei. Durch diese Teile, durch den kleinen Kopf, längere und dünnere Beine, schmalere Kinnbacken und infolge der um eines vermehrten Gliederzahl an Hinterleib und Fühlergeißel unterscheiden sich die Männchen leicht von ihren Weibchen, verlieren auch nach dem Schwärmen die Flügel nie, wie diese. Die weiblichen und arbeitenden Ameisen, bissige Geschöpfe, lassen eine kräftige, nach ihnen benannte Säure in die Wunde fließen und zwar aus der zu diesem Zwecke nach vorn gebogenen Hinterleibsspitze, andere führen, wie die Stechimmen, einen Stachel und wehren sich mit diesem. In beiden Fällen erzeugt die der Wunde mitgeteilte Ameisensäure Brennen und schwache Entzündung.

Die wurmförmigen, fußlosen **Larven** bestehen aus zwölf nicht immer unterscheidbaren Ringen, einem nach unten gebogenen, hornigen Kopfe und sind von weißlicher Farbe. An letzterem unterscheidet man stummelhafte Kinnbacken, fleischige, zu einem Stück vereinigte, vorn ausgerandete Unterkiefer, jederseits mit zwei kurzen Borstenhaaren bewehrt, eine fleischige, zurückziehbare Unterlippe, aber keine Augen. Mit wenigen Abweichungen ist der Körper nach vorn verdünnt, hinten dicker, stumpf gerundet und mit spaltförmiger Afteröffnung versehen. Diese durchaus unselbständigen Larven können sich nicht von der Stelle bewegen und müssen gefüttert werden. Sie sind in ihrer ersten Jugend von allen Ständen übereinstimmend und unterscheiden sich nur später durch unbedeutende Formveränderungen, auffälliger aber durch die Größenverhältnisse. Mag der Unterschied zwischen Männchen und Weibchen im Ei verborgen liegen, der zwischen Weibchen und Arbeitern in ihren verschiedenen Formen bildet sich wahrscheinlich erst im Larvenstande aus, durch welche Verhältnisse aber, wissen wir nicht; denn daß es durch veränderte Kost sei, wie bei der Honigbiene, läßt sich darum nicht annehmen, weil diese immer nur in ausgebrochenen Flüssigkeitstropfen der fütternden Arbeiter besteht: die reife Larve fertigt bei den einen ein längliches, schmutzig weißes oder bräunliches Gespinst, in welchem sie zu einer gemeiselten Puppe wird. Diese eingehüllten Puppen bilden unter dem falschen Namen der »Ameiseneier« als beliebtes Futter für gewisse Stubenvögel einen Handelsartikel. Andere spinnen niemals und wieder andere halten insofern die Mitte zwischen beiden, als sich nackte und eingehüllte Puppen beisammen im Neste finden. In einem solchen Falle ist die Spinnfähigkeit der Larven erwiesen, und anzunehmen, daß diejenigen, welche nicht spinnen, durch die Fütterung oder durch sonstige Verhältnisse nicht hinreichenden Spinnstoff in ihren Drüsen zur Entwicklung bringen konnten. Die mit zweiknotigem Hinterleibsstiele ausgerüsteten Ameisen spinnen als Larven der Regel nach nicht.

Wie alle Aderflügler, so ernähren sich auch die Ameisen nur von süßen Flüssigkeiten, welche ihnen die verschiedensten Gegenstände, Obst, Pflanzensäfte aller Art, Fleisch, saftige Tierleichen, in erster Linie aber die Blatt- und Schildläuse in ihren Exkrementen und erstere außerdem aus den sogenannten Honigröhren liefern. Daher finden sich Ameisen auch immer zahlreich da ein, wo die Blattläuse hausen, und gehen ihnen nach, wo sie sich auf Pflanzen einstellen, nicht diesen letzteren, denen sie nur insofern nachteilig werden können, als sie durch ihre Erdwühlereien deren Wurzelwerk stören und bloßlegen. Ebenso füttern sie nur mit wasserhellen Tropfen, welche sie aus dem Munde treten lassen, die Larven, die Männchen und Weibchen ihres Nestes, oder einen anderen Arbeiter ihrer Gesellschaft, der sie anbettelt. Vorräte tragen sie daher **nicht** ein, wie die Honigbienen und andere gesellige Blumenwespen. Außer der bezeichneten Nahrung bedürfen sie einen gewissen Feuchtigkeitsgrad zu ihrem Gedeihen, und dieser bestimmt auch den Ort ihrer Nestanlage.

Die meisten Ameisennester finden sich in der Erde. *Forel* hat in jüngster Zeit in den »Neuen Denkschriften der allgemeinen Schweizerischen Gesellschaft für die gesamten Naturwissenschaften« (Zürich 1874) seine schätzbaren Beobachtungen über die Schweizer Ameisen niedergelegt und auch dem Nestbau einen umfangreichen Abschnitt gewidmet. Er unterscheidet:

1) **Erdnester**, welche entweder einfach gegraben oder wenigstens teilweise gemauert und mit einem Erdhügel versehen, oder unter einem schützenden Steine angelegt sind. 2) **Holzner**, welche im noch zusammenhängenden Holze in ähnlichem, zum Teil regelmäßigerem Verlaufe in den dauerhafteren Stoff gearbeitet sind, wie jene in die feuchte Erde. Die festeren Jahresringe bleiben meist als Wände stehen und der Verlauf der Holzfaser bestimmt den Verlauf der Gänge und Hohlräume. Es kommen bei diesem Nestbau bisweilen höchst wunderliche Gebilde zu Stande, wie ein Stammstück im Vordergrund rechts von dem Ameisenhaufen unseres Bildes zeigt. Gewisse kleine Arten, deren Gesellschaften wenig zahlreich sind und der Gattung *Leptothorax* angehören, minieren in der dicken Borke alter Bäume wenige flache Kammern, welche unter sich in Verbindung stehen. Da die im Holze nistenden Ameisen gesunde Bäume nie krank machen, wohl aber an den krankenden Stoffwechsel beschleunigen und namentlich die alten Baumstümpfe als die Brutstätten manchen Ungeziefers schneller zur Verwesung bringen, so werden sie von dem Forstmanne als Bundesgenossen angesehen und geschützt. 3) **Eingehüllte Nester** (nids en carton) werden in der Schweiz nur von *Lasius fuliginosus* gebaut, einer Art, deren Drüsen vorherrschend entwickelt sind und ein Bindemittel liefern, mit welchem vorherrschend im Holze durch Aufmauern von zusammengekneteten Holzspänchen die inneren Räume aufgebaut werden. Hierher mögen die Nester gehören, welche die sogenannten *Comehens* auf Portorico oder die nachher zu erwähnenden »stallfütternden Ameisen« anlegen. Erstere bauen gewöhnlich zwischen Baumästen riesengroße Nester wie Bienenkörbe, und überwölben überall, an den Ästen, dem Stamme, den Blättern, an Steinen und an dem Erdboden die zu denselben führenden Straßen mit einer gegen Licht und Regen schützenden Bedeckung, welche eine innere Weite vom Durchmesser einer Federspule hat. Dieselben *Comehens* dringen aber auch in die Häuser ein, durchbohren hölzerne Gerätschaften und weichen bei ihren Märschen nur dann von der geraden Linie ab, wenn undurchdringliche Hindernisse in den Weg treten. Als vierte Form bezeichnet *Forel* die **Nester von zusammengesetzter Bauart**, zu denen die allbekanntesten aus Pflanzenstoffen, besonders kleinen Holzstückchen zusammengetragenen Haufen unserer *roten Waldameise*, die wir später noch näher kennen lernen werden, einen Beleg liefern. Hierher gehören auch die Bauten in alten Baumstümpfen, wo das zersetzte Holz ebenso wie bei den Erdbauten die Erde benutzt wird, um haltbare Gänge und Kammern in dem Mulme herzustellen. 5) Zu den **abweichenden Nestern** werden diejenigen gerechnet, welche sich unter den vorigen nicht unterbringen lassen, wie diejenigen in Mauerritzen, Felsspalten, menschlichen Wohnungen usw. Diese Andeutungen mögen genügen, um die große Mannigfaltigkeit im Nestbau zu erkennen; für die bestimmte Ameisenart ist dieselbe nicht charakteristisch; denn es gibt kaum andere Kerfe, welche sich bei Anlage ihrer ausgedehnten Wohnungen so in die Verhältnisse zu schicken wissen, wie die Ameisen. Wenn auch bestimmte Arten fast ausschließlich unter Steinen in die Erde bauen, gewisse (*Camponotus*) mit Vorliebe im Holze, so richten sich doch die bei weitem meisten heimischen wenigstens nach den dargebotenen Verhältnissen und gehen darin so weit, daß sie verlassene Nester beziehen, daß die Holzbewohner sich in holzigen Gallen verschiedener Gallwespen häuslich einrichten, sobald jene ihre Behausungen verlassen haben.

Je kleiner die Gesellschaft, desto einfacher das Nest; je größer, desto mehr Gänge und Hohlräume dehnen sich in der Ebene und in Stockwerken über einander aus und bilden ineinander verlaufende Irrgänge, welche durch Wände, Pfeiler, Stützen der stehen gebliebenen oder hier und da aufgebauten Stoffe (Erde, Holz) voneinander getrennt und gestützt werden. Bestimmte Wege führen nach außen, oft in weitere Entfernungen, und stellen die Verbindung des Nestes mit den Weideplätzen der Bewohner her. Nicht selten findet man größere Bodenflächen mit zahlreichen Nestern einer und derselben Art besetzt, welche alle unter einander in Verbindung stehen, während umgekehrt unter einem Steine zwei bis drei Arten von Ameisen in so naher Nachbarschaft leben, daß sich die Gänge der einen zwischen die der anderen winden und dennoch Scheidewände die einzelnen Baue vollkommen voneinander abschließen.

Das Bauen und Erhalten der Nester nicht nur, bei welchen Arbeiten Kinnbacken und Vorder-schienen die Hauptrolle spielen, sondern auch die häuslichen Geschäfte fallen den **Arbeitern** anheim, und diese sind, wie wir sogleich sehen werden, hinsichtlich der Fürsorge für die Brut wahrlich keine leichten. Bei denjenigen Ameisen, deren Arbeiter in verschiedenen Formen auftreten, scheint bis zu einem gewissen Grade Arbeitsteilung einzutreten, wenigstens hat man beobachtet, daß die großköpfigen, sogenannten **Soldaten**, welche bei den Streifzügen nicht die Verteidiger, sondern mehr die Ordner und Führer bilden, mit ihren größeren Kinnbacken das Fleisch und die sonstige Beute zerschroten und die zarter gebauten Arbeiter dadurch in die Lage versetzen, ihren Kräften entsprechende Stückchen wegschleppen zu können. Überdies können wir oft genug beobachten, daß da, wo für den einzelnen Arbeiter die Kraft nicht ausreicht, ein zweiter und dritter zu Hilfe kommt und mit vereinten Kräften oft unmöglich scheinendes erreicht wird. In der Vereinigung fühlt sich die Ameise überhaupt nur stark und zeigt nur dann ihren vollen Mut und ihre Kampfeslust, wenn sie auf Beihilfe von ihresgleichen rechnen kann; als einzelne oder fern vom Neste weicht sie jedem Zusammenstoße gern aus.

Die Brutpflege erstreckt sich hier auf Eier, Larven und Puppen. Erstere, frisch gelegt, sind länglich, weiß oder lichtgelb, schwellen aber vor dem Ausschlüpfen an, biegen sich an dem einen Ende etwas und werden glasig. Nachdem sie vom Weibchen in einer Kammer auf ein Häufchen gelegt worden sind, werden sie von den Arbeitern wieder aufgenommen, fleißig beleckt, wie es scheint, hierdurch mit einer nährenden Feuchtigkeit versehen, in ein oberes Stockwerk des Hauses aufgehäuft, wenn es warm wird, oder tiefer geschafft, wenn die Witterung rauh und unfreundlich ist. Dasselbe wiederholt sich mit den Larven, die außerdem mit den ausgebrochenen Tropfen gefüttert, beleckt und von dem anhaftenden Schmutze gereinigt werden. Auch die Puppen werden den ihrem Gedeihen entsprechenden Witterungsverhältnissen nach umgebettet, hier- und dorthin getragen, und wer hätte nicht schon gesehen, wie beim Aufheben eines Steines, unter welchem sie während des Sonnenscheines an der Oberfläche des Baues liegen, die sorgsam Pflegerinnen sogleich heraufgestürzt kommen, eine ergreifen und damit eiligst im Inneren der Gänge verschwinden, um sie vor der Störung von außen zu schützen und in Sicherheit zu bringen. Als Trage dienen bei diesen Arbeiten die Kinnbacken; in der Eile wird auch einmal eine Bürde verloren, und da sind es die Fühler, welche allein nur das Wiederauffinden vermitteln. Selbst dann noch, wenn die junge Ameise im Begriffe steht, ihre Puppenhülle zu verlassen, sind die Schwestern hilfreich bei der Hand, zerreißen das Gespinnst und unterstützen das Befreiungswerk, welches in allen anderen Fällen dem neugeborenen Kerbtier allein überlassen bleibt. Somit erreicht bei den Ameisen die **Brutpflege** den höchsten Grad der Entwicklung unter allen gesellig lebenden Hautflüglern. Bedenken wir nun, daß ohne Beihilfe von Flügeln die eigene Nahrung und durch sie der Überschuss für die Brut zu bestimmten Zeiten für die zahlreichen Weibchen und Männchen herbeigeschafft werden muß, die alle nicht selbst für ihre Erhaltung sorgen, daß die Anlage, Erweiterung und Erhaltung des Nestes, alle diese mühsamen Verrichtungen dem Arbeiterstande zufallen, so ist es eben nur durch dessen Emsigkeit möglich, den schweren Pflichten nachzukommen, und er würde schließlich der Arbeit unterliegen, wenn nicht durch das Schwärmen der Überfüllung des Nestes und einer Überbürdung der Arbeiter von der Natur vorgebeugt worden wäre; doch hiervon später.

Im weiteren Verlaufe einer **allgemeinen** Schilderung des Ameisenlebens können wir uns nur an einzelne, besonders auffällige Erscheinungen halten, da es sich nicht nur bei einer und derselben Art je nach den äußeren Verhältnissen (Örtlichkeit, Jahreszeit, Witterungsverhältnisse usw.), sondern in noch viel höherem Maße bei den verschiedenen Arten außerordentlich mannigfach gestaltet und, wollen wir ehrlich sein, zum großen Teile nur stückweise und noch sehr unvollkommen zu unserer Kenntnis gelangt ist. Zunächst ist die Lebensdauer der verschiedenen Entwicklungsstufen und die Zeit, in welcher die einzelnen im Neste erscheinen,

verschieden nach den Arten, nach der Jahreszeit, nach den Jahrgängen. Bei gewissen Arten werden die sämtlichen Eier im Herbst gelegt und die fruchtbaren Weibchen finden sich im Frühjahre meist nicht mehr im Neste vor (*Solenopsis fugax*), bei den meisten anderen sind Eier vom Frühjahre an bis zum Herbst im Neste und bedürfen wohl die kürzeste Zeit (vierzehn Tage), um in den nächstfolgenden Entwicklungsstand überzugehen. Bei der oben genannten Art leben die Larven vom Herbst bis zum Juli des nächsten Jahres, während beispielsweise von *Tapinoma* anfangs April den Eiern entschlüpfte Larven schon vor Ende Mai zu Puppen werden können. Nächst den Eiern bedürfen diese in den meisten Fällen die nächst kürzere Zeit zu ihrer Entwicklung zum vollkommenen Kerfe, obschon auch sie überwintern können. Die Lebensdauer einer vollendeten Ameise läßt sich am schwierigsten feststellen, allenfalls vergleichungsweise behaupten, daß die der Männchen, welche nur der auf bestimmte Zeiten fallenden Fortpflanzung dienen, die kürzeste und die der befruchteten Weibchen länger als die der sich aufreibenden Arbeiter sein werde. Man nimmt an, daß die Stammütter bis wenig mehr als ein Jahr ihr Leben fristen können. Dieselben leben öfters in Mehrzahl in einem Neste, da sie die Eifersucht der Bienenköniginnen nicht kennen, geflügelte, also noch nicht befruchtete Weibchen und Männchen finden sich meist nur zu bestimmten Zeiten, obschon auch in dieser Beziehung Abweichungen wahrgenommen werden. So haben die Nester von *Formica pratensis* das ganze Jahr hindurch Männchen und Weibchen neben den Arbeitern, die von *Leptothorax* zu einer Zeit nur Männchen, zur anderen nur Weibchen.

Die Männchen von *Anergates* sind ungeflügelt, bei anderen Arten sind sie im Vergleiche zu ihren Weibchen viel zu groß, um von diesen im Fluge getragen werden zu können, in beiden Fällen findet also die Paarung nicht wie gewöhnlich beim Ausschwärmen statt. In solchen Nestern aber, wo zu bestimmten Zeiten, namentlich während des August, geflügelte Männchen und Weibchen im Neste erscheinen, halten sich dieselben eine Zeitlang im Inneren desselben verborgen, letztere beteiligen sich wohl auch insofern an den häuslichen Arbeiten, als sie die Larven und Puppen mit umbetten helfen. Zunächst wird es den Männchen, die zu Lufttieren geboren sind, in den unterirdischen Räumen zu eng, sie lustwandeln auf der Außenfläche des Haufens umher, besteigen Gräser und andere Pflanzen in der nächsten Nachbarschaft und verraten große Unruhe. Zwischen ihnen erscheinen Arbeiter, fassen sie mit den Zangen und suchen sie in das Nest zurückzubringen. Diese Aufregung währt einige Tage, dann aber bietet sich dem Blicke des Beobachters ein überraschendes Schauspiel, eine Hochzeit der Ameisen dar. Nichts Menschliches gibt einen Begriff von dem wirbelnden Aufbrausen, von dem man nicht weiß, ob es Liebe, ob es Wut bedeute. Zwischen dem Volke wilder Brautpaare, welche von nichts zu wissen scheinen, irren Ungeflügelte umher und greifen besonders die an, welche sich am meisten verwickelt haben, beißen sie, zerren sie so stark, daß man meinen sollte, sie wollten sie vernichten. Das ist aber nicht ihre Absicht, sie wollen sie vielmehr zum Gehorsam, zu sich selbst zurückbringen. Diese Jungfrauen überwachen also die Liebenden und führen eine strenge Aufsicht über die Vorfeier der Hochzeit, dieses wahre Volksfest. Jetzt grenzt die Wildheit an Raserei: in taumelndem Wirbel erheben sich die Männchen, nach ihnen die Weibchen und in wechselndem Auf- und Absteigen gelangen sie zu bedeutenden Höhen. Die Männchen stürzen sich auf ein Weibchen, von den kleineren bisweilen mehrere gleichzeitig, und verbinden sich mit ihm. Ein höherer Gegenstand dient ihnen gewissermaßen als Wahrzeichen bei diesem Gaukelspiele: ein Baumgipfel, eine Turmspitze, ein Berggipfel, selbst ein einzelner Mensch in einer ebenen Gegend. So geschah es *Huber*, dem wir so viel über die Sitten der Ameisen verdanken, daß ein Schwarm sich über seinem Haupte langsam mit ihm fortbewegte. Wie lästig sie bei dieser Gelegenheit werden können, erfuhr ich 1869 in Gesellschaft einiger Damen. Als wir die dunkle Treppe in dem Aussichtsturme des Kynast hinaufkrochen, warnten herabkommende Reisende wegen eines Ameisenschwarmes vor dem weiteren Vordringen. Wir wollten jedoch den herrlichen Blick auf das Hirschberger Thal von jenem Punkte aus kennen lernen und gingen mutig weiter. Die Tausende von Ameisen, welche sich an uns setzten, namentlich an eine lichtgekleidete Dame, verkümmerten uns den

Aufenthalt da oben ungemain; denn hier und da, wo sie auf die bloße Haut kamen, zwickten sie in das Fleisch und bewiesen in jeder Hinsicht eine ungewöhnliche Aufgeregtheit. Dergleichen Erfahrungen kann man ab und zu in der beliebten Reisezeit auf allen Aussichtstürmen machen, an denen es in den mitteldeutschen Gebirgen nirgends fehlt.

Die Ameisenschwärme an einem schönen Augustnachmittage, besonders nach einigen Regentagen, von *Lasius flavus*, *niger*, *alienus*, *fuliginosus*, *Myrmica* verschiedener Art, *Solenopsis fugax*, *Tapinoma caespitum* und anderen ausgeführt, haben bisweilen die Menschen in Furcht und Schrecken versetzt, namentlich dann, wenn die Schwärme einer größeren Landstrecke sich zu förmlichen Wolken vereinigt und die Spitzen der Kirchtürme als vermeintliche Rauchwölkchen umschwebt haben. Am 4. August 1856 regnete es bei St. Saphorin in der Schweiz Myriaden schwarzer, geflügelter Ameisen. Am 10. August, abends 5 Uhr 20 Minuten bis 6 Uhr, wurde von Wattwil bis Liechtenstein, der Thur entlang, eine von Südwest nach Nordost ziehende Wolke geflügelter Ameisen von schwarzbrauner Farbe in etwa dreihundert Fuß Höhe beobachtet. Zwischen beiden Orten löste sie sich auf und zerteilte sich auf Bäume, Häuser und Gräser. Im September 1814 berichtet ein englischer Chirurg vom Bord eines Schiffes, daß eine acht bis zehn Fuß breite Kolonne von sechs Zoll Höhe, bestehend aus großen Ameisen, das Wasser auf eine Strecke von fünf bis sechs (englischen) Meilen bedeckt habe. Auch die alten Chroniken erzählen von dergleichen Dingen. Am 2. August 1687, um 3 Uhr nachmittags, schwärmte eine solche Menge von Ameisen über dem Turme der Elisabethkirche zu Breslau, daß das Volk sie für Rauch ansah und einen Brand fürchtete. Kurz darauf wiederholte sich dieselbe Erscheinung um die übrigen Türme; es dauerte aber kaum eine Stunde, so fielen sie zu Boden, daß man sie hätte haufenweise auffaffen können. Am 19. Juli 1679, gegen 2 Uhr, ist eine Wolke großer Ameisen über Preßburg geflogen und nach einer Viertelstunde so dicht heruntergefallen, daß man auf dem Markte keinen Fuß vorsetzen konnte, ohne einige Dutzend zu zertreten; sie hatten alle die Flügel verloren, schlichen langsam umher und waren nach zwei Stunden gänzlich verschwunden. Genug der Beispiele. Legen wir uns jetzt die zwei Fragen vor: Wie sieht es während der Schwärmzeit im Neste aus, und was wird aus den Schwärmern?

Bei den schon einige Tage vor dem Schwärmen bemerkbaren Bemühungen der Arbeiter, unter dem geflügelten Volke Ruhe und Ordnung wieder herzustellen, gelingt es doch, ein oder das andere Weibchen und Männchen zurückzuhalten, welche sich in der nächsten Nestnähe paaren. Eins oder einige solcher Weibchen sind es, die sie in das Nest zurückbringen, ihnen die Flügel abreißen, denselben alle Fürsorge erweisen, sie belecken, füttern und in gleicher Weise behandeln, wie wir von den Bienen mit ihrer Königin bereits früher gesehen haben. Diese Stammutter sorgt nun durch Eierlegen für das Fortbestehen des Nestes. Die Schwärmer gelangen entfernt vom Geburtsneste, wie wir bereits sahen, schließlich wieder auf die Erde, tausende und aber tausende werden eine Beute anderer Kerfe oder solcher Tiere höherer Ordnungen, welche Geschmack an ihnen finden, oder die Männchen sterben nach wenigen Tagen planlosen Umherirrens einen natürlichen Tod, während die nicht verunglückten Weibchen Gründerinnen neuer Nester werden, sicher auf verschiedene Weise bei den verschiedenen Arten, auf welche aber, ist bisher noch bei keiner durch unmittelbare Beobachtung festgestellt worden. Zunächst entledigt sich das befruchtete Weibchen mit Hülfe seiner Beine der Flügel, gräbt sich an einem ihm passenden Plätzchen ein und legt Eier. Es liegt nun nahe, anzunehmen, daß es, wie die Wespen-, die Hummelmutter, für deren Entwicklung zu Arbeiterameisen Sorge trage und diesen die Nestanlage und alles weitere überlasse, für sich selbst nur das Eierlegen in Anspruch nehmend. Nie hat man aber eine vereinzelt Ameisenmutter mit Puppen, nicht einmal mit erwachsenen Larven angetroffen, sondern nur mit Eiern oder sehr kleinen Würmchen, und nie hat es bei den verschiedensten Versuchen in der Gefangenschaft gelingen wollen, durch Vermittlung eines befruchteten Weibchens Arbeiterameisen zu erhalten. Infolge dieser Erfahrungen hat man gemeint, daß Arbeiter derselben Art ein

»herabgeregnetes«, befruchtetes Weibchen aufgriffen und mit ihm eine neue Kolonie ins Leben riefen. Hierauf bezügliche Versuche sind aber gleichfalls missglückt und jenes meist als fette Beute von Arbeitsameisen verzehrt worden. Somit bliebe die Frage über die Entstehung **neuer** Nester noch eine offene, und es wird bei der Gründung ebenso wenig an der größten Vielgestaltigkeit fehlen, wie im übrigen Leben der so höchst interessanten kleinen Wesen. Aus diesem noch einige Züge mitzuteilen, ziehen wir für unsere Zwecke einer Unterscheidung zahlreicher Ameisenarten vor, wollen aber auch die folgenden Mitteilungen nur als eine Skizze betrachtet wissen. Wenn wir schon öfters Gelegenheit fanden, und sie auch im weiteren Verlaufe unserer Darstellung noch finden werden, von Schmarotzern zu sprechen, welche sich in den Wohnungen gewisser Hautflügler einfinden, so darf es nicht Wunder nehmen, daß auch in den Ameisennestern fremde Einwohner vorkommen. Dieselben stehen in sehr verschiedenen Verhältnissen zu den Ameisen, aber entschieden in anderen als jene Schmarotzer.

Zunächst wohnen **verschiedene** Ameisenarten in **einem** Neste, eine Erscheinung, welche man mit dem Namen der **gemischten Kolonien** bezeichnet hat. In denselben sind zwei wesentlich von einander verschiedene Fälle auseinander zu halten. Entweder nämlich lebt die eine Art in ihren drei Formen in dem Neste der anderen und bildet ihren **Gast**, oder es finden sich nur Arbeiter einer anderen Art vor, welche von den Arbeitern des Nestes im Larven- oder Puppenstande aus einem anderen Neste geraubt worden sind, weshalb man die letzteren **Raubameisen** genannt hat. Zu den **Gastameisen**, und zwar bei *Formica rufa* und *congerens*, gehört entschieden die kleine, gelbbrot glänzende *Stenamma Westwoodi* (eine Knotenameise), von welcher man, weil man sie nie selbständig gefunden hat, annehmen muß, daß ihr Bestehen von jenen Arten abhängig sei. Eine zweite Art, *Asemorhoptrum lippulum*, ist gleichfalls für eine Gastameise bei *Lasius fuliginosus*, *bruneus* und *Formica sanguinea* gehalten worden; von *Hagens* fand sie aber auch in selbständigen Staaten. - Zu den **Raubameisen** gehört entschieden die später näher zu besprechende *Formica sanguinea*; sie arbeitet aber gleich ihren **Sklaven**, wie man die geraubten Arbeiter genannt hat, und es läßt sich somit bei ihr ein Grund für ihr Räuberhandwerk nicht angeben. Anders verhält es sich mit der Amazonenameise (*Polyergus rufescens*), einer durchaus bräunlichroten Art des südlicheren Europa, welche jedoch auch bei Kleve, Mombach, Mainz, Soden beobachtet worden ist. Sie raubt die Larven von *Formica fusca* und *cunicularia* und zeigt sich dabei ungemein kühn und bissig, ist aber so arbeitsscheu, daß sie verhungern müßte, wenn sie nicht von ihren Sklaven gefüttert würde. Bei zwei anderen, für Raubameisen geltenden Arten (*Strongylognathus testaceus* und *Myrmica atrata*) sind die Verhältnisse abermals anders und noch nicht hinreichend aufgeklärt. Die Amazonenameise und erstere der beiden zuletzt genannten Arten haben, abweichend von allen anderen heimischen, walzenförmige und ungezähnte Kinnbacken, entbehren also derjenigen Einrichtung, welche die Kinnbacken der übrigen Arten zu Arbeitswerkzeugen gestalten.

Die **Ameisenfreunde** (*Myrmekophilen*) sind weitere Bewohner der Ameisennester und gehören den verschiedensten Kerfordnungen an. Mehrere Forscher haben diesen Gegenstand mit besonderer Vorliebe verfolgt und lange Verzeichnisse von diesen Tieren angefertigt, auch das Verhalten der Ameisen zu ihnen zu ermitteln sich bemüht. Hiernach lassen sich dieselben in drei Gruppen ordnen: 1) Ameisenfreunde, welche nur als Larven oder Puppen unter jenen leben und als unschädliche Gesellschafter geduldet werden. So nährt sich, wie wir früher sahen, die einem Engerlinge ähnliche Larve des *gemeinen Goldkäfers* (*Cetonia aurata*) von den vermodernden Holzstückchen des unteren Nestteiles bei der Waldameise. 2) Ameisenfreunde, welche in ihrem vollkommenen Zustande in den Nestern anzutreffen sind, hier aber nicht ausschließlich. Dahin gehören mehrere *Stutzkäfer* (*Hister*), *Kurzflügler*, diejenigen Blattläuse, welche nicht freiwillig, sondern, von den Ameisen hineingetragen, bei ihnen als »Milchkühe« leben müssen. Der besonderen Vorliebe aller Aderflügler für die Blattläuse wurde früher schon gedacht, sowie der Leidenschaft der Ameisen, jene ihrer süßen Auswürfe wegen allwärts aufzusuchen. Sie betasten dieselben mit ihren Fühlern, belecken sie und wissen ihnen

durch allerlei Liebkosungen auch Saft aus den Honigröhren zu entlocken, sie zu »melken«, wie man dieses Verfahren kurz bezeichnet hat. Um dies bequemer haben zu können, entführen sie die wehrlosen, schwachen Tierchen in ihre Nester und legen dabei weniger mütterlichen Sinn, als ganz gemeine Selbstsucht an den Tag. Bei den in Baumstämmen nistenden Arten, wie *Lasius fuliginosus* und *brunneus*, wohnt häufig eine Blattlaus, namens *Lachnus longirostris*, welche mit ihrem den Körper dreimal an Länge übertreffenden Schnabel an dem jungen Holze des Baumes saugt; in unterirdischen Ameisennestern erhalten wieder andere Blattlausarten ihre Nahrung aus den Wurzeln der Gräser und anderer Pflanzen in nächster Nachbarschaft. Oft umgeben Ameisen eine Gesellschaft von Blattläusen mit einem Gehäuse von Erde oder anderen Baustoffen, tragen auch ihre Larven in dasselbe, oder setzen eine Blattlausgesellschaft durch einen bedeckten Gang mit ihrem Neste in Verbindung. Solche bezeichnet von *Osten-Sacken* als »**stallfütternde**« Ameisen und erzählt von einer kleinen rötlichen Art der Gattung *Formica*, mit braunem Hinterleibe, welche in der Nähe von Washington eine schwarze *Lachnus*-Kolonie an einem Wachholderzweige ummauert hatte. Das röhrenförmige Futteral bestand aus einer graubraunen, filzartigen Masse, die sich als zusammengebackene Härchen, wahrscheinlich Bastschnitzeln, von harzigem Geruche ergab. Es war etwa sechsunddreißig Zentimeter lang und ein Drittel dieser Erstreckung breit, als es zur näheren Untersuchung abgebrochen wurde. Bei einer anderen Gelegenheit fand derselbe Forscher in Virginien an einem dicht mit Blattläusen besetzten Asclepiasstengel ein zerbrechliches, kugelförmiges Gehäuse von ungefähr 2,19 Zentimeter Durchmesser, welches einer schwarzen Ameise seinen Ursprung verdankte. In heißen Ländern, wo Blattläuse fehlen, vertreten die ihnen verwandten kleinen *Eikaden* deren Stelle. 3) Ameisenfreunde, welche auf allen ihren Lebensstufen **ausschließlich** in den Nestern bestimmter Ameisen leben, ohne welche sie überhaupt nicht bestehen würden. Hierher gehören der *gelbe Keulenkäfer* mit seinen Verwandten und noch zahlreichere *Staphylinen*. - In Deutschland kennt man über dreihundert Kerfarten aller Ordnungen, welche zu einer oder der anderen dieser drei Gruppen zählen, hauptsächlich jedoch den Käfern angehören, unter diesen allein einhundertneunundfünfzig *Staphylinen*. Die meisten leben bei *Lasius fuliginosus* (150 Arten) und *Formica rufa* (100 Arten), von den wenigsten kennt man indessen zur Zeit noch die näheren Beziehungen, in welchen sie zu ihren Wirten stehen.

Das geschäftige Treiben der Ameisen hat ihnen vor tausenden anderer Kerfe von jeher die regste Teilnahme derer abgenötigt, welche überhaupt Sinn für solche Dinge haben, wie uns die zum Teil treffenden Bemerkungen der griechischen und römischen Naturforscher aus dem grauen Altertume beweisen. Das Leben der Ameisen ist nach *Plutarch* gewissermaßen der Spiegel aller Tugenden: der Freundschaft, der Geselligkeit, Tapferkeit, Ausdauer, Enthaltbarkeit, Klugheit und Gerechtigkeit. *Kleanthes* behauptet zwar, die Tiere hätten keine Vernunft, erzählt aber doch, er habe folgendes gesehen: Es wären Ameisen in die Nähe eines fremden Ameisenhaufens gekommen und hätten eine tote Ameise getragen. Aus dem Haufen wären nun dem Leichenzuge Ameisen wie zur Unterredung entgegengekommen, dann wieder zurückgegangen. Dies wäre zwei- bis dreimal geschehen. Endlich hätten die Ameisen aus dem Haufen einen Wurm hervorgeschnitten und hätten ihn den Trägern der Leiche übergeben, um letztere von ihnen loszukaufen. Diese hätten den Wurm angenommen und die Leiche dagegen abgelassen. - Jedenfalls bemerkt man überall bei sich begegnenden Ameisen, wie sie die Tugend der Bescheidenheit üben, indem alle, die leer gehen, den Beladenen ausweichen; wie sie ferner Dinge, die nicht gut fortzuschaffen sind, weislich teilen, so daß die Last dann auf mehrere verteilt werden kann. - *Aratus* sagt, wenn Regen bevorstände, brächten sie vorher ihre Eier an die Luft; andere aber schreiben, dies wären keine Eier, sondern Körner, die sie lüfteten, um sie vor Fäulnis zu schützen. - Auch auf eine andere Weise schützen sie mit außerordentlich kluger Berechnung die Körner vor dem Verderben: Volle Sicherheit vor Nässe können sie denselben nicht geben, und die natürliche Folge davon ist, daß sie weich werden und keimen wollen. Dem Keimen beugen sie dadurch vor, daß sie aus jedem Korne den Keim herausbeißen. - Es ist zwar unrecht, wenn man einen Ameisenhaufen öffnet und durchsucht, wie

wenn man ihn anatomieren wollte, allein Leute, welche dies dennoch getan, versichern, vom Eingange aus gehe kein gerader Weg in die inneren Gemächer, durch welchen dann auch andere Tiere hineinkriechen könnten; der Weg führe vielmehr vielfach gekrümmt und gebrochen in die drei Gemächer. Von diesen sei das eine die gemeinsame Wohnung, das zweite die Vorratskammer, das dritte die Totenkammer. *Aristoteles* widmet an verschiedenen Stellen den Ameisen nur wenige Zeilen: Bienen, Ameisen, Wespen, Kraniche leben in geschlossenen Gesellschaften, die Kraniche und Bienen unter einem Oberhaupte, die Ameisen aber nicht. Sie sind teils geflügelt, teils flügellos. Sie riechen Honig von weitem. Bestreut man ihre Wohnungen mit gepulvertem Schwefel oder mit Dosten, so ziehen sie aus. Die Ameisen bringen Maden zur Welt, die anfangs klein und rundlich sind, dann sich durch Wachstum verlängern und Glieder bekommen. Die Fortpflanzung findet vorzüglich im Frühjahr statt. Die Ameisen sind immerfort in Tätigkeit, laufen immer denselben Weg, tragen Speisen hervor oder verbergen sie, arbeiten bei Vollmond selbst in der Nacht. **Sie jagen zwar nicht selbst, tragen aber zusammen, was sie finden.**

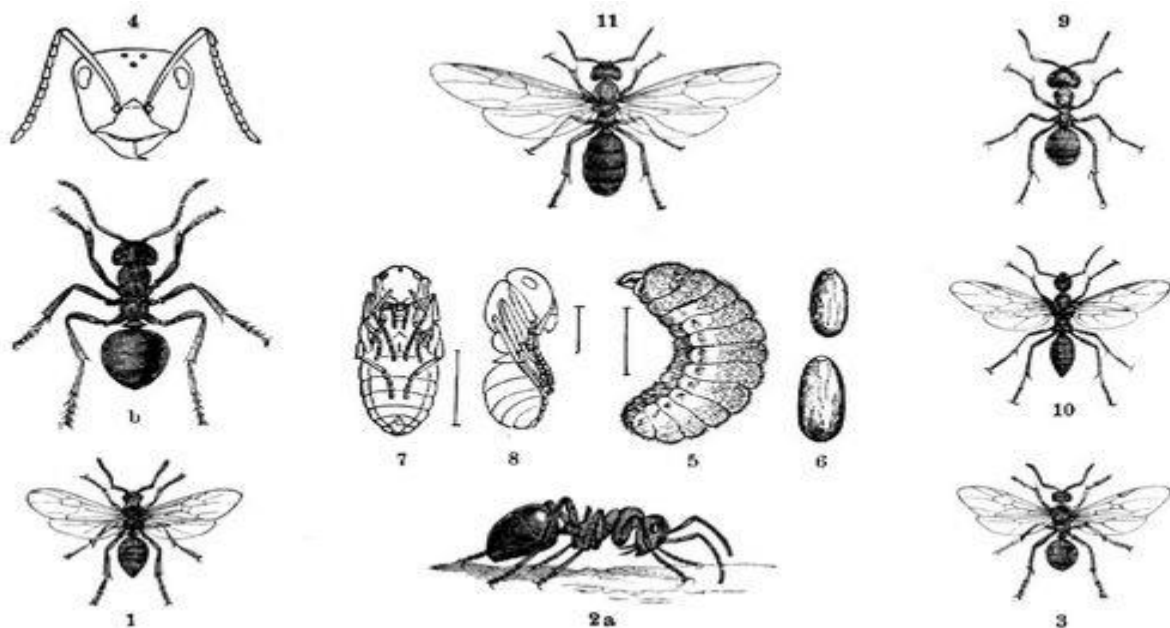
*Plinius* (11, 30, 36) wiederholt in der Hauptsache dieselben eben vorgetragenen Ansichten und fährt dann fort: »Wie groß ist ihre Anstrengung bei der Arbeit, wie anhaltend ihr Fleiß! Und weil sie, ohne voneinander zu wissen, aus verschiedenen Gegenden Waren zusammentragen, so haben sie bestimmte Markttage, an welchen allgemeine Musterung gehalten wird. Dann wimmelt's und grimmelt's und die einander Begegnenden befragen und besprechen sich mit großer Sorgfalt. Man sieht Steine, in welche sie nach und nach Wege getreten haben und man erkennt hier aus, wie viel selbst die Emsigkeit schwacher Geschöpfe vermag. Die Ameisen sind, außer dem Menschen, die einzigen Tiere, welche die Toten begraben. In Sizilien gibt es nur ungeflügelte«. Auch *Aelian* betont an einigen Stellen das Eintragen von Körnern und deren Behandlung, um ihr Keimen zu verhindern.

Abgesehen von dem Begraben der Toten, welcher Irrtum möglicherweise dadurch entstanden ist, daß jede lahme oder hilfsbedürftige Ameise von den ihr begehenden Schwestern in das Nest geschleppt und gepflegt wird, ist das Wesen der Ameisen schon von Alters her richtig erkannt und gewürdigt worden, vor allem ihre große Arbeitsamkeit, Klugheit und das Vermögen, Mitteilungen unter sich auszutauschen. Es sind in dieser Hinsicht in späteren Zeiten allerlei Ansichten laut geworden, eine Zeichensprache an verschiedenen Beispielen nachgewiesen und ziemlich allgemein angenommen, namentlich aber die Fühlhörner als das wichtigste Werkzeug zu der Aufnahme der Eindrücke von außen angesehen worden. Neuerdings meint *Landois* den Beweis geliefert zu haben, daß den Ameisen außerdem **eine wirkliche Tonsprache** zukomme, welche allerdings für das menschliche Ohr meist nicht wahrnehmbar sei. Nachdem bei den *Spinnenameisen* (*Mutilla*) an einigen Hinterleibsringen das Werkzeug aufgefunden worden war, mit welchem dieselben sehr wohl auch für das menschliche Ohr hörbare Töne hervorbringen können, untersuchte der genannte Forscher verschiedene Ameisengattungen und fand bei *Ponera* sehr entwickelte Reibleisten am zweiten und dritten Hinterleibsringe, deren Ton übrigens auch dem menschlichen Ohre vernehmbar; weniger entwickelt fanden sie sich bei anderen Gattungen, so daß der Genannte die oben aufgestellte Behauptung für gerechtfertigt hält. Wir können diesen höchst interessanten Gegenstand hier nicht weiter ausführen, durften denselben aber auch nicht ganz mit Stillschweigen übergehen.

Fossile Ameisen finden sich in großer Menge in den Tertiärschichten, und die Schieferplatten von Oeningen (im badischen Seekreise) sind oft mit Ameisenabdrücken der verschiedensten Arten förmlich bedeckt. Auch der Bernstein enthält zahlreiche Ameiseneinschlüsse, jedoch meist nur geflügelte. Das Heer der noch lebenden hat man in **fünf** Sippen eingeteilt: die **Drüsenameisen** (*Formicidae*), deren in den Gliedern nicht eingeschnürter Hinterleib an einem eingliedrigen, schuppentragenden Stiele sitzt; die **Zangenameisen** (*Odontomachidae*) haben dieselbe Hinterleibsform, einen Wehrstachel und in dem weiblichen Geschlechte Kinnbacken, deren Einlenkungsstellen sich gegenseitig berühren. Bei den **Stachelameisen**

(*Poneridae*) wird zwischen dem ersten und zweiten Hinterleibsgliede eine Einschnürung bemerkbar, den Giftstachel und den eingliedrigen Stiel haben sie mit der vorigen sowie mit der folgenden Sippe, den **Blindameisen** (*Dorylidae*), gemein, wo die Weibchen und Arbeiter augenlos sind. Ein zweigliedriger Hinterleibsstiel endlich kennzeichnet die Sippe der stacheltragenden **Knotenameisen** (*Myrmicidae*).

Zu den artenreichsten Gattungen der **Drüsenameisen** gehört *Camponotus*. Die S-förmig gebogenen Stirnleisten, die vom Kopfschild entfernt eingelenkten Fühler und der Mangel der Nebenaugen bei den Arbeitern charakterisieren sie. Unsere größte deutsche Emse, die Roßameise (*Camponotus herculeanus*, Fig. 9 bis 11), liebt die bewaldeten Gebirgsgegenden und legt ihr Nest unten in alten Bäumen an. Wenn sie im Sommer vor der Schwärmzeit sich bemerklich macht, staunt man über die mächtigen, bis 17,5 Millimeter langen Weibchen, welche den Grund jener Stämme schwarz färben. Die gelben Spitzen ihrer langen, den Hinterleib weit überragenden Flügel zeichnen sie aus. Bei genauerer Betrachtung schimmert der Körper infolge grauer Behaarung in dieser Farbe. Die am Mittelleibe glanzlosen Männchen und die Arbeiter werden 8,15 bis 11 Millimeter lang. Unter demselben deutschen Namen ist eine zweite Art (*Camponotus ligniperdus*) gemeint, welche sich durch dunkelrote Zeichnung am Mittelleibe unterscheidet und sich samt der vorigen über Europa bis Ostsibirien und Nordamerika ausbreitet, von der Ebene bis zu den höchsten Alpen. Andere zahlreiche Arten derselben Gattung kommen in allen Erdteilen ohne Ausnahme vor.



Rote Waldameise (*Formica rufa*). 1 Männchen, 2 a und b stark vergrößerte Arbeiter, 3 Weibchen, 4 Kopf eines Arbeiters, 5 Larve, 6 Puppengehäuse, sogenanntes Ameisenei, 7, 8 Puppe (4-8 vergrößert). - Roßameise (*Camponotus herculeanus*). 9 Arbeiter, 10 Männchen, 11 Weibchen. Alle in natürlicher Größe.

Die **rote Waldameise**, **Hügelameise** (*Formica rufa*, Fig. 1 bis 8), hat ein nicht ausgerandetes Kopfschild, fein gerunzeltes Stirnfeld, unbehaarte Augen, eine aufrechte, beinahe verkehrt herzförmige, schneidige Stielschuppe, einen braunroten, beborsteten Mittelleib mit schwärzlichen Flecken, das Männchen dagegen einen durchaus braunschwarzen, infolge der Behaarung aber aschgrau schimmernden; dasselbe ist größer als das Weibchen (11 Millimeter), dieses nur 9,87, und der Arbeiter gar nur 4,5 bis 6,5 Millimeter. Die Gattungsmerkmale, welche der Art zukommen, bestehen in folgenden: Zwölf Glieder der Fühler beim Weibe, dreizehn beim Manne, diese unmittelbar hinter dem Kopfschild eingelenkt, welches sich nicht zwischen ihre Schäfte fortsetzt, ein scharf abgegrenztes Stirnfeld und nach oben wenig auseinander

gehende Stirnleisten; die Arbeiter haben Nebenaugen, wie die geflügelten Geschlechter, und die Männchen messerförmige Klappen an den großen Genitalien.

Die Waldameise lebt in ganz Europa, in Asien bis Ostindien und in Nordamerika. Sie baut unter unseren heimischen Arten die mächtigsten Nester, indem sie in den Nadelwäldern Hügel von vierundneunzig bis einhundertfünfundzwanzig Zentimeter Höhe aus Blattteilchen, Nadeln, Harzkrümchen, Erdklümpchen, Holzstückchen mit bewundernswürdiger Ausdauer und Kraftanstrengung zusammenschleppt und auftürmt. Die Nester nehmen unter der Bodenfläche einen noch viel größeren Umfang an als am oberirdischen Teile. Zerstört man einen solchen Hügel, so kommen tausende von Arbeitern in dichtem Gewimmel zum Vorschein. Für den erschöpften Wanderer kann es nichts Erquickenderes geben, als wenn er die flache Hand, mit welcher er einige rasche Schläge auf einen solchen Hügel führte, unter seine Nase hält. Es ist bei dieser Behandlungsweise Schnelligkeit als Vorsichtsmaßregel notwendig, damit sich keins der hierdurch wütend gemachten Tiere in die Hand einbeißt oder an den Körper krieche, weil es sonst durch sehr unangenehmes Zwicken sich empfindlich rächen würde. Einst klopfte ich ein solches Nest, welches am Rande eines Waldes etwas hoch lag, und zwar genau vor der im Scheiden begriffenen Sonne. Nachdem wir, meine mich begleitenden Damen und ich, den aromatischen Hauch von meiner Hand eingeschlürft hatten und uns im Weggehen nochmals nach den hörbar sehr unangenehm berührten, erzürnten Tierchen umsahen, genossen wir das einzige Schauspiel: hunderte von silbernen Fontänen, beleuchtet durch die Strahlen der sinkenden Sonne, sprudelten von allen Seiten bis zweiundsechzig Zentimeter in die gewürzige Luft und lösten sich auf ihrem Rückwege in zarte Nebel auf. Eine Sekunde, und alles war vorüber, nur ein Geknistern und Genisteln zwischen dem aufgewühlten Baumaterial hörte man bei der abendlichen Feierstille auf viele Schritte Entfernung, die fortdauernde Aufregung der so unfreundlich in ihren verbrieften Rechten beeinträchtigten Tiere. Daß sie aus der Hinterleibsspitze die Ameisensäure von sich geben und so einem klopfenden Werkzeuge deren Geruch mitteilen, war mir bekannt, daß sie dieselbe aber mit solcher Gewalt zu solcher Höhe emporschleudern könnten, hatte ich nicht geahnt.

Das Innere dieser Nester enthält ein Gewirre von kreuz und quer sich vereinigenden Gängen und kleinen Höhlungen, in denen sich die Bewohner herumtummeln, und von welchen nach allen Seiten hin Haupt- und Nebenstraßen weit von dem Hügel weg führen, welche durch das ununterbrochene Herbeischaffen weiterer Pflanzentrümmer förmlich geglättet sind.

Die **blutrote Raubameise** (*Formica sanguinea*) ist der vorigen sehr ähnlich und früher öfters mit ihr verwechselt worden, unterscheidet sich aber durch ein ausgerandetes Kopfschild und im männlichen Geschlechte durch einen vier- bis fünfzähligen Kaurand der Kinnbacken gegen einen ungezähnten bei dem Männchen der vorigen Art, außerdem wesentlich in der Lebensweise. Ihre Haufen sind von geringerer Größe, beherbergen andere und bedeutend weniger Käfergäste (gewöhnlich die beiden Kurzflügler *Lomechusa strumosa* und *Dinarda dentata*) und die Arbeiter von *Formica fusca*, *cunicularia* und seltener auch von *Lasius alienus*, welche alle im Larvenzustande von den Arbeitern des Nestes geraubt werden. In förmlichen Heerzügen begeben sie sich nach dem Neste einer der genannten Arten, dringen mit Ungestim in den Bau ein, töten alles, was sich ihnen zur Wehr setzt und tragen Larven und Puppen der Arbeiter davon. Dergleichen Schlachten sind von verschiedenen Forschern beobachtet worden. Die jenen entschlüpften Ameisen, nicht wissend, daß sie in fremde Dienste getreten sind, gehen gleich den Arbeitern der *Formica sanguinea* den gewöhnlichen Beschäftigungen nach, scheinen aber vorherrschend den häuslichen Bedürfnissen zu dienen. Zerstört man einen solchen Bau teilweise, so werden sie zunächst sichtbar, um den entstandenen Schaden wieder auszubessern, während die Herren nur unruhig umherlaufen. Selten zeigen sie sich mit jenen außerhalb des Nestes. Bei einer Wanderung der *Formica sanguinea*, welche Darwin beobachtete, hätten die Herren ihre Sklaven zwischen den Kinnbacken davongeschleppt, während von *Hagens* einen gleichen Umzug im August beobachtete, bei welchem teils die Herren ihre

Sklaven, teils diese die Herren nach der anderen Kolonie trugen. Es kommt nämlich bisweilen vor, daß Ameisen ihr Nest freiwillig verlassen und umziehen, wenn irgendwelche Umstände ihnen den bisherigen Aufenthalt verleidet haben (Nässe, öftere Störung seitens des Menschen oder anderer Ameisen, wenn Dünger auf oder neben das Nest getragen worden ist usw.).

Während die *Formica*-Arten in der Erde nisten, wählen die **Höcker-Drüsenameisen** (*Lasius*) die verschiedenartigsten Baustellen.

Die Gattung läßt sich an folgenden Merkmalen der Arbeiter und Weibchen erkennen: Das vorn nicht ausgerandete Kopfschild ist trapezförmig und gewölbt, an den Hinterecken stark gerundet, wo die ziemlich kurzen Stirnleisten beginnen und die zwölfgliedrigen Fühler eingelegt sind; die Geißel derselben ist keulenförmig, jedes Glied vom zweiten an wenig größer als das vorangehende, und das letzte länger als das erste. Die Nebenaugen sind sehr undeutlich. Der Mittelleib ist vor dem buckeligen und ungezähnten Hinterrücken stark eingeschnürt, das Stielchen mit einer viereckigen, senkrechten oder beinahe senkrechten Schuppe versehen, auf welche der Hinterleib sich nicht auflegt. Der weibliche Flügel hat eine Rand- und eine oder keine Mittelzelle aufzuweisen. Die breiten Kinnbacken des Männchens sind am Kaurande schneidig und nur vorn einzählig oder durchaus gezähnt, die unter sich fast gleichen Geißelglieder der dreizehngliedrigen Fühler fadenförmig, das erste am dicksten. Die kleinen Genitalien werden von der Rückenseite dachartig bedeckt, ihre äußere Klappe bildet eine schmaler werdende, am Ende halbkreisförmig abgerundete Platte; die Afterklappe ist nicht ausgeschnitten.

Die glänzend **schwarze Holzameise** (*Lasius fuliginosus*), die größte von allen (bis 11 Millimeter) und über ganz Europa verbreitet, mit Ausnahme der Pyrenäischen und Balkan-Halbinsel, legt Irrgänge in alten Baumstämmen an oder kittet dergleichen zusammen, wenn der Zahn der Zeit schon zu lange genagt und das Holz in Erde verwandelt hatte. - Die **braune Ameise** (*Lasius niger*), in ganz Europa und in Nordamerika, auch auf Madeira ansässig, baut, gleich ihrer nur auf die Südhälfte Europas beschränkten Schwester, *Lasius alienus*, wie es eben passen will, in die Erde, in hohle Bäume, zwischen Moos und dergleichen. - *Lasius emarginatus* sucht mit Vorliebe die Ritzen in Gartenmauern auf. Die wegen ihrer empfindlichen Bisse berühmten **gelben Ameisen**, welche gleichfalls dieser Gattung angehören und mehrere Arten enthalten, von denen *Lasius flavus* am verbreitetsten ist, bauen bekanntlich in die Erde unter dem Schutze eines Steines oder eines Hügels.

Die **Stachelameisen** (*Poneridae*) führen diesen Namen, weil Arbeiter und Weibchen mit einem Stachel bewehrt sind. Ihre Gesellschaften bestehen aus nur wenigen Gliedern, sind meist nur im Arbeiterstande bekannt und in Europa sparsam vertreten. - Die von *Latreille* aufgestellte, bisher zu den Poneriden gerechnete Gattung *Odontomachus* hat man mit noch einigen anderen zu einer besonderen Sippe erhoben und zwischen die Drüsen- und Stachelameisen eingeschoben. Die schlanken, schmalen Tiere zeichnen sich durch den langen, nach hinten gerichteten Dorn auf ihrem einzigen Stielknoten aus, sowie durch die zwei Unterrandzellen und die drei Mittelzellen in den Flügeln. Das Merkwürdigste an ihnen bleiben aber bei Weibchen und Arbeitern die Kinnbacken durch ihre Bildung und Anheftung; an der äußersten Spitze des auffällig gestreckten Kopfes sitzen sie, die übermäßig langen, mit den Wurzeln dicht bei einander, wie die Flügel einer Drahtzange vor ihrem Niete. Nur Asien und Südamerika ernähren dergleichen interessante Tiere.

Eine vierte, ebenfalls nur ausländische Sippe, welche von anderen Schriftstellern als selbständige Familie hinter die Ameisen gestellt worden, können wir an dieser Stelle durch eine kurze Bemerkung über die Lebensverhältnisse einer Art einführen. Die **Doryliden** (*Dorylus*, *Labidus*, *Anomma* und andere), welche man in der Dreigestaltigkeit der Arten noch sehr unvollkommen kennt, gehören nur den heißen Erdstrichen an, vorzugsweise Ostindien, Senegambien und Brasilien.

Die **Treiberameise** (*Anomma arcens*), eine Bewohnerin des westlichen Afrika, hat sich durch ihre eigentümliche Lebensweise eine gewisse Berühmtheit erworben. Die Gesellschaft, in welcher sich kleinere und größere (bis elf Millimeter lange) Ameisen befinden, hat keine festen Wohnsitze, sondern führt ein umherschweifendes Leben. Weil den Tieren die brennenden Sonnenstrahlen verderblich werden, so halten sie sich bei Tage unter Gras und im Dickicht verborgen und ziehen nur des Nachts auf Raub aus. Mitunter sind sie aber doch genötigt, ins Freie zu gehen, und dann übermauern sie sofort die Straße, welche sie zu ziehen haben, durch ein aus Erde und Speichel gemengtes Gewölbe. Auf ihren Raubzügen fallen sie größere Tiere an, und zwar deren Augen zunächst in Angriff nehmend, darum sollen ihnen selbst Riesenschlangen erliegen. Dem getöteten Opfer saugen sie das Blut aus, wie berichtet wird, zerschroten das Fleisch und schleppen es nach ihren Schlupfwinkeln. Auch in menschlichen Wohnungen lassen sie sich bisweilen blicken, wo eine allgemeine Flucht der Ratten, Mäuse, Schaben, Eidechsen, welche sich etwa darin aufhalten, ihre Annäherung verkündigt und die Einwohner mahnt, schleunigst ihre Betten zu verlassen und das Freie zu suchen. Werden zur Regenzeit ihre Schlupfwinkel überschwemmt, so scharen sie sich in einen runden Haufen, die Brut und Schwächlinge in die Mitte nehmend, zusammen und treiben auf den Fluten, bis sie an irgendeiner Stelle auf das Land abgesetzt werden. Über Bäche und schmälere Gewässer, auf welche sie bei ihren Wanderungen stoßen, sollen sie eine lebendige Brücke schlagen, indem sie sich an einander befestigen, wie wir dieses Verfahren bald von einer amerikanischen Art näher erfahren werden.

Die **Knotenameisen** (*Myrmicidae*) bieten den größten Formenreichtum dar und nötigen die Systematiker, sie auf ungefähr zweiundvierzig Gattungen zu verteilen, welche bei weiteren Forschungen noch vermehrt werden dürften. Der zweiknotige Hinterleibsstiel und Stachel bei Weibchen und Arbeitern bilden die allen gemeinsamen Merkmale. Gattungen wie *Myrmica*, *Eciton* und *Atta*, *Aphaenogaster*, *Monomorium*, *Typhlatta* und andere, deren drei erstere länger bekannt sind, die anderen den beiden eifrigsten Ameisenforschern (Myrmecologen) der Neuzeit, *G. Mayr* in Wien und *Smith* in London, ihre Gründung verdanken, gehören hierher und liefern zum Teil zahlreiche Arten. Es sei nur weniger heimischen gedacht, um Raum für einige interessante Schilderungen aus den großartigen Lebensverhältnissen mehrerer fremdländischen zu gewinnen.

Die **Rasenameise** (*Tetramorium caespitum*) ist überall in Wäldern, Gärten, Wiesen, unter Steinen, Baumstumpfen, Rasen sehr gemein. Die unterirdischen Gänge haben eine weite Verbreitung, lockern die Erde und schaden dadurch der Wurzel zarterer Pflanzen in den Gärten. Weil die Puppen sich in dieser Sippe nicht einspinnen, die der Weibchen überdies für die kleinen Arbeiter riesig erscheinen, so gewährt es einen höchst eigentümlichen Anblick und setzt große Kraftanstrengung seitens der Arbeiter voraus, wenn jene täglich mehrmals umgebettet werden. Im August und September schwärmen diese Ameisen, und dann sieht man die Geflügelten an Gräsern allerwärts umhersitzen und geschäftig umherlaufen; die Arbeiter kommen als Sklaven auch in den Nestern von *Strongylognathus testaceus* vor. Die Gattung ist charakterisiert durch ein hinten seitlich aufgebogenes und die Fühlergrube unterwärts umrandendes Kopfschild, vielgliedrige Kiefer-, dreigliederige Lippentaster, durch zwölfgliedrige Fühler, deren drei letzten Geißelglieder mindestens so lang oder länger als die übrigen sind, und durch einen nicht eingeschnürten, hinten zweizähligen Brustkasten. Die Männchen zeichnen sich durch einen Gabeleindruck auf dem Rücken des Mittelleibes, ungeteilte Randzelle, zehngliedrige Fühler, deren Schaft kürzer als das zweite Geißelglied ist, und durch gezähnten Kaurand aus. Die Rasenameise ändert in der Färbung von gelbbraun bis braunschwarz ab; Kinnbacken, Geißel, Gelenke der Beine und Fühler sind heller, Kopf, Mittelleib und Stielchen runzelig längsstreifig, beim Weibchen Mittelrücken und Schildchen glatt; das Männchen ist am dunkelsten, glänzend braunschwarz, an Kinnbacken, Fühlern und Beinen gelblich, nur an Kopf und Hinterrücken längsriefig. Die Arbeiter erlangen eine Größe von 2,3 bis 3,5 Millimeter,

die Weibchen dagegen von 6 bis 8, die Männchen bis 7 Millimeter.

Die **rote Ameise** (*Myrmica laevinodis*) geht in den Größenverhältnissen der Arbeiter (bis 5 Millimeter) und der Weibchen (bis 7 Millimeter) weniger auseinander, ist braunrot, auf der Mitte des ersten Hinterleibsgliedes dunkler, hat als Gattungsmerkmale sechsgliedrige Kiefer-, viergliedrige Lippentaster, eine Fühlergeißel, deren letzte drei Glieder entschieden kürzer als die vorhergehenden zusammen sind, zwei Dornen am Hinterrücken, keulenförmige Schenkel und kammzähnlige Schienensporen. Der Knoten des Hinterleibes ist bei unserer Art obenauf glänzend und glatt, der Fühlerschaft am Grunde gebogen und die Kaufläche der Kinnbacken sieben- bis achtzähnlige. Diese Art lebt ebenso wie die vorige und kommt in gleicher allgemeiner Verbreitung vor.

Die **ackerbautreibende Ameise** (*Myrmica molificans*) ist Gegenstand eines Berichtes geworden, welchen *Darwin* an die *Linnean Society* in London auf Grund der in Texas von *Linsecom* angestellten Beobachtungen abgestattet hat. In diesem Berichte heißt es: »Die Art, welche ich die »ackerbautreibende« nenne, ist eine große braune Ameise. Sie wohnt in gepflasterten Städten, wie man es nennen könnte, und trifft, gleich einem fleißigen, vorsichtigen Landwirte, passende und zeitgemäße Anordnungen für die verschiedenen Jahreszeiten. Kurz, sie ist begabt mit Geschick, Sinn und unermüdlicher Geduld, um erfolgreich gegen die wechselnden Notfälle anzukämpfen, die ihr im Leben begegnen mögen. Wenn sie einen Platz für ihren Aufenthalt ausgewählt hat, bohrt sie, im Falle es gewöhnlicher, trockener Boden ist, ein Loch, um welches sie den Boden drei bis sechs Zoll erhöht, indem sie einen niedrigen, kreisförmigen Wall bildet, welcher vom Mittelpunkte bis zum äußeren Rande, der durchschnittlich drei bis vier Fuß vom Eingange entfernt ist, sanft abwärts steigt. Wenn aber die Örtlichkeit auf flachem Lande ist, welches überschwemmt werden kann, dann erhöht sie den Wall in Gestalt eines ziemlich spitzen Kegels auf fünfzehn bis zwanzig Zoll oder mehr und macht den Eingang nahe der Spitze, wenn auch zu der Zeit, wo sie ihren Bau anlegt, der Boden vollkommen trocken ist. In beiden Fällen reinigt die Ameise den Grund rings um den Wall von allen Hindernissen und glättet die Oberfläche bis zu einer Entfernung von drei bis vier Fuß vor dem Thore der Stadt, indem sie dem Platze das Ansehen eines schönen Pflasters gibt, was es auch wirklich ist. Innerhalb dieses Hofes wird außer einer einzigen Art von korntragendem Grase kein grünes Blatt geduldet. Nachdem das Insekt dieses Korn ringsum in einem Kreise, zwei bis drei Fuß von der Mitte des Walles entfernt, gepflanzt hat, pflegt es dasselbe mit steter Sorgfalt, indem es alle anderen Gräser und Kräuter abbeißt, welche dazwischen und in einer Entfernung von einem bis zwei Fuß außen um den Ackerkreis aufsprießen sollten; das gebaute Gras wächst aufs üppigste und gibt einen reichen Ertrag kleiner, weißer, kieselharter Samen, welche unter dem Mikroskope gewöhnlichem Reife sehr ähnlich sehen. Wenn es reif ist, wird es sorgfältig eingeerntet und von den Arbeitern mitsamt der Spreu in die Kornkammer getragen, wo es von der Spreu befreit und weggepackt wird. Die Spreu wird über die Grenzen des gepflasterten Hofes hinausgeworfen. Während anhaltenden Regenwetters kommt es zuweilen vor, daß die Vorräte nass werden und der Gefahr ausgesetzt sind, zu sprossen und zu verderben. In diesem Falle bringen die Ameisen am ersten schönen Tage das feuchte und beschädigte Korn heraus und setzen es der Sonne aus, bis es trocken ist, worauf sie alle gesunden Körner zurücktragen und wegpacken, während sie die sprossenden umkommen lassen«.

»In einem Pfirsichgarten«, heißt es weiter, »nahe meinem Hause, befindet sich eine beträchtliche Erhebung, mit ausgedehntem Felsenlager. Im Sande, welcher Teile dieses Felsens bedeckt, liegen schöne Städte der „ackerbautreibenden Ameisen“ von offenbar sehr hohem Alter. Meine Beobachtungen über ihre Sitten und Gewohnheiten beschränken sich auf die letzten zwölf Jahre, während welcher Zeit die Umzäunung des Gartens das Vieh von den Ameisenäckern abgehalten hat. Die Städte, welche sich außerhalb der Umzäunung befinden, sind wie die inneren zur geeigneten Jahreszeit mit dem „Ameisenreis“ bepflanzt. Man kann daher das Getreide immer gegen den ersten November jedes Jahres aufschließen sehen. In den

letzteren Jahren jedoch, seitdem die Zahl der Landwirtschaften und des Viehes sich sehr vermehrt hat, das letztere das Gras viel genauer abfrisst als früher und so das Reifen der Saat verhindert: bemerke ich, daß die ackerbautreibenden Ameisen ihre Städte längs den Zwischenwegen auf den Feldern, den Spazierwegen in Gärten, inwendig in der Nähe der Tore und dergleichen anlegen, wo sie ihre Felder bebauen können, ohne vom Vieh belästigt zu werden. Es kann nicht bezweifelt werden, daß die eigentümliche Art des oben erwähnten Grases absichtlich gepflanzt wird. In landwirtschaftlicher Weise wird der Boden, auf dem es steht, sorgfältig von allen anderen Kräutern während der Zeit seines Wachstumes gereinigt. Wenn das Korn reif ist, wird dafür Sorge getragen, die trockene Stoppel abgeschnitten und fortgeschafft und der gepflasterte Hof unbehelligt gelassen bis zum folgenden Herbste, wo derselbe „Ameisenreis“ in demselben Kreise wieder erscheint und dieselbe wirtschaftliche Fürsorge erhält, welche auf die vorhergehende Saat verwandt wurde und so fort, Jahr auf Jahr, wie ich weiß, daß es der Fall ist unter allen Verhältnissen, unter denen die Ansiedelungen der Ameisen vor grasfressenden Tieren geschützt sind.«

Die **Ecitons** bewohnen Brasilien, einige bis Mexiko reichend, und sind bisher fast nur im Arbeiterstande bekannt geworden. Sie unterscheiden sich von den übrigen Knotenameisen durch zweigliedrige Kiefer-, und dreigliedrige Lippentaster, durch eine Grube für die zwölfgliedrigen Fühler, welche nach innen von den Stirnleisten, nach außen von einem Kiele begrenzt wird, durch sehr kleine, einfache Augen an Stelle der Netzaugen, oder gänzlichen Mangel derselben, und endlich durch die meist zweizähligen Fußklauen. *Bates* gibt in seinem »Naturforscher am Amazonenstrome« höchst interessante Einzelheiten über das Leben dieser von den Eingeborenen »*Touóca*« genannten Tiere, welche wir den folgenden Mitteilungen zu Grunde legen. Die *Ecitons* ziehen alle in Scharen auf Raub aus und werden dabei von einer Fliege (*Stylogaster*) begleitet, welche in zitternder Flügelbewegung einen Fuß hoch, oder niedriger über ihren Scharen schwebt, sich plötzlich herablässt, wahrscheinlich um mittels ihrer langen Legeröhre ein Ei bei den von den Ameisen fortgeschleppten Larven unterzubringen. Beinahe jede Art hat ihre Eigentümlichkeiten, wie und wo sie in geordneten Heerscharen aufmarschiert, und auch diejenigen, welche diese zusammensetzen, sind nicht gleich. Man unterscheidet sehr wohl zwischen großköpfigen und kleinköpfigen Arbeitern, welche aber nur bei einigen Arten (*Eciton hamatum*, *erraticum*, *vastator*) durch andere Bildung der Kinnbacken beweisen, daß beide nicht zu gleicher Arbeit befähigt sind; in den meisten anderen Fällen finden sich Übergänge in der Körpergröße, und *Bates* konnte keinen Unterschied in den Verrichtungen der Groß- und Kleinköpfigen wahrnehmen. *Eciton rapax*, der Riese der Gattung, insofern bis dreizehn Millimeter große Arbeiter vorkommen, durchzieht in nur schwachen Kolonnen den Wald und scheint hauptsächlich die Nester einer *Formica*-Art zu plündern, wenigstens fanden sich häufig verstümmelte Körper derselben auf ihren Wegen. - Auch bei einer zweiten Art, *Eciton legionis*, welche bedeutend kleiner ist und sich in dieser Beziehung wie in Farbe wenig von unserer europäischen roten Knotenameise (*Myrmica rubra*) unterscheidet, teilen sich die beiden Arbeiterformen nicht in die Geschäfte, wenigstens betragen sie sich auf den Zügen ganz gleich. Diese wurden von *Bates* auf den sandigen Campos von *Santarem* selten gesehen, aber umso besser beobachtet, weil das Dickicht die Aussicht nicht versperrte. Die Heere bestehen aus vielen Tausenden, welche sich in breiten Kolonnen vorwärts bewegen; werden sie dabei gestört, so greifen sie den eindringenden Gegenstand mit derselben Wut an, wie die anderen Arten. Bei einer Gelegenheit gruben sie am Hange eines Hügels in die lockere Erde Minen bis zu 26,2 Zentimeter Tiefe, um dicke Ameisen (*Formica*) herauszuholen. Die vereinten Kräfte verdoppelten und verdreifachten den Eifer, mit welchem sie die Beute vorzogen und in Stücke zerrissen. Der Beobachter wünschte einige der angefallenen Ameisen zu sammeln und grub danach; das war jenen aber gerade recht, in ihrem Eifer nahmen sie ihm dieselben unter den Händen fort, und es kostete *Bates* wahre Mühe, einige unverletzte Stücke in Sicherheit zu bringen. Beim Anlegen der Minen, welche den Räubern den Weg zum Raube bahnen sollten, schienen die kleinen Arbeiter in verschiedene

Abteilungen geteilt zu sein, indem die einen gruben, die anderen die Erdteilchen entfernten. Als sie tiefer eingedrungen waren und die Schwierigkeiten der Arbeit zunahmen, wurde der Handlangerdienst eingerichtet: den von unten Heraufkommenden nahmen die Kameraden, welche sie schon oben am Rande erwarteten, die Bürde ab und trugen sie weiter. Auch vertauschten sie bisweilen ihre Rollen, die Schachtarbeiter blieben draußen und jene fuhren ein, um die Erde bis zum Rande zu fördern. Sobald aber erst die Beute sichtbar wurde, griff alles zu, zauste und zerrte nach allen Richtungen, alles schleppte fort, so viel die Kräfte erlaubten und marschierte damit den Abhang hinunter. Nach zwei Stunden waren die Nester so ziemlich ausgenommen, und in einzelnen Zügen bewegten sich die Sieger den Hügel hinab, trafen aber alle unten wieder in geschlossener Kolonne zusammen, welche sich sechzig bis siebzig Schritte weit erstreckte und an einem steinharten Hügelchen ihr Ende erreichte. An diesem ging der Strom hinauf. Viele, die bis dahin leer mitgelaufen waren, halfen nun ihren Kameraden die schwere Bürde hinaufschaffen, und allmählich verschwand die Gesellschaft durch einen oberen Eingang in die Tiefe des Baues.

Zwei andere sehr gemeine Arten (*Eciton hamatum* und *drepanophorum*) sind sich so ähnlich, daß eine genaue Untersuchung nötig wird, um sie unterscheiden zu können; aber nie untermischt, stets getrennt ziehen die gedrängten Scharen zu Tausenden in den Uferwäldern des Amazonenstromes einher. Die Größe der Ameisen ein und derselben Gesellschaft ist ungewein schwankend, man kann Zwerge von ein Fünftel Zoll neben einen halben Zoll langen großköpfigen mit ungeheuren Kiefern hinwandeln sehen. Ehe ein Fußgänger auf einen Zug solcher Ameisen trifft, wird er durch das Zwitschern und das unruhige Umherflattern eines kleinen Schwarmes einfarbiger Vögel, der Ameisendrossel, im Dickicht aufmerksam gemacht. Geht er ungeachtet dieser Warnung noch einige Schritte vorwärts, so fühlt er sich mit einem Male von diesen kleinen Räubern angefallen, welche scharenweise mit unglaublicher Schnelligkeit an seinen Beinen in die Höhe kriechen, ihre Zangen in die Haut einschlagen, auf diese Weise Anhalt gewinnend, die Hinterleibsspitze nach vorn biegen und mit aller Kraft stechen. Es bleibt dann nichts anderes übrig, als schleunigst nach dem anderen Ende der Kolonne zu entfliehen. Die Bestien haben sich so verbissen, daß man sie beim Abnehmen zerreißt und der Kopf an der Wunde sitzen bleibt. Auf den unglücklichen Wanderer war es ursprünglich nicht abgesehen, er kam den im Dickicht ihr Unwesen treibenden Ameisen nur zu nahe, die überall Schrecken und Aufregung verbreiten, wo sie ihre Straße ziehen. Vorzüglich haben die ungeflügelten Kerfe, Spinnen, andere Ameisen, Maden, Raupen, Asseln und andere alle Ursache, sich vor ihnen zu fürchten. Die *Ecitons* steigen nicht hoch an den Bäumen hinauf und belästigen die Vogelnester daher wenig. *Bates* meint folgende Angriffsweise verbürgen zu können: Die Hauptkolonne, vier bis sechs neben einander, rückt in einer gegebenen Richtung vor, den Boden von allen tierischen Stoffen reinigend, gleichviel ob lebendig oder tot, wobei sie hier und da eine kleine Seitenkolonne absenden, welche an den Flanken der Hauptarmee furagiert und dann wieder in den Hauptzug eintritt. Wenn irgendwo in der Nähe der Marschlinie eine besonders günstige Stelle entdeckt wird, wie etwa ein Haufe verwesenden Holzes, in dem sich viele Insektenlarven aufhalten, so wird Halt gemacht, und ein starkes Heer sammelt sich an dieser Stelle. Die wütenden Geschöpfe durchsuchen nun jede Spalte und reißen alle großen Larven, welche sie an das Tageslicht bringen, in Stücke. Interessant ist es, wie sie die Wespennester ausplündern, welche sie manchmal an niedrigen Sträuchern antreffen. Sie nagen die papiernen Deckel von den Zellen, um zu Larven, Puppen oder schon entwickelten Wespen zu gelangen, und reißen alles in Fetzen, ohne Rücksicht zu nehmen auf die beleidigten Inhaber und natürlichen Wächter des Baues. Die Heere marschieren nie weit auf einem **betretenen** Wege, trotzdem ist ihnen *Bates* manchmal halbe Meilen weit nachgegangen, hat aber nie ein Nest aufgefunden. Einst beobachtete er einen Zug, welcher eine schmale offene Stelle überschritt und etwa eine Länge von sechzig bis siebzig Schritte hatte, ohne daß man weder Vortrab, noch Nachhut sehen konnte. Alle bewegten sich in einer Richtung bis auf einige an der Außenseite des Zuges, welche eine kleine Strecke rückwärts gingen, dann aber wieder

vorwärts mit dem Strome; diese Bewegung nach hinten setzte sich aber in gleicher Weise an der ganzen Außenseite fort, und dies schien eine Vorsichtsmaßregel zu sein, um den Zug zusammenzuhalten; denn die Flankenläufer blieben häufig einen Augenblick stehen und berührten einen und den anderen ihrer Kameraden in der Kolonne mit den Fühlern, um irgend eine Mitteilung zu machen. Wenn *Bates* den Zug störte, so wurde diese Störung bis zur Entfernung von mehreren Schritten den übrigen mitgeteilt, und der Zug fing an, sich bis zu diesem Punkte rückwärts zu bewegen. Alle kleinen Arbeiter trugen ein Bündel weißer Maden zwischen ihren Kinnbacken, welche anfangs für ihre Brut gehalten wurden, sich aber nach späteren Erfahrungen als Raub auswiesen. Besonders merkwürdig nahmen sich in diesem Zuge die großköpfigen Arbeiter aus, von denen etwa einer auf ein Dutzend der kleinen kam, und deren keiner etwas trug, sondern alle liefen leer und außerhalb des Zuges in ziemlich regelmäßigen Zwischenräumen voneinander. Diese Beobachtung wurde dadurch besonders erleichtert, daß ihre großen, weitglänzenden Köpfe beim Marsche über kleine Unebenheiten vor den anderen auf- und abwogend hervorsahen. Daß sie die Verteidigung der anderen übernommen hätten, wie man nach der ihnen gegebenen Benennung »Soldaten« erwarten müßte, konnte nicht bemerkt werden; der Bau ihrer Kinnbacken verbietet ihnen übrigens auch, sich in einen Feind einzubeißen. *Bates* sah die *Ecitons* sich im Sonnenscheine auch tummeln, gegenseitig belecken und putzen und auf diese Weise von der Arbeit ausruhen.

*Bar* hatte Gelegenheit in Guayana, nahe beim Sinnamaryflusse, die Kreuzung zweier Ameisenzüge zu beobachten, von denen der eine aus der sogenannten **Padicour-Ameise** (angeblich *Eciton canadense Ltr.*), der andere aus der **Visitenameise** gebildet wurde. Jene waren auf der Wanderschaft begriffen, diese nur bei ihrer täglichen Beschäftigung, Blätter von den Bäumen zu schneiden, und gingen beladen und leer geschäftig hin und her. Die *Ecitons* hatten einen Kanal gefunden, der von einem Stück Holz gebildet wurde, die *Visitenameisen* gingen unter demselben weg und alles war in bester Ordnung. Wir setzten uns nieder, um das Benehmen dieser beiden so verschiedenen Arten zu beobachten, die in uns die Vorstellung zweier ganz verschieden gebildeter Menschenklassen hervorriefen. Auf Seiten der *Visitenameisen* war große Kraft; gewisse von ihnen wandelten daher, schwer beladen mit Blattstückchen, die zehnmal größer als sie selbst waren, wobei sie sich oft an Hindernisse im Wege stießen und zuweilen umpurzelten; immer aber erhoben sie sich wieder und setzten ihren Weg ruhig fort, ohne ihre Last loszulassen. Nichts war in der Tat bewundernswürdiger, als die wirklich gewissenhafte Art, mit welcher diese Ameisen ihre mühevollen Bestimmung erfüllten. Bei den anderen herrschte eine Lebhaftigkeit, Geschicklichkeit, Umsicht, welche wir aus dem häufigen Tasten mit den Fühlern erkannten; zahlreiche Ameisen, die einen an die anderen geklammert, füllten die zu tiefen Höhlen aus und glätteten den Weg. Ein boshafter Gedanke kam uns in den Sinn; wir nahmen das Stück Holz weg, auf dem die *Ecitons* herumspazierten. - Große Verwirrung! Die Individuen mit den großen Kinnbacken, welche eine Art von Ansehen zu genießen schienen, drehen sich von einem Rande zum anderen, gehen, kommen; die anderen halten an vor dem Hindernisse, welches ihnen die *Visitenameisen* bereiten. Aber, o Glück, man bemerkt einige Zentimeter entfernt ein Stück Holz, so dick wie eine Federspule; man benutzt es; es ist zu dünn, der Steg zu schmal. Aber dieses Hindernis dauert nicht lange: eine, zwei, zwanzig, fünfzig Ameisen umklammern sich von jeder Seite in zwei Reihen, der Weg ist breiter geworden, die Kolonne überschreitet diese lebende Brücke, lange Zeit ohne Zweifel, denn die Minuten zählten wir nicht, ohne daß die unerschrockenen Pontoniere müde erschienen wären. Wir zerstörten diese neue Brücke, um zu sehen, wie weit der Muth und die Umsicht der einen sowie die Ausdauer und Hartnäckigkeit der anderen gehen würde. Neue Verwirrung! Leider gab es kein anderes Stück Holz in der Nähe, um die Brücke zu ersetzen. Die Verwirrung wird immer größer. Eine zusammengeballte Menge *Ecitons* hält an vor der Schar der *Oecodoma*, welche sie, auf die Gefahr hin, abgeschnitten zu werden, passieren müssen. Hierzu sind sie schnell entschlossen. Dreißig oder mehr machen einen Einfall - die Unordnung erreicht ihren höchsten Gipfel. Die dicksten *Oecodoma*, welche durch ihre mächtigen

Lasten stärker waren, setzten ihren Weg fort, aber die kleinsten wurden über den Haufen geworfen. Obgleich umgestürzt, bilden sie immer noch ein Hindernis. Plötzlich, wie auf ein gegebenes Zeichen, stürzt sich eine Menge der Ecitons über einen Raum von zwanzig bis dreißig Centimeter heran, klammert sich an der Erde mit den langen Beinen in mehreren Reihen an, andere kommen auf die ersten, bilden ein zweites, dann ein drittes Stockwerk und zugleich sind zwei Mauern in einem Abstände von 5 bis 6 Centimeter aufgebaut. Dann geht die Kolonne im Triumph hinüber, während sich die Visitenameisen nach allen Richtungen zerstreuen, ohne sich wieder sammeln zu können. Wir hatten ein Schauspiel vor Augen, das für einen Beobachter erhaben ist, und unsere Freude übertraf alles, was man denken kann. Ohne daß wir es gemerkt, waren die Stunden verronnen, und mit Staunen bemerkten wir, daß nicht nur die Sonne für die Bewohner von Guayana am Ende ihrer Bahn angelangt war, sondern auch, daß dichte Wolken den Himmel überzogen und mit einem Regengusse drohten. In wenigen Minuten jagte auch wirklich ein heftiger Regenguss die Beobachter und die Ameisen in die Flucht. Es war Nacht, als wir unseren Schoner erreichten.



Visitenameise (*Oecodoma cephalotes*). a Männchen, b Weibchen, kleine und große Arbeiter; alle in natürlicher Größe.

Die **Zug-** oder **Visitenameise**, **Mandioc-Ameise** (*Oecodoma cephalotes*), in ganz Südamerika unter dem Namen *Sauba* bekannt und gefürchtet, weil sie meist die wertvollsten angepflanzten Bäume ihres Laubes beraubt und in Gegenden, wo sie in ungeheuren Massen vorkommt, den Ackerbau beinahe unmöglich macht. Den Indianern gelten übrigens die mit Eiern angefüllten Leiber der Weibchen als größter Leckerbissen; man beißt sie ab und ißt Salz dazwischen. Gibt es eine reiche Ernte, so werden sie mit Salz geröstet und sollen in dieser Form auch den Europäern munden.

Die Sitten dieser Ameisen stimmen in vieler Beziehung mit den oben geschilderten der europäischen überein. Sie bauen, wenn nicht sehr hohe, doch sehr umfangreiche Hügel in den Pflanzungen und Gehölzen. *Bates* gibt vierzig Schritte im Umfange und 62,8 Centimeter Höhe an, andere Reisende sprechen von hundertachtundachtzig und zweihunderteinundfünfzig Zentimeter. Diese Dome bilden nur die äußere Bedeckung eines tief und weit im Boden verbreiteten Gangnetzes mit vielen Öffnungen nach außen, welche für gewöhnlich geschlossen sind. Bei den mancherlei Versuchen, die *Sauba* aus den botanischen Gärten von Para zu vertreiben, wurde über einigen Haupteingängen zu ihrer Kolonie Feuer angezündet und durch Blasebälge Schwefeldämpfe eingeführt. *Bates* sah aus einer Menge von Öffnungen die Dämpfe ausströmen, unter denen eine siebzig Schritte von der Einführungsstelle entfernt war. Die Hügel bestehen aus lockerer Erde, welche aus der Tiefe herausgeschafft wird und darum

wohl etwas anders gefärbt erscheint, als die Umgebung. Ferner schwärmen die Kolonien genau in derselben Weise wie die unserigen gegen Abend, und zwar zu Beginn der Regenzeit im Januar und Februar. Die Sorge für die Brut bleibt den Arbeitern überlassen, welche in der Größe zwischen 4,5 und 15 Millimeter schwanken und von **dreierlei** Formen sein sollen: die eigentlichen Arbeiter sind die kleinsten, mit kleinen Köpfen, und die großköpfigen zerfallen wieder in solche mit glänzenden kahlen Köpfen und in die unterirdischen Arbeiter, bei denen dieselben vorn behaart sind und auf dem Scheitel Nebenaugen tragen, welche jenen fehlen. *Bates* äußert sich über ihren Körperbau nicht völlig klar und sagt von ihnen dann weiter: »Wenn man die Spitze eines kleinen, frisch aufgeworfenen Ameisenhaufens, in welchem eben der Prozess des Deckens vor sich geht, abnimmt, so kommt ein breiter, zylindrischer Schacht zum Vorschein, bis zur Tiefe von 62,8 Zentimeter von der Oberfläche. Untersucht man diesen mit einem Stocke, was bis zur Tiefe von etwa vierundneunzig bis hunderfünfundzwanzig Zentimeter geschehen kann, ohne daß man auf den Grund stößt, so beginnt eine kleine Anzahl dieser derben Burschen langsam an den glatten Seiten der Mine empor zu klettern. - Sie waren nicht sehr kampflustig, wie ich fürchtete, und ich sah sie nie unter anderen Umständen, als den eben erzählten, kann daher auch nicht erraten, worin ihre spezielle Beschäftigung bestehen mag«.

Die kleinen Arbeiter und die großen mit den glatten und glänzenden Köpfen, welche wir hier dargestellt sehen, die Soldaten, wie sie gewöhnlich genannt werden, obschon auch sie die Verteidigung der kleinen nicht übernehmen, zeigen sich außerhalb des Baues und werden in doppelter Hinsicht für die Bewohner jener Gegenden höchst unangenehm. Der eine Punkt wurde bereits erwähnt und betrifft vorzugsweise die angepflanzten Kaffee- und Orangenbäume. In großen Scharen kommen sie gezogen, die kleinen erklettern einen Baum, jede setzt sich auf ein Blatt und schneidet mit ihren gezähnten Kinnbacken eine Scheibe von der Größe eines Groschenstückes aus der Fläche aus, faßt das Stück mit ihren Zangen, reißt es gewaltsam ab und verläßt damit den Baum. Manchmal fällt dieses herunter und wird dann von einer anderen Ameise ergriffen. Sie marschieren damit, das Stück senkrecht nach oben an seinem unteren Rande zwischen den Zangen haltend, nach Hause und gewähren dabei einen sehr eigentümlichen Anblick, der ihnen auch den Namen **Sonnenschirmameisen** eingetragen hat. Die Straße, welche sie fortwährend ziehen, bekommt bald das Ansehen eines Wagengeleises im Laube. Nur selten wählen die Tiere die Blätter einheimischer Waldbäume. Wozu dienen ihnen aber Blattstücke? Untermischt mit Erdkrümchen aus der Tiefe überwölben sie mit ihnen die 10,5 bis 13 Zentimeter im Durchmesser haltenden Tunnel ihrer Wohnungen und vorzugsweise deren Eingänge.

Eine zweite Untugend dieser Ameisen besteht in den nächtlichen Besuchen, welche sie den Häusern abstatten, um alles zu plündern, was sie an süßen Stoffen für sich verwerten können. Wenn von ihnen erzählt wird, daß sie die menschlichen Wohnungen von lästigen Kerfen befreien und sie somit mehr als Wohltäter erscheinen, so dürfte dies auf einem Irrtume beruhen. Daß sie, ohne eigentliche Raubameisen zu sein, auch Insekten fressen und besonders deren Saft lecken, unterliegt wohl keinem Zweifel, aber der Vorteil, welchen sie dadurch den menschlichen Wohnungen angedeihen lassen, wird gewiß sehr überwogen durch andere Nachteile in ihrem Gefolge. Sie sind nächtliche Tiere, als solche während der Nacht tätiger als am Tage und fühlen sich zu jener Zeit in der Nähe der Menschen überdies sicherer. *Bates*, welcher anfangs den Behauptungen der dortigen Einwohner keinen Glauben schenken mochte, daß die in Rede stehenden Ameisen bei Nacht in die Häuser kämen, um die Körnchen des Farinha- oder Mandioca-Mehles, das Brod der niederen Klassen in Brasilien, fortzuschleppen, konnte sich bei seinem späteren Aufenthalte in einem Dorfe selbst von der Wahrheit dieser Aussagen überzeugen. Eines Nachts wird er von seinem Diener geweckt und benachrichtigt, daß Ratten an den Farinhakörben nagten. Bei näherer Untersuchung fand sich eine Kolonne von vielen tausenden unserer Ameisen. Die Körbe mit dem genannten Mehle

standen auf einem hohen Tische und waren über und über von ihnen bedeckt, das Zernagen der sie ausfütternden trockenen Blätter hatte das Geräusch hervorgebracht, und von den Abziehenden hatte jede sich mit einem Körnchen beladen, welches zuweilen größer und schwerer als das ganze Tier war. Der Versuch, mit vier Holzschuhen dazwischen zu schlagen und dadurch die Eindringlinge zu töten, erwies sich vollständig nutzlos; denn die unmittelbar nachdringenden Scharen ersetzten sofort die vernichteten. Die nächsten Nächte, in denen sie wieder erschienen, wurde Schießpulver auf ihrer Bahn angezündet, wodurch sie nach und nach doch eingeschüchtert sein mochten, denn sie blieben zuletzt weg. *Bates* bemerkt dabei, daß er sich nicht erklären könne, wozu sie die Mandiokkörner, welche viel Faserstoff und **keinen Kleber** enthalten, also als Zement nicht verwertet werden könnten, wohl brauchen möchten.

Die Visitenameisen sehen rot aus, die Arbeiter haben einen herzförmigen Kopf, an demselben hinten je einen Seitendorn, je einen der Stirnleisten etwas über den Fühlern; diese sind elfgliedrig, die dreieckigen Kinnbacken gezähnt, die Kiefertaster bestehen aus vier, die Lippentaster aus zwei Gliedern. Am Vorderrücken stehen zwei nach hinten gerichtete Seitendornen, am Hinterrücken desgleichen, dazwischen wenigstens Andeutungen davon. Der zweiknotige Stiel ist gekielt. Bei den sehr großen Weibchen ist der Kopf auf dem Scheitel schwächer ausgeschnitten, hinten über den Backen kürzer bedornt, die Stirnleisten, Fühler und ihre Gruben wie bei den Arbeitern gebildet, auch der Hinterrücken bedornt, aber etwas kürzer. Die Männchen endlich haben dreizehngliedrige Fühler, einen viel kleineren Kopf, welcher tief unten sitzt im Vergleiche zu dem buckelig erhobenen, anliegend gelb behaarten Mittelrücken, außerdem findet sich hier, wie beim anderen Geschlechte und den Arbeitern, über den Vorderhüften ein Zahn. Die Flügel der geschlechtlichen Ameisen haben eine geschlossene Randzelle, eine Unterrand- und eine Mittelzelle und färben sich nach dem Vorderrande hin gelblich. Die Körperformen sind aus den Abbildungen ersichtlich.

Andere Arten der Gattung *Oecodoma*, welche von *Atta* abgetrennt worden ist, unterscheiden sich durch mehr Dornen an Kopf, Mittelleib und Stielchen. Ich habe übrigens triftige Gründe, anzunehmen, daß unter der *Sauba* der Brasilier mehrere, zum Teil sehr ähnliche Arten der europäischen Kerfkenner begriffen sind.

Die Ameisen, von denen bis jetzt ungefähr eintausendzweihundertundfünfzig Arten beschrieben sind, welche sich jährlich noch mehren, seitdem die oben erwähnten Forscher und einige andere sich ihnen mit Vorliebe zugewendet haben, spielen entschieden eine wichtige Rolle im Haushalte der Natur. In den Gleicherländern, wo Moder und Verwesung einer üppigen Pflanzenwelt schneller auf dem Fuße nachfolgen als in den gemäßigten Erdstrichen, sind sie es hauptsächlich, welche das Zersetzungswerk beschleunigen und dem tierischen Körper nachteilige Gase nicht aufkommen lassen. Sie sind es, welche unter dem anderen Geziefer mächtig aufräumen und für natürliches Gleichgewicht Sorge tragen, was in unseren Gegenden mehr den Schlupfwespen überlassen zu sein scheint. Sie sind es, die wieder von vielen Vögeln, den Ameisenfressern, Gürtel- und anderen Tieren vorzugsweise als Nahrungsmittel aufgesucht werden, um nicht ihre Vernichtungen über gewisse Grenzen hinaus ausdehnen zu können. Wie lästig, ja wie schädlich sie dem Menschen werden, geht aus einzelnen Mitteilungen zur Genüge hervor, die von ihnen gegeben wurden und die leicht noch hätten vermehrt werden können; denn es gibt wohl keinen unter den in jenen Gegenden gereisten Naturforschern, welcher nicht über Ameisen zu klagen hätte, welcher nicht alle erdenklichen Kunstgriffe anwenden mußte, um seine Lebensmittel und seine erbeuteten Naturalien gegen die scharfen Zähne dieser zwar kleinen, aber durch Ausdauer und Menge sehr mächtigen Tiere zu schützen.“

(Brehms Thierleben, Vierte Abteilung - Wirbellose Thiere, 1. Band, 2. Auflage, Leipzig 1877, S. 253-272)

## Vergiftung / Poisoning



# Vergiftung / Poisoning

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1874 - A man was bitten by the Australian Black Ant - E. W. Berridge

### **1859 - Heftige Entzündung der Hand bei einem armen Manne - Dr. Herz**

"Eine gewiss seltene durch Ameisen bewirkte Krankheit war folgende: Ein armer Mann, der sich mitunter auch dadurch ernährte, dass er für die Apotheker zur Bereitung des *Spirit. formicarum* Ameisen sammelte, hatte im April 1851, um mit diesem Einsammeln schneller fertig zu werden, mit der bloßen Hand dieselbe in den bereit gehaltenen Topf eingescharrt und daraus pfotenweise in eine Bouteille gethan. Die Folge davon war, dass der ganze Handrücken und die innere Handfläche sich stark entzündeten, rot wurden und aufschwollen. Als der Mann zu mir kam, sass unter allen Nägeln bereits Eiter von oben bis unten, und am Zeigefinger war der Nagel bereits schon so losgelöst, dass er nur noch am unteren Teile anhing. Später ging es eben so an allen Fingern; alle Nägel lösten sich ab. Aufschläge von *Aq. saturni* beseitigten die Entzündung." (Ober-Med.-Rath. Dr. Herz)

(Beiträge zur medizinischen Kasuistik. Aus den Sanitätsberichten zusammengestellt von Dr. J. B. v. Franque, I. Heftige Entzündung durch Ameisen bewirkt, in: Medicinische Jahrbücher für das Herzogthum Nassau, 15. und 16. Heft, Wiesbaden 1859, S. 748-749)

### **1874 - A man was bitten by the Australian Black Ant - E. W. Berridge**

"Mr. - was bitten on wrist. In 4 hours, pink, flat, spreading swelling of bitten part with itching; the swelling increased so that it felt tender on bending wrist; when the swelling went up arm, bright red, like erysipelas, with itching; the swelling pitted on pressure, leaving a white indentation with a crimson areola; aching in wrist at this time. The swelling was relieved by warm bathing, and the itching by *Arnica*."

(E. W. Berridge, M.D., Fragmentary Provings, The New England Medical Gazette vol. 9 (1874), p. 402)

## Frühere Erfahrungen / Former Experiences



# Frühere Erfahrungen / Former Experiences

## Übersicht / Overview

An ancient remedy - Constantin Hering

Aqua Magnanimitatis - Samuel A. Jones

### An ancient remedy - Constantin Hering

"The name *Formica* was used by Linnaeus as a generic name for a large number of species, all of which appear to common people to be ants; later entomologists had to separate the species and arrange them under different names as different genera. Some of these have stings like the honey-bee and the wasp, etc.

The genus to which the old name *Formica* was left by Latreille is the one from which we have reports of cures, and from which we made our provings. Ants belonging to the genus *Formica*, as Latreille has it, when attacked defend themselves by biting with their mandibular or jaws (which they use like pincers from both sides), and bending at the same time their abdomen downward and forward, they eject from the anus a sharp sour fluid towards the place, which they tried to wound with their pincers.

Some of these ants build hills, in which they live in large communities; when their dwellings are disturbed they come to the surface in large numbers, and erecting the posterior part of their bodies, they eject their fluid into the air. If we go into the pine woods on a dry sunny day in summer and stir up an ant-hill with a stick, we can see this fluid ascend like a rising rain above the surface of the hill; at the same moment we observe an odor rising from it, which, to most people is pleasant, but if inhaled into the lungs it impedes breathing.

This fluid reddens Litmus paper, and contains the well-known *Formyl acid* (Formic or Formic acid),  $\text{CH}_2\text{O}_2$ , the history of which is one of the most interesting, and represents significantly all the periods of chemistry. We have a right to suppose that the use of the ant to heal the sick has been a very ancient one among the common people, but in the oldest medical books its use was not mentioned. *Eben Baithar* (d. 1248), the great collector of all that which the Arabian physicians before him had written about drugs, gives us the first notice of the *Formica*. See *Sontheimer's* Translation from the Arabian original, 1840-1842, vol. ii., p. 560. *Eben Baithar* gives an extract from *Elscherif*. *Elscherif Edrisi* (born 1099 after Christ) was the author of the famous *Geography of Nubia*, and a prince of the family of the *Edrisites*, ruling on the north coast of Africa, in *Fetz* and *Morocco*.

*Elscherif Edrisi* gives an opinion of one *Saduck*, an author not mentioned in the history of medicine from *Sprengel* down to *Isensee*: "that ants had been used externally in leprosy, and as an aphrodisiac, and to prevent the reproduction of hair in the axilla."

*Plinius*, the great collector in the first age after Christ, only speaks of the use of the so-called "eggs," the large grubs or cocoons (pupae), of their use in deafness, and when triturated with houseflies, to blacken the eyebrows! These grubs do not contain the *Formyl acid*.

*Plutarch* has been quoted as relating the circumstance that bears, when suffering with abdominal complaints, put their tongue first into honey, then into an ant-hill, and when covered with ants, they swallow them as a remedy.

1537. - *Brunswig's* book on distillations applies the water distilled from ants and their eggs for maculae of the eyes, and for membranaceous growths over the eyes.

*Felix Platerus*, Professor of Medicine in *Basel* (d. 1641), says the juice expressed from ants destroys maculae; forty ants swallowed in a drink, act aphrodisiacally, and he relates that the

winged ants (males and developed females) in oil, had the same effect. Other treatises have appeared on the use of ants, and the following quotations have been collected:

1615. - J. Wilde de Formica.

1631. - Adrian Myrsicht, in Mecklenburg, prepared an *oleum acusticum*.

1639. - W. van den Bossche, in his work on the use of animals in medicine, quotes only Plinius and Platerus.

1689. - S. G. Manitius, *Dissert. de chymica formicarum*.

1702. - B. Ewaldt de *formicarum usu in medicina*.

1710. - M. Fr. Lachner (1662-1720), a famous physician in Nueremberg, promised in *Eph. Nat. Cur. Dec. II., ann IIX. an opus de formicis*.

1737. - There appeared in Leipzig, Caspar Neumann: *vom gemeinen Salz, Weinstein, Salmiak und der Ameise*.

1740. - Lemerq used it in rheumatism, neuralgia, pleurisy and dropsy.

1739. - Zach. Plather (d. 1747), used honey boiled with ants for healing ulcers on the cornea.

1750. - Fr. Ch. Leper, in his *Insecto-theology*, speaks about the use of ants.

1768. - Wm. Lewis, *Natural History of the Materia Medica*, page 279, says: The medical qualities are not certainly known. It has been supposed that ants, infusion and distilled water of them, have an aphrodisiac virtue. The analysis (!) does not appear to afford much foundation for such a virtue. They are still retained in the *aqua magnanimitatis* and other like impositions in foreign pharmacopoeias.

1808. - Wendt gave ants in gravel, paralysis of the bladder, and scurvy and scrofulous skin diseases.

1819. - Th. Schreger, in *Ersch and Gruber's Encyclopaedia*, vol. iii., p. 340, collected many reports that said of the ants that they were "Mit Unrecht vernachlaessigt."

1832. - Vogt *Lehrbuch der Pharmacodynamik*, vol. ii., p. 340.

1838. - Sobernheim, *Handbuch der Practischen Arzneimittlehre*, says: Ants, locally applied in quantities, act as a rubefacient and even as a vesicans; internally, they are given for inveterate gout with morbid deposits, and for chronic rheumatism, especially for the paralysis emanating from that source.

In England, the *Formica*, as a remedy, has disappeared long ago, and in *Coxe's American Dispensatory*, even the acid is not mentioned. Pereira, too, did not think it worth while to mention it. In a very strange book, published in 1853, in Cambridge, by one P. P. Good, under the title *Materia Medica Animalia* (!), ants are omitted.

In the older drug stores of Germany there are kept several kinds of oil, but more on account of the people asking for it, than for the use of the physicians.

Besides the oil made by macerating ants (*Oleum ex infusione formicarum*), they have an *Oleum ovulorum formicae*, containing no Formyl acid, an ethereal oil distilled from the ants and "eggs." It is said that this oil dissolves Phosphorus, but does not shine in the dark when shaken, thus preventing the oxidation of the Phosphorus. The remains of the ants, after this oil has been distilled off, when put under the press, gives a fatty oil, in which Sulphur is dissolved. The refuse left in the bag after pressing out the oil, gives by dry distillation an *Oleum foetidum*, a mixture like the *Oleum Dippelii*. An old forgotten drug is the *Balsamum vel oleum acusticum Mynsichtii*. Many preparations, distilled from ants, have been in use. The *Aqua formicarum* had once a great fame, particularly as the *Aqua magnanimitatis*, a compound with spices of different kinds (Cinnamon, Caryophyllae, Cardamom, Cubebs, etc., are mentioned in the Pharmacopoeia of Wurtemberg, and in the Parisian Codex, by Ducrot, 1823). It was ordered expressly in paralysis and gout; internally in apoplexy as uropoetic and aphrodisiac.

The pure *Spiritus formicarum* has even in our time been acknowledged as an adopted drug in the Pharmacopoeia Borussica, in which it is ordered to take the fully developed workers of the

formica rufa, collected alive, take two pounds of ants to four pounds of strong alcohol, add some water and distil until it gives four pounds of the spirit. It must be clear, must have a pleasant acidulous odor, somewhat pungent, and of a sour burning taste; water added to it makes it a little cloudy. Some other Pharmacopoeias differ a little in their prescriptions, and call it *Alcohol formicarum distillatum*.

Eschenmeyer says in his *Organic Chemistry*: "The spiritus formicarum is nothing but a solution of the Formyl acid in alcohol." But there is always an essential oil with it, and often traces of decomposed animal matter. It is mostly used externally as an irritant in lameness, atrophy of the spinal marrow, rheumatism, etc. In the Pharmacopoeia Saxonica we find another preparation adopted, similar to our Hahnemannian tinctures: One pound of living ants with two pounds of alcohol rectified, and two pounds, of water, digested several days and filtered off as the clear brown *Tinctura formicarum*; water added makes it milky. Others take to one pound of ants only three pounds of alcohol, but no water. This tincture contains much animal matter not required, and less of the Formyl acid. A bottle with some alcohol on a sunny day in midsummer buried in an ant-hill surrounded by some cloth over which the ants can easily climb, arranged so that the eager workers have to fall in, will secure a tincture with a great deal more Formyl acid. It might be filled up afterwards in an adopted proportion of 100 ants to a drachm of alcohol, and poured off clean.

We still find that ants are used all over the world as a domestic remedy by the people. The Russians bring the ants into a bag large enough to give room to the paralyzed limb, put the limb in the bag and tie it firmly to prevent the escape of the ants. This produces violent itching and burning, electric jerks in the suffering part, and general sweat. The third or fourth day they take it off, give a day's rest, and then renew it.

In Germany, they put a piece of linen in an ant-hill over night, and use it to wrap around the suffering parts. Others put a coarse shirt in the ant-hill and wear it afterwards.

A highly recommended preparation is: Put a lump of sugar in a wooden box with holes, set it on an ant-hill, securing it by a string, and use the remaining sugar a day or two afterwards, to make a syrup of it.

Crushed and mashed ants are also used as a poultice, or the juice is pressed and applied externally, or given internally.

Some people collect ants in a bottle with oil and macerate them in the sun.

They are also used dried or rubbed to a powder, one or two grains to a dose.

The most common and popular way of applying ants is to shovel an ant-hill into a bag, pour boiling water over it, and use this in a bath, or let only the steam surround the diseased limb or body.

An old nostrum, known all over the world as the *Haarlem-oil*, is said to have been made from a solution of one part of sulphur in four parts linseed-oil, adding afterwards to one part of this balsam three parts of oil of turpentine (Pharmacopoeia Hannover); but experienced pharmacutists allow that the genuine oil acts differently from this imitation, and that the people find it out. It may be the fatty oil of ants is used to dissolve the sulphur, as it is mentioned above, as the effects agree somewhat with it, and the turpentine may also contain Formyl acid.

A score of years ago a peculiar invention was made by a Quack, on the Rhine, consisting in the pricking of the skin by a bundle of needles, and afterwards rubbing on oil into it, which causes a slight eruption. Like all such one-sided specialties, it was overdone, and thus came in discredit even with the common people. The oil sold as a nostrum was supposed by physicians to contain Croton oil; but all the symptoms produced by the genuine oil, and all the

cases reported as cured by it, agree with the effects of the Formyl acid, if taken from insects, and did not in the least agree with well-known effects of Croton oil. In the hands of a physician, oil with ants, used externally, may be of great use, but of course only in cases indicated by its symptoms."

(Formica, by Constantin Hering, M.D., Philadelphia, The North American Journal of Homoeopathy vol. 20 (1872), p. 12-17)

### **Aqua Magnanimitatis - Samuel A. Jones**

"Some two hundred and fifty years ago John French, Doctor of Physick in the realm of Great Britain, committed to the press of Richard Cotes the painfully written (and in that day "painfully written" meant pains-takingly written) manuscript of a learned book bearing the following exuberant title: "The Art of *Distillation*, or a Treatise of the *choicest Spagyrical Preparations* performed by way of Distillation, being partly taken out of the most *select Chymicall Authors of severall languages*, and partly taken out of the Author's manuell Experience; Together with The Description of the *chiefest Furnaces and Vessels* used by the Ancient, and *Moderne Chymists*: Also A Discourse of divers *Spagyrical Experiments and Curiosities*, and of the *Anatomy of Gold and Silver*, with the chiefest *Preparations and Curiosities* thereof, and *Vertues* of them all."

These words which I have put into italic dress Richard Cotes, duly instructed by Dr. John French, printed in red ink, which shineth to-day on the time-stained paper and maketh a piebald page, as a glance thereon will testify to the most incredulous reader hereof.

But our present concern is with p. 199 of Book 4, whereon is to be found the following:

#### **"Kunrath's Famous Water, Called Aqua Magnanimitatis."**

"Take of Pismires, or Ants (the biggest, that have the sowrish smell, are the best), two hand-fuls, spirit of Wine a Gallon, digest them in a Glass vessel close shut, the space of a month, in which time they will be dissolved into a Liquor, then distill them in *Balneo*, till all be dry. Then put the same quantity of Ants as before, digest, and distill them in the same Liquor as before: doe this three times, then aromatize the Spirit with some Cinnamon.

"Note that upon the Spirit will float an Oil, which must be separated. This spirit is of so excellent use to stir up the Animall Spirit in so much that John Casmire, Palse-grave of the Rhene and Seyfrie of Collen Generall against the Turks did always drinke of it when they went to fight, to increase Magnanimity and Courage, which it did even to admiration.

"This spirit doth also wonderfully irritate them that are slothful to Venery.

"It also provoketh urine even to admiration. It doth also wonderfully irritate the Spirits that are dulled, and deaded with any cold distemper.

"This Oil doth have the same effects, and indeed more powerfully. This Oil doth, besides what is spoken of the Spirit, help deafness exceedingly, two or three drops being dropped into the Ear, after it is well syringed, once in a day, for a week together.

"It also helpeth the Eyes that have film growing on them, being now and then dropped into them."

Now, turn, please, to Allen's Encyclopedia, *Sub voce* "Formica Rufa", and read the prover's evidence:

"Mind unusually excited," is one report. "An exhilarated condition, like that produced by drinking champagne." Make a note of that, please. "All day very happy and inclined to be jolly." "During the day remarkably happy and able to study; everything seems easy to be

accomplished."

Here are three different witnesses in the nineteenth century, and all in full accord with John Casimir, Palgrave of the Rhine, and Seyfried, of Cologne, as to the statement that the "spirit" of the species *Formica Rufa* can be used "to stir up the animal Spirit."

Hering, whom nothing escaped, gives us, "Exhilarated condition after pain in the vertex had abated." Hering also gives, as a symptom derived *ab usu in morbis*, "Indisposed, forgetful, morose, fearful and apprehensive." Ah! that is not in the proving, says some ardent "purifier" of our *Materia Medica*. True, my carper, but it is most assuredly the *physiological oscillation of the other end of the arc*, without the arc were incomplete; and it is an instance, wherein Hering's knowledge arraigns your ignorance. Hering, in his quiet way, was up to such tricks. We have more than one exhibition of his insight. For instance, he gives us as a clinical symptom derived from cures, "Want of memory; forgetful in the evening." Now does not one prover in the *Encyclopedia* record this: "*During the day* remarkably happy and able to study?" Couple this statement of time with Hering's finding in a patient, having other symptoms of *Rufa*, "forgetful *in the evening*." How true it is that we can see only that which we have learned to see. Yours is a pitiful hemiopia; you can't see the whole of anything; you discern only the left half of the face, while the distinguishing mole is on the right half. You declare that what you can't see, therefore, is not there!

Moreover, let such as are "slothful to Venery" turn to the *Encyclopedia* again, *Formica Rufa*, symptoms 163 and 166, and learn how homoeopathically the "Spirit" of the busy ant promises to correct such shameful indolence. Now open Hering's "Guiding Symptoms," Vol. V, p. 347. Clinical symptoms again: It, this same "Spirit" and potentized at that, has cured "Seminal emissions." "Weakness of sexual organs." (isn't it hard to kick against the pricks!)

"It provoketh urine even to admiration," says Dr. John French, and, lo!, one of the modern provers record this: "Double the quantity of urine, even at night (third day); increased for two or three days" - surely, an increase "even to admiration;" and, dear reader, in those days to *admire* meant to wonder.

As for deafness, we have no direct hint in the *Encyclopedia*, but following other symptoms indicating *Rufa*, Hering has cured "Difficult hearing; deafness" with this remedy.

"It also helpeth the eyes that have the film growing over them," avereth Dr. John French; and, sure enough! one of our modern provers says: "Appearance when looking at objects as if seen through mist." Clinically, Hering records: "Dimness of sight." "Nebula; leucoma; pterygium."

Really, thou that wert John French, it seemeth unto me that thou didst testify to the truth in thine "Art of Distillation;" and at no distant day I will reprint thine "Anatomy of Gold" for modern eyes to read. "But, thou that wert John French hast met thy revered Master in the Beyond? By the term "anatomy of gold" I know thou wert a Paracelsian; hast met him *There?*

How many moderns will know what the "anatomy of gold" means? Paracelsus "uses common words in new signification without giving any indication of the change which he introduced. Thus *anatomy*, in the writings of Paracelsus, signifies not the dissection of dead animals to determine their structure, but it means the nature, force and magical designation of a thing!"<sup>(1)</sup> Then, reader, keep an eye open for Dr. French's "anatomy of gold" - it will make a neat little addendum to Dr. Burnett's instructive booklet on the metal that peoples Perdition by the lust for it."

(1) Thomson's History of Chemistry, Vol. I, p. 151. Edinburgh 1830.

(Samuel A. Jones, A Fragment in re *Formica rufa*, The Homoeopathic Recorder vol. 13 (1898), p. 193-196)

## Prüfungen / Provings



Galaxy Pub. Co. Philad.

Adolph Lippe (1812-1888)

# Prüfungen / Provings

## Übersicht / Overview

### Prüfungen / Provings

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- 1856 - Provings of Spiritus Formicarum - Constantin Hering
- 1857 - Proving of Formica rufa - Miss B.
- 1864 - Provings of Formica rufa - Adolph Lippe
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- 1864 - Provings of Formica subsericea - Adolph Lippe
- 1892 - Provings and Clinical Observations with High Potencies - Malcolm Macfarlan
- 1933 - Prüfung von Acidum formicum - Dr. Kiermayr

### Symptom Register

- 1873 - Constantin Hering
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## 1855 - Proving of Formic Ether - Constantin Hering

"Formic ether, Ethyl formiate of Miller. - Prepared according to Doebereiner.

1855, November. 23. - After inhaling, dulness of the head and pressure on both sides between the temples and ears.

Small, but violent prickling, pressing stitches, particularly in the region of the right nipple, as from nettles, but without the long continued sensation of an after-burning; after a while the same on the left side of the back and much more violent; still later the same sensation on other parts of the body. After thirty minutes a cold feeling in the fauces and throat, as from mint-drops, and his mind unusually excited.

After one hour pain in the left ear, subsequently also in the right, but not so severe.

Severe pain in the middle of the left upper arm, like a pinching with dull wooden pincers, coming at intervals and lasting half an hour.

Subsequently very similar pains on various parts of the body lower down.

A cool burning in the eyes, as though snowflakes were falling on the conjunctiva and cornea.

Sneezing and fluent coryza followed by a severe pain in the vertex, like a stitch from a dull instrument, a little to the left of the middle, near 9 p. m. The coryza lasted but fifteen minutes, the pain longer.

An exhilarated condition, almost like that produced by champagne, began after the pain in the vertex had somewhat abated, and continued until after 9 a. m. At the same time a cold feeling inwardly when inhaling (as from mint). Soon after he has similar pressing pains in the left side of the neck, sometimes a kind of itching or burning there.

Here and there on the skin a pressing burning sensation on small, but not sharply defined places.

After 9 o'clock hunger (something quite unusual at this time), then pain below the knees and in the shins. (20 m. after 9.)

Small, very fetid flatus, almost putrid (had eaten for dinner only barley soup and beef).

At half-past nine a burning itching in the bend of the left knee, which increased to an

extraordinary degree.

The same sensation, which is neither an itching nor a burning, nor a pressure, but a union of the three, on many different parts of the body, now here, now there.

All the evening a sensation as though diarrhoea would set in; this sensation is, however, only in the anus.

After eating some water soup, made from scalded rye bread with cream, he all at once becomes very sleepy and falls asleep in his chair; on awaking, does not as usual feel refreshed, but goes immediately to bed and falls asleep at once.

On ascending the staircase leading to his chamber, he feels that the sexual parts have gone to sleep.

He is disturbed several times during the night by the restlessness of the children, but each time he falls easily asleep again, which is very unusual; in the morning he is dull, feels heavy and bruised. During the morning hours difficult passage of small quantities of flatus, afterwards diarrhoea-like urging in the rectum.

For several days in succession burning stitches in the finger ends, first in the left hand, and worse in the evening, then on the right hand, and worse in the morning, the middle finger most affected. (Nov. 29.)

Dec. 23d. - Repeated olfaction.

Immediately very violent penetrating itching at the right nipple.

When riding in his carriage a sensation in both arms and hands, as if they had gone to sleep, more in the hands.

Severe pain above the right elbow, inwardly on the inner side, increasing in intensity in the direction of the upper arm."

(Formica, by Constantin Hering, M.D., Philadelphia, The North American Journal of Homoeopathy vol. 20 (1872), p. 22-24)

### **1856 - Proving of Formyl Acid - Constantin Hering**

"Prepared according to Doebereiner and Liebig, from starch, black oxide of manganese, sulphuric acid, and water.

1856, September 17, in the forenoon. - Obligated to smell and inhale it, found it similar to that of concentrated Acetic acid, smelled some time ago, and dissimilar to the smell of the Fluoric acid inhaled several years ago.

Immediately had a feeling of discomfort and felt very badly all day.

Indisposed, forgetful, very sleepy and tired in the evening, unusually affected on hearing bad news of some threatening evil.

All the evening morose and disinclined to work, fearful and apprehensive.

Finally, with much yawning, a sensation as if diarrhoea would set in, followed by a regular stool, the last part of which was thinner, having a very peculiar smell, known to the prover, but he could not define it.

Next morning he does not feel like getting up; he has scarcely aroused himself when he drops off to sleep again.

This happened every morning for more than a week.

Nov. 16. - Took several drops of Formyl acid.

In the evening, when walking, the right knee gave way under him on account of a severe pain below the knee. The following day the same, and a hindrance in walking, from a similar severe pain in the middle toe of the left foot.

More or less during the whole day a kind of sharp corroding sore feeling or painfulness, here and there.

Headache all day long, better after combing.

Pains in the neck in the evening, which become insupportable in looking upwards.

Before a snow-storm, pain in the aponeuroses and muscles of the head, neck, shoulders and back."

(Formica, by Constantin Hering, M.D., Philadelphia, The North American Journal of Homoeopathy vol. 20 (1872), p. 24-25)

## **1856 - Provings of Spiritus Formicarum - Constantin Hering**

### **1. Constantin Hering**

"1856, Dec. 1st. A few seconds after olfaction and inhalation a violent stitch-like tightening over the left eye posteriorly and inwardly, as if a stick were pressing around something.

This is repeated for several minutes with greater violence, with a burning sensation. It is followed by a painful dulness of the head, except the upper back part.

The entire left side of the face and the cheek feels as if paralyzed, as if everything was loosely hanging down.

Several slight indefinable sensations in and around the left wrist, followed in ten or fifteen minutes by a pain in the right tendo Achillis; at its height after one hour, and most in the right upper posterior part of the head.

At 1 p. m. very frequent yawning; has to stretch out his limbs; all symptoms worse in the open air.

Pain in the neck, more on the left side when riding in the carriage, as if it would break in two.

Smelling Irish whiskey, which contains a little creosote; he gets a decided aversion to it.

Dec. 16th - Took several drops.

The first day itching in the left armpit, followed by a soreness; besides this, also a sore place inwardly. At 6 p. m., four hours after dinner, a constant pressure at the cardiac end of the stomach, as if something had lodged there.

Dec. 17th. - The itching still continues, and the feeling of soreness is increased by scratching. In the morning after having taken only one dose, as the day before, headache in the posterior upper and inner part of the head, increased by drinking coffee, and aggravated each time during and after washing with cold water.

On the 16th and 17th he could not bear as well the cold of the weather.

Dec. 18th. - Continued soreness, very painful in the anterior part of the left armpit.

In the night from the 18th to the 19th he is aroused by a patient, he feels as though he had slept enough and can do with less sleep.

Dec. 19th. - In the morning after getting up to urinate he lies down again and has long lasting erections.

On awaking, his left hand and arm have gone to sleep; on getting up he again has the same dull "thick" headache at the posterior upper and inner part of head.

Dec. 18, 19. - The winds pass from the anus with more force than usual.

The hair on his head ceases falling out when combing.

Since several days a very violent itching in the palm of the left hand.

Dec. 19, 20. - He is woke up at 3 a. m. by a cramp in the soles of his feet, particularly in the fore part and under the toes; more in the right foot, less in the left; he had the same when lying on the lounge in a warm room.

It is again a habitual thing with him to wake up and feel that he has had sufficient sleep.

A Brunswick sausage, which had become somewhat mouldy, was left in his sleeping room, and perhaps caused the following dream: He saw a funeral procession with a large coffin and many small ones ; the persons had died from scarlet fever. The procession almost came up with him, and stopped at the street corner; as he attempted to get out of the way of the wind, which blew towards him from the procession, he woke up.

Several mornings in succession, instead of the itching in the inner and anterior part of the left armpit, he now has the same in the right armpit more outwardly.

Dec. 20. - In the forenoon erections while riding in his carriage.

Dec. 20, 21. - A kind of nervous, floating (schwebend) and jerking pain in the left half of the penis in the region of the prostata, very often repeated.

Dec. 21. - In the morning strong erections, with increased sexual desire.

In the evening, night, and the following day a violent itching on the left shoulder-blade and on the left thigh near the inguinal region; it comes again and again, and is each time relieved by scratching. After using with his meal some fresh and sweet fat he has a long after-taste, which finally turns into decided rancid taste.

As late as January he is troubled in the night with cramp in both feet, especially in the soles near the toes, and always on a very small spot.

In the second week of January he is more affected by the cold than usual, especially when walking against the wind in the evening.

For several evenings he drank beer and afterwards wine, and although he went to bed at one o'clock he woke at three, and felt as if he had had enough sleep.

Itching on the scrotum ; during coition insufficient erection; in the morning the same pain in the occiput. - C. Hg."

## **2. N. Koller**

"1856. - Dull pain in the head (commencing at the base of the cranium and extending upwards), most in the temporal regions.

Lancinating pain in the right temporal region (from within out).

Pressive pain in both ears (with heat).

Heat in the scalp (feverish).

Headache with nausea.

Itching and soreness in the outer canthus of the right eye, with dimness of sight; sensation as of sand in the eyes, with much lachrymation and soreness of the lids. Pain in the chest when taking a full inspiration.

Pain (boring) in the right orbit, followed by subsequent pain in the left ear.

Dull pain in the region of the spleen.

Rheumatic pain in the right elbow-joint.

Rheumatic pain in the right wrist-joint and in the course of the ulna.

Pain in the hips (bruised) at night in bed, causing him to change from side to side.

Pain in the knee-joints (rheumatic), most in the right, increased by walking.

Lancinating pain in the left knee-joint, waking him from sleep.

Feverish heat all over the body, most in the scalp.

Indisposition to exercise the muscles; they feel painful when exercised, especially the extensors of the legs.

General weakness of the whole muscular system; the muscles feel as if paralyzed. - (Reported to C. Hg. by N. Koller.)"

### **3. John A. Stiles**

"Dec. 26, 1856, 10 a. m. took four drops.

Fifteen minutes afterwards had a dull confused sensation in the head, which continued for 20 minutes. At 12 M. took five drops, which produced the same sensation in the head as before, but more distinct. At 2 p. m. took six drops, which produced the sensations in the head still more distinct and of longer duration. Half-past 5 p. m., a dull heavy pain in the forehead, also slight pain in the hips and small of the back and sacrum. At 6 p. m. took 7 drops. The head symptoms which followed were more marked than formerly, slight vertigo, confusion of ideas, difficulty of thinking. Seven p. m., the pains in the back and hips have increased, they are of a sharp shooting character, shooting down the thighs. Also shooting pains in shoulders and down the arms to the hands and fingers, a sensation of pricking over the skin in the region of the pain. The pain is more on the left side than on the right side.

Dec. 27. - Pains are very slight this morning. At 10 a.m. took 5 drops, which produced the same head symptoms that the first dose did yesterday. At 12 M. took 6 drops, which produced an increase of the head symptoms. At 3 p. m. took 7 drops. The head symptoms still more distinct. The pains have increased at 4 p. m., are of the same character as yesterday, but more acute. The pricking sensation is the same. Acid eructations, rising of fluid from the stomach, which tastes like sour food, causing the mouth and throat to smart.

Dec. 28. - Took none of the Formica to-day. The pains are more acute than they were yesterday, but of the same character; considerably more pain in the forehead, also more pricking, with slight itching.

Dec. 29. - No medicine; the pains have mostly disappeared.

Dec. 30. - No medicine; the pains are gone, except a very little in the head.

Dec. 31. - At 10 A. m. took 7 drops, which produced the head symptoms as formerly. At 12 M. took 8 drops, which produced an increase of head symptoms. At 7 p. m. slight shooting pains in the hips, shooting down the thighs. 10 p. m., pains have increased and are more acute and sharp.

Jan. 1, 1857. - 8 a. m., not as much pain as last night. 10 a. m., pains increase whilst sitting up after a walk. An uneasy painful sensation in the hips and thighs, with a desire to change often their position whilst sitting. Took 9 drops, which produced head symptoms as formerly. 12M., severe pains in the crest and dorsum of the ilium, extending across the sacrum with a

sensation, as though there was powerful traction at the attachment of the muscles; shooting pains in the thighs down to the knees; acute pain in the inferior part of the scapula; also shooting pains in the arms, extending to the elbows. 1 p. M., pains more acute, shooting pains in the forearms and hands.

Jan. 2. - Took no medicine; pains of the same character, but not so acute.

Jan. 5. - No medicine since New Year; the pains gradually diminished since the 2d.

Jan. 6. - 5 p. m., very severe attack of pain across the sacrum and dorsum of each ilium; every movement caused very severe pain. Could only rise with great difficulty from the chair, or walk, or move my body in any way. The sensation was as if the muscles were strained, and on the point of being torn from their attachment. Much pain for a while after going to bed.

Jan 11. - Pains gradually diminished, but are not yet entirely gone. - (John A. Stiles, Hartford, Ct., in a letter to C. Hg., Feb. 17, 1857.)"

#### **4. Ch. A. Brooks**

"I began by taking drop doses every hour, but they had no particular effect, except to produce a headache; afterwards increased the dose to 30 drops, then to 60, and obtained the following symptoms:

Headache on the top of the head and forehead, particularly through the temples.

Dull sleepy feeling, with heaviness of the eyelids, and inability to study.

Irritable feeling, with disposition to become angry easily and at slight things.

Burning pain in stomach with oppression and weight.

2d Day. - Pain in the elbow and wrist of right side; darting, sticking pains in the arm, neck, and chest of right side.

3d day. - Pain in arm and leg of right side; pains mostly in the joints; deep-seated pains as though they were in the bones; the pains shifted about and did not remain long in one spot.

Pains were relieved by smoking, aggravated by study and sitting quietly.

Recurrence of the pains several days after upon taking a slight cold.

I could have made far more accurate observations had I not been obliged to study so constantly. I did not try attenuated doses. - (Ch. A. Brooks, in a letter to C. Hg., 1857.)"

#### **5. Given to a man for rheumatic pains**

"Sp. Form, given to a man for rheumatic pains, particularly troublesome during half slumber (dozing), was followed by the following symptoms:

Watery, to him very offensive, taste in the mouth; disagreeable sweat during the night; woke up with clammy skin; had the same symptom years ago, but not since; pain in the eyes mornings when awaking, which become better by washing; the pains are less the first night after taking it, and afterwards disappeared entirely."

#### **6. A young lady**

"A young lady took for several days Spiritus Formicarum.

On the third day she had for the first time in her life protruding painful piles; they appeared without constipation, lasted a week, and then disappeared.

Several days after ceasing to take the remedy she got a catarrh (cold in the head), very common to her, only on the right side of the nose, and affecting the right eye. It lasted two days,

then suddenly disappeared without going to the left side, which had always been the case in former attacks. - C. Hg."

### **7. Miss P.**

"On Sunday took three drops of the fluid, perceived no effect except that in the afternoon had slight palpitation of the heart, which lasted about five minutes.

Monday took six drops, perceiving no peculiar symptoms, except a perhaps slightly increased action of the heart. In the afternoon a dull headache in the front of the head, with occasionally a shooting pain from the right temple into the head.

Wednesday morning before rising felt ten or twelve sharp twinges of pain in the right ear (perhaps attributable to a thin muslin nightcap). Took the rest of the fluid, about half a bottle-ful, but felt no effect at all, except a little headache in the afternoon.

Thursday afternoon, after a day of unusual exertion in the garden, had a severe sick headache with nervous shudderings and vomiting ; is subject to these sick headaches after over-fatigues, but this was more severe than usual, and accompanied by shooting neuralgic pains in the temples, which she never had before. Each time after taking the fluid she felt a slight nausea.

Friday afternoon again headache with occasional fluttering of the heart. A cold in the head coming on. - (Miss P. by C. Hg.)"

### **8. L. N.**

"L. N. - After taking the first powder, the blister on the face for which the medicine was given, seemed rather smaller and harder. After the second it was softer and felt sore, and a small pimple appeared on the face. The morning after the third the surface of the blister was irregular. Almost immediately after the fourth, slight earache for a few hours; in the evening she was suddenly attacked with a cold in the head, without any other symptom of having previously taken cold. This passed away in about half an hour. In the morning after the sixth, as several times before, she got up with a very sore throat and earache in both ears. Took the last powder without relief; the root of the tongue is sore and all the parts around the ear swollen and uncomfortable; slight pain in the deaf ear, extending up into the temple, with external sensitiveness. All the symptoms, including the cold, have been on the right side (which is the deaf ear), the others occasionally sympathizing. The powders taken at night seem to have had the most effect. - (C. Hg.)"

### **9. Mrs. G.**

"Mrs. Q - f., a lady approaching the climacteric years, suffered for some time, frequently with a kind of nettle-rash, which, in spite of several years' careful treatment, returns again and again without any observable cause. It appears now after a cold, now after a gastric derangement, and at times without either. Her whole body then becomes covered with white, very tormenting nettle-like elevations, flat blotches covering large places, scarcely without redness, but itching violently. Her sleep had been disturbed a week before the eruption.

Several doses of Sp. Form, were sent to her, which she took in spite of a diarrhoea which had set in, whether before or after the first dose could not be ascertained. After having a thin evacuation with bellyache every morning for a week without much relief from the eruption, there appeared in the evening, at 8 or 9 o'clock, violent diarrhoea and vomiting, which she maintains was caused by the Formica. She had severe pain in the belly and shuddering chilliness. This happened two evenings in succession. The eruption diminished, except an itching and smarting of the eyelids. After dressing in the morning and gargling her throat, when hawking, she suddenly had a violent pain in the left side of the nape of the neck, extending down the left arm. She could scarcely move her arm on account of the pain. In the evening the pain in

the left arm abated, but went to the right, where the pain was worse than ever before. The worst pain was in the upper arm above the left elbow. If she bent her head back, she could scarcely bring it forwards again on account of the pain. The whole neck was stiff and very painful up to the back of the head, and worse from the least motion. When she wanted to rise from her bed, she had to press both hands behind her ears. She cried out aloud after the least motion. She recollects having had a somewhat similar attack about 10 years ago. She took from her medicine-chest *Hell.* and *Acon.*, in alternation, rubbed the painful part with fat, applied hot flannel and flannel dipped in hot water; nothing helped until she applied a mustard plaster, when the pain was somewhat alleviated. After having slept, but still unable to rise, she received *Hell.* 2m.. (Jenichen). Half an hour after, she drank a cup of coffee. She reported that she perspired for about half an hour, but without the slightest amelioration. Frequent belching also without any relief. She had a constant desire to move, but made only very slight motions, as the slightest motion aggravates the pain. While eating and chewing her food, especially when closing the jaws, she had a severe pain in the left side of the neck, which extended into the back of the head and particularly behind the ear. At noon, after drinking tea, she had again a copious sweat, without relief. All day, weak and languid, no inclination to do anything. In the expectation that the storm had been lulled, and as so many things had been done, she was now left without medicine during the day. Had all day much thirst, but the water tasted very badly, sweetish and insipid. Had another painful stool. In case of pain returning during the night, a dose of *Chamomilla* high, to be taken in water.

Next day she reported that she passed a dreadful night. Although the pain had left her on the morning before, and she had been free from it even during the first part of the evening, the pain suddenly returned with violence, only lessening somewhat after midnight. She had a dry throat all night, could scarcely speak; when she got into a position in which she could sleep a little, the dryness of the throat woke her out of it. After smelling of Camphor the pain over the eyes was relieved. She inhaled ether, which relieved the pain in the neck. After sitting up, the pain in the neck became worse again, but was relieved by the application of a hot iron. From the least turn or twist of the body it darted like lightning through the body into the neck and up into the head. The pain was less in the arms, but much worse in the neck and head; it was now only in the left side of the neck, where it had commenced. She could lie on the right side, but not on the left. Although she had less pain in the right arm, she could not raise it to the head. *Chamomilla* 2c, in water, relieved the pains wonderfully. She took it about 6 or 7 times, when she slept a little, and after waking felt better. She also had perspiration, which ameliorated. Slept better than for a long while. In the morning, another stool. The thirst continued and the water still tasted sweetish. Soreness in the neck and up into the head. It feels better by external pressure. Although she has improved, she cannot see, because she has a flickering before her eyes, and the eyes are very weak.

She gradually recovered. A long time after her nettle-rash reappeared, and she was not free from it until she passed the climacteric period. The pain in the neck and arm never returned again, now ten years. - (C. Hg.)"

(Formica, by Constantin Hering, M.D., Philadelphia, The North American Journal of Homoeopathy vol. 20 (1872), p. 25-34)

### **1857 - Proving of *Formica rufa* - Miss B.**

"Feb. 28, 1857. - Two pellets of the 200th Jenichen. Slept well.

March 1, 11 a. m. - Pain in the forehead with nausea; p. m., long deep stitches into the left ear lasting two hours; the same stitches in the left upper arm. Restless sleep.

March 2, p. m. - Great sleepiness for half an hour; very little sleep during the night, but much nausea.

March 3. - The same sleepiness, and stitches in the ankles of the left foot; slept well.

March 4. - Dull pain in the forehead during p. m., and stitches in the left ear and upper arm, as on the first of March; in the evening attacks of faintness, lasting some minutes. Everything turns black before her eyes; must sit down; restless sleep at night.

March 5. - Nausea and vomiting of yellowish bitter mucus in the morning. Restless night.

March 6. - In the morning dull headache in the forehead; p. m., violent itching in the inside of the left arm and hand, followed by rash in streaks on the arm and on the left hand, as from the seams of a glove.

March 7. - In the morning nausea followed by stitches in the left ear, lasting all day.

March 8. - Sleepy, p. m.; dull headache in the evening.

March 9, 10 a. m. - Nausea and vomiting, as on the 5th. In the night hysterical attack of laughing followed by shedding of tears; later, lockjaw; restless night.

March 10. - Very weak in the morning; p. m., stitches in left ear.

March 11. - Sleepy in the afternoon, and pain in the left side of the chest continuing a quarter of an hour; better when walking, worse when sitting and taking a deep breath, with stitches and the sensation of an adhesion.

March 12. - Stitches in left ear and left upper arm.

March 13. - Sleepy in the afternoon.

March 14. - When waking in the morning, headache with vomiting, and stitches in the side of the chest.

March 15, 9 P. M. - Vomiting of green, bitter mucus, and headache.

March 16. - Wakens feeling very weak.

March 18. - Slight stitches in the left ear.

Till the 24th of March cessation of all symptoms; on that day slight stitches in the left ear, followed by a small abscess in the external portion of the meatus auditorius, and later much itching in the ear. - (A. L.)"

(Formica, by Constantin Hering, M.D., Philadelphia, The North American Journal of Homoeopathy vol. 20 (1872), p. 34-35)

### **1864 - Provings of Formica rufa - Adolph Lippe**

"**C. G.** - took two pellets at 5 p. m. (Oct. 1864).

On 2d, 3, and 5th days pressure on the rectum; sensation of constriction in the anus.

From 2d to 6th day two stools every day (one stool is the rule); pressure in the rectum, worse in the evening and in bed; dreams the first three nights not unpleasant.

**S.** - took, November 30, 1864, at 11 p. m., one dose 200 Jenichen. December 1, all day very happy, and inclined to be jolly; soft, pappy discharge from the bowels in the morning; inclined to be giddy while eating; inclination to pain about an inch over the left eye, alternating with pain in the left parotid region, accompanied with pain in the whole left temporal region, when touching it with the hand, 11 p. m., pain in the left supra orbital region when going to bed, with giddiness.

Dec. 2, 4 a. m.. - Giddy on attempting to rise; rumbling in the bowels, with a nervous feeling

as from strong coffee; compelled to get up. A loose diarrhoeic stool, which left a desire for another stool, with an uncomfortable feeling in the anus, as if the passage were not all through and more must pass. Painful desire in the anus and rectum for stool, which, however, will not pass. Dysenteric feeling. Dull, uncomfortable pain in the forehead, with heat and fulness and pulsations.

**W. W.** - took one powder November 30, 1864, at 7 ½ p. m.

10 p. m. - Uneasy pain in the region of the heart, lasting half an hour or more; very wakeful after going to bed.

Dec. 1. - Evacuation of bowels with difficulty, ending with thin fauces, painless; great sleepiness in the evening; removed while reading.

Dec. 2. - Spasmodic twitching of upper lid of right eye, lasting one hour; sensation of pain in forepart of urethra; lewd dreams at night; slight pain in left ear; biting pain in left forearm, lasting a short time.

**F. E. E.** - Nov. 30, 1864. - Took one dose in the evening.

Dec. 1. - Diarrhoea with some tenesmus; pain in lower umbilical and upper hypogastric regions before moving the bowels, relieved after stool.

Dec. 4. - Great sexual excitability. After 12 o'clock an intolerable drawing headache in left side, relieved after supper. Deep-seated stitching in left ear, at times almost amounting to pain.

Dec. 5. - Same symptoms as on 4th, with bruised sensation of the lower limbs. Pain through the pelvis as if from one acetabulum to the other.

Remarks: Before taking the medicine was troubled with constipation, with sensation of constriction of sphincter ani; relieved entirely of these symptoms, afterwards diarrhoea set in.

**K.** - took one dose in the evening of Nov. 30th, 1864.

Dec. 2. - Menses appeared rather scanty and pale; with tearing down pain in the back.

Dec. 3. - Same as on 2d, discharge darker.

Dec. 4. - Menses continue, with a crampy pain through the hip-joint and pelvis.

Dec. 5. - Discharge becomes scanty and pale again; the pain in the back is diminishing.

Dec. 6. - The symptoms are still continuing to disappear.

Dec. 7. - All symptoms have ceased.

Remarks: She has been very costive all her life. On the 5th instant all her bowels began to move regularly, got a little worse since, but not so bad as before. Her menses appeared eight days too soon. She always was regular before."

(Formica, by Constantin Hering, M.D., Philadelphia, The North American Journal of Homoeopathy vol. 20 (1872), p. 35-37)

### **1864 - Proving of Formica subsericea - Noah Koller**

"The ants were collected by the late Mr. *George Fahnestock*, in the midsummer and latter part of August, 1864, on the portico of the Catskill Mountain House, 3,000 feet above the level of the sea. The workers were caught alive and put one by one in a phial with Alcohol, to be used for homoeopathic provings. *P. R. Uhler*, our entomologist, had the kindness to secure the name of the species.

Dr. Noah Koller took of the Tincture of *Formica subsericea* Gray, several drops, Sept., 1864. - Dull pain in the whole head, with occasional boring pain in the right temporal region with vertigo, pain also in the left; dull pressing pain deep in the orbits; irritation in the eyes as from sand; a stupid feeling in the head with a sensation of stiffness in the neck at the same time; coryza fluent, thin, acrid, causing a burning in the nose; nose sore to the touch, feels as if stopped up; great liability to take cold; a sharp shooting pain in the left ear; dull pain in a carious tooth with inflammation of the gums and swelled cheek (pain being of a dull, pressive character); dry huskiness and sore feeling in the throat; cough from irritation in the larynx, with loose expectoration during the day; pain beneath the short ribs when taking a deep inspiration; stitching pain in the right hypochondriac region; a feeling of warmth in the lower part of chest and abdomen; dull pain in the region of the spleen; pain as if bruised in the umbilical region, extending across the abdomen, after taking a drink of cold water; belching of wind, tasting sour; stitching pain in the region of the liver; severe pain in the stomach in the evening, cramp-like, with passage, of flatus from the bowels, which gave relief; colicky pain in the lower part of the abdomen with passage of flatus, which relieved but momentarily; subsequent passage of soft stool with heat and burning irritation of the anus, accompanied by a sensation of great weakness in the bowels; a sensation of heat in the epigastrium extending over a large space; small jerks along the left side of the spine in the region of the ninth rib, due to spasm of a small portion of muscles; rheumatic pain in the right forearm and wrist; stitching pain in the course of the ulnar nerve down to the left little finger; tingling in the left fingers; rheumatic pains in both hips from left to right; rheumatic pain in the left knee; sharp rheumatic pain in both ankles, much increased by walking; cold feet continually; a wretched feeling of the whole system, causing one to gape and stretch; a languid feeling of the whole system with pain in all the limbs, accompanied by chills and horripilations along the spine; dull pain beneath the short ribs; aching of the bones, with a feverish state of the system with fulness and dulness of the head; very susceptible to cold; great liability to take cold and bad effects from it; a severe bruised pain in the left hip-joint, so as to interfere with walking. - (Reported to C. Hg.)"

(*Formica*, by Constantin Hering, M.D., Philadelphia, *The North American Journal of Homoeopathy* vol. 20 (1872), p. 37-38)

### **1864 - Provings of Formica subsericea - Adolph Lippe**

"The following fragmentary provings of *Formica rufa* (Jehnichen's 200th potency), and of *Formica sericea* (Gray), in various potencies, were made in 1857 by Miss B., and in 1864 by the class of the Homoeopathic Medical College of Pennsylvania. The potencies were prepared before the class, and it was left optional with each prover what potency he might choose to take. Provings of various potencies will much facilitate to settle many yet open questions in our school. If the proving of the 200th potency, as reported under 13, proves to be reliable, i. e., if the clinical experiments show the correctness of, and confirm, the proving, it will be another additional evidence of the long action of a highly potentized medicine on the healthy, and correspondingly long on the sick, and of the effect of the single dose. To the student of *Materia Medica*, it will be very interesting to compare the effects of the different doses, and the confirmation of symptoms observed by different provers. To the class of students who made the provings under the conviction that the very first step in the study of *Materia Medica*

was to make provings on themselves, which also aided them in the acquirement of "observation," which is so necessary to the physician in the examination of the sick, and convinced that we must first learn to observe ourselves, especially when a deranged state of health appears (as in a proving), before we can well observe similar conditions on others - to that class I take this opportunity to express my thanks. The delay of publishing these provings is fully explained in the *Hahnemannian Monthly*, Vol. VI., p. 276, and exonerates me from a charge of neglect to fulfil my promise to the class, that their provings should be published at once. The delay was caused by circumstances over which I had no control.

**Proving 1.** - C. W. B. took one drop Formica 30, Oct. 19th, 1864.

10 p. m. - Wakefulness all night, with very little sleep.

Oct. 20. - In the morning, dizziness after dressing, when writing.

Remarkable and unexpected activity of the mind during the day, with absence of the usual dulness and sleepiness.

Oct. 21. - Slept well during the night.

Oct. 22. - Sleeplessness last night.

Diarrhoea early in the morning, as soon as awake; compelled to go to stool at once, with rumbling in the bowels; the stool is soft and painless ; another stool immediately after breakfast, with urging.

The alternation of wakefulness and sleep has continued at night with great regularity.

From 26th to November 2d there have been regular alternations of sleepless nights and profound sleep.

One night getting to sleep with great difficulty, and waking often during the night; the next night the sleep would be quiet and profound.

Sudden and unexpected return of sense of mortification and grief, with vivid recollection of circumstances long since passed, which had caused great mortification and pain, and which had rendered several years of his life unhappy; this was caused by the transactions of a near relative.

This grief continues and manifests itself whenever he is not wholly occupied.

Dec. 2. - Easily depressed. Things do not look as cheerful as on yesterday and before. Little things cause lowness of spirits, yet soon return to cheerfulness.

Dec. 3. - Decidedly irritable and low-spirited without any cause.

Soft pappy stool in the morning, with some inclination to sit at stool.

Dec. 7 - The same kind of stool every morning till this date, when it was natural. The passage was accompanied by a feeling as though the mucous membrane was thickened and stiff.

**Proving 2.** - A. H. O. took one drop Formica 30 on November 2, 1864.

November 4th about 5 p. m., tearing, drawing, grumbling pain in the two incisor teeth, superior maxillary bone on right side. This pain was accompanied with much soreness. Teeth felt elongated.

Occurrence of this pain at regular periods of the day for about five days, when it gradually disappeared.

**Proving 3.** - J. P. H. took one drop 3d dilution of Formica on the night of October 19, 1864.

Oct. 20, 11 A. M. - Stool, constipated; passed but two small balls after much straining.

Appearance when looking at objects as if seen through a mist.

Oct. 21 - In the afternoon intolerable itching about the anus, relieved by scratching.

On Oct. 22, at 6 a. m. - On waking felt much pain in transverse and descending colon from incarcerated flatulence. Was obliged to rise; stool papaceous, followed by constriction of the anus.

Continued pain in the descending colon.

Another stool at 9 a. m., with violent tenesmus, and constriction of the anus after the stool.

At noon, slight pain in right side of pharynx in empty deglutition.

9 p. m. - Twitching in triceps muscle of left arm. Lower lip dry and cracked.

11 p. m. - Burning pain in left carpal bones.

Oct. 23., 8 p. m. - Sharp intermitting pain in fourth toe of left foot. Soon after, a burning pain just behind the ball of the first toe of the same foot.. Soon after, slight pain in the lower part of the tibia of the left leg.

Oct. 24. - Soreness at corners of the mouth.

**Proving 4.** - W. H. H. N. took one drop 6th at 10 o'clock Oct. 27.

Oct. 28, 12 M. - Sensation of stinging in palate, worse from eating, smoking, or contact. This stinging continued for two days, and then extended to the tip of the tongue.

9 p. m. - Shooting pain in carpal bones, while writing, extending down third and fourth fingers.

10 p. m. - Surging in upper part of the brain, momentary, and followed by slight dimness of vision. Itching in anus, relieved by scratching.

11 ½ to 12 p. m. - Shooting pain in region of left scapula. Stinging and burning in left great toe. Shooting pain in left eyeball. Continued chilly sensations during the night.

Oct. 29th. - Continued creeping down the back.

12 M. - Difficult deglutition. Sensation of contraction in oesophagus. Food passes with difficulty and caused pain. This sensation continued for about 12 hours.

8 p. m. - Pain in lower part of left breast, followed in two minutes by the same sensation in right breast, accompanied by continued chilliness down the back, and extending down the inferior extremities.

10 p. m. - Pain in epigastric region, extending from left to right, then shifting to top of head, and followed by creeping down the back. Tearing pain in occiput. Tearing and drawing in left arm and leg from above downwards. Shooting pain in left ear.

Oct. 30. - In the morning slight diarrhoea, two passages, small and without pain.

**Proving 5.** - Took one dose 30th, in the morning of Nov. 19th, 1864.

An intolerable itching in the conjunctiva in the morning, which burns when rubbed.

Itching of the scalp, arms, abdomen, and the whole trunk and head. (This symptom was well marked.)

Sudden pain in the left lung, followed by a sensation as if I were falling.

Heaviness of the head, and a sensation as if the brain were too large and heavy.

Very red cheeks, in the evening, which burn so much as to feel uncomfortable.

Hand and face very hot. The palms of the hands burn.

Headache, dull, in the right frontal region.

Pulse 92. Irregular. Some fever.

Nov. 20. - At night vivid lewd dreams, erections of penis, and seminal emissions.

Nov. 21. - Same symptoms.

Nov. 22. - Do.

**Proving 6.** - C. W. B. took one drop 30th at 10 p. m., Nov. 17th, 1864.

Nov. 18, 8 a. m. - Loose stool.

Feeling of fulness in eyes and ears, with fine stinging in ears.

During the day remarkably happy and able to study. Everything seemed easy to be accomplished.

More than usual agility.

Nov. 19. - Same happy state of mind and body, but easily depressed, and by slight causes this happy state was changed for a short time to despondency. Sudden but momentary spells of unhappiness; everything looks dark (mentally).

Sleeplessness the first 24 hours, with sleeping and waking alternately afterwards.

Double the quantity of urine even at night. Increased for two or three days.

Great agility of mind and body.

**Proving 7.** - C. G., Oct. 24th. - Evening at 10, took 2 drops 30th.

In 15 minutes slight pressure over left eye for a few minutes. - 10.50, stitches in left lumbar region, lasting only a few seconds.

Oct. 25th, 11.50 a. m. - Tearing pain in middle finger of left hand. 12 o'clock M., frontal headache, dull, lasting all afternoon till 10 p. m.

Oct. 26th. - Headache at 12 M. as bad as yesterday, some pain and still lasting ; 4 ½ , pain in right side of chest, could not breathe for a moment. Stitching pain. Headache daily from 12 M. till 10 p. m., worse when stooping.

Pain over both eyes. Every day from 12, aching. Earlier every day, the same also in the morning.

**Proving 8.** - Nov. 30, 1864. Z. E. E. took one dose 30<sup>th</sup> in the evening.

Dec. 1. - Diarrhoea, with some tenesmus. Pain in lower umbilical and upper hypogastric regions before moving the bowels; relieved after stool.

Dec. 4. - Great sexual excitability. After 12 o'clock an intolerable drawing headache in left side; relieved after supper. Deep-seated itching in left ear, at times amounting almost to pain.

Dec. 5. - Same symptoms as on 4th, with bruised sensation of the lower limbs. Pain through the pelvis, as if from one acetabulum to the other.

Remark. - Before taking the medicine was troubled with constipation, with sensation of

constriction of sphincter ani; relieved of these symptoms entirely, afterwards the diarrhoea set in.

**Proving 9.** - W. L. G. took Formica 30th, one dose, after breakfast. At noon on the first day sensation like a bubble bursting in the forehead, running around the left side of the head. General exaltation; wants to run, but soon becomes tired, in the evening especially. Unable to study long at night. Lewd dreams often during the night, with erections.

2d day. - General lightness; the same dreams during the night.

3d day. - Headache after dinner on the left side, same as first day. Sleeping easily in the evening. Same lewd dreams and erections during the night.

4th day. - Urine like saffron; bright yellow; no sediment Passes urine often. Lewd dreams at night.

5th and 6th days. - Frequent urination; urine darker. Hot, red swelling of prepuce. Secretion under the prepuce much increased, continuing for one week. Merc. corr. stopped all the symptoms."

(Formica, by Dr. Adolph Lippe, The North American Journal of Homoeopathy vol. 19 (1871), p. 485-494)

### **1892 - Provings and Clinical Observations with High Potencies - Malcolm Macfarlan**

"Pains down the anterior surface of both arms; worse about the elbow, as if bruised; felt as if she was going to smother; throat very sore; eyes and head very much affected; difficult to think or use her eyes well; chest internally felt badly from the nipples upwards; as if she would raise a quantity of mucus; sensation as if she would have quinsy; left side of throat worse than right; cough very troublesome; cough strains her; it is so severe and constant.

Lower legs felt as if she had no power in them; sore and tired sensation across the abdomen below the navel, as if bruised; tired feeling in the back; felt slightly giddy." (Formica rufa 45M)

"Felt as if an abscess was forming in her tonsils; left side worse than right; throat was very sore on swallowing or drinking." (Formica rufa 45M)

"Felt as she would smother; cough very severe; violent straining sensation in coughing, as if the mucus would choke her; free expectoration." (Formica rufa 45M)

(Malcolm Macfarlan, M.D., Philadelphia Provings and Clinical Observations with High Potencies, The Homoeopathic Physician vol. 12 (1892), p. 289; vol. 13 (1893), p. 435, 533)

### **1933 - Prüfung von Acidum formicicum - Dr. Kiermayr**

"In den Jahren 1929, 1930, 1931 habe ich Acidum formicicum D 12 fast ununterbrochen eingenommen, 5-10 Tropfen etwa alle 8 Tage einmal. Ferner habe ich im Februar 1930 eine subcutane Injektion von Acidum formicicum D 6 gemacht.

Auf diese Injektion bekam ich einen Zustand größter Erschöpfung, unbeschreiblicher Müdigkeit, der 6 Wochen anhielt. Meiner Arbeit konnte ich nur mit großer Mühe nachkommen: dumpfe Kopfschmerzen, das Gehirn wie geschwollen, Verstopfung, schlechtes Aussehen, große Abmagerung bei gutem Appetit.

Bei der innerlichen Einnahme von D 12 habe ich folgende Symptome beobachtet:

**Allgemein:** Die Wirkung der gleichen Gabe war nicht immer dieselbe: einmal mehr Kopfschmerzen, andermal mehr Müdigkeit als Anregung. Bei Aufregungen stellten sich leicht Kopfschmerzen ein.

**Stimmung und Nerven:**

1. Kleine Gaben: angeregt, erregt wie von starkem Kaffee. Geringe Müdigkeit; frühes Erwachen, Ausdauer.

2. Große Gaben: deprimiert, reizbar, jähzornig, Angstzustand des Nachts am Herzen, Alpdruck, aufgeregte Träume, große Müdigkeit, kann aber doch nicht schlafen; dumpfer Druck im Kopf, dumpfe Schwere, Gehirnmüdigkeit, Nachlassen des Gedächtnisses, Zitterigkeit wie in schwerer Krankheit; immer Brand und Hitze, Verlangen nach Kälte.

**Haut:** Aknepickel, feucht, heiß, Jucken, Urticaria, Brennen am Scrotum, Hämorrhoiden bessern sich, Pruritus am Perineum, starker Schweiß, eigentümlicher Geruch der Haut, Ekzem.

**Augen:** Schwere der Augen, Gefühl eines Schleiers, Trübgesichtigkeit, **ödematöse Schwellung** des Lides. Anspannung aller Sinne: Auge, Ohr, scharfe Aufmerksamkeit, Empfindlichkeit.

**Nase und Mund:** Nasenkatarrh, Rachen morgens trocken, alte Zahnabszesse melden sich, Mandelentzündung, "Gefühl von langen Zähnen" sitzen wie auf Polstern.

**Herz:** Stechen an der Spitze.

**Darmtraktus:** Größter Appetit, dabei Abmagerung, großer Durst. Sodbrennen: Kaffee, Alkohol, Tabak werden sehr schlecht vertragen.

Schneiden im Leib.

Plötzlicher Durchfall, meistens verstopft.

Kneifen im Mastdarm, Drang und doch kein Stuhl.

**Harnwege:** Kreuzschmerzen. Anfangs Diurese, Zwang am Schließmuskel und After, festerer Verschuß, Blase wird voller.

**Sexualsphäre:** Krampf im Funiculus spermaticus, Spermatorrhoe ohne Erektion.

**Muskelrheumatismus** in der Schulter nahm erst zu, später Ausheilung.

In der rechten Hüfte hatte ich noch Schmerzen von einer alten Hüftgelenkstuberkulose: Diese Residuen sind verschwunden, sind resorbiert.

**Nervensystem:** Taubes Gefühl im Arm morgens im Bereich des Ulnaris verschwand durch Bewegung.

Vorstehendes habe ich an mir selbst beobachtet."

(Acidum formicicum, Prüfungsbericht von Dr. Kiermayr, Eickel-Wanne, Deutsche Zeitschrift für Homöopathie Bd. 12 (1933), S. 132)

# Symptom Register

1873 - Constantin Hering

## FORMICA Symptoms Arranged Comparatively

### History

See *North American Journal of Homoeopathy*, August, 1871, page 12-17. *Formyl acid*, p. 17-20. Toxicological remarks, p. 20.

1855. Preliminary provings of *Formic ether*, p. 22.

1858. *Formyl acid*, p. 24. *Spiritus formicarum*, p. 25.

1857. *Formica rufa*, tincture, prepared by apothecary Lappe, near Erfurt, Germany, potentized by Jenichen to 2c. Proved by Dr. A. Lippe, Miss B. *N. A. J. of H.*, May, 1871, p. 492-494 ; erroneously reported again in August, p. 34.

1864. *Formica subsericea*, Gray. Prepared by George Fahnestock, at Catskill Mountain House, potentized by Dr. A. Lippe; proved by Lippe's Class. *N. A. J. of H.*, May, 1871, p. 486-494. Also a review of the symptoms of the last mentioned provings, by C. Lippe, p. 545-553. Translated, *A. H. Z.*, Vol. 83, p. 197 and 206. Corrections to *N. A. J. of H.*, p. 160. Many more discovered since, and corrected here.

### Significations

The toxicological, as well as the therapeutic observations, are here united with the results of the provings on the healthy, as well as on the sick; the provings with *Formyl acid*, the *Spiritus formicarum*, the tinctures of the *Formica rufa* and of the *subsericea*; the lower and higher potencies. United, they are more useful for the practitioner. Even such who insist on keeping each separate, have now a better chance to compare them.

Each symptom has been carefully marked at the head of the line.

T. Toxicological observations.

\* Therapeutic or cured symptoms, or names of diseases.

π Observations on the sick.

☞ Supposed characteristics.

All others with a number are from provings or are references.

The *different preparations* are distinguished by the following letters at the beginning of the line:

th. The *ether*.

f. The *formyl acid*.

sp. The *spiritus formicarum*.

r. The *formica rufa*

s. The *formica subsericea*.

All observations from the Old School authors, are either signed a. a., allopathic authors, or the name is given.

To all the symptoms from provers, the initials are given. Repeated provings are marked a. b.

### Abridgments Alphabetically

- Br. Dr. Charles A. Brooks, in a letter to C. Hg.; v. 20, p. 30. *Spirit. formic.*, drop doses.
- B. Lippe's Class, a.; v. 19, p. 486. One drop *F. subsericea*, 30. b.; v. 19, p. 489. One drop of the same.
- C. Lippe's Class; v. 19, p. 487. The same, one drop.
- E. Lippe's Class; v. 19, p. 491, (v. 20, p. 36.) The same.
- G. Lippe's Class; v. 19, p. 492. The same, one dose.
- C. G. Lippe's Class; v. 19, p. 491. First seven lines as proving, 9; *F. rufa*, 2c., v. 20, p. 3). b.; *F. subsericea*, the next 13 lines, lines 10 to 22, after two drops.
- Gf. Report to C. Hg.; effects of *Spiritus formicarum*, by drops; v. 20, p. 32-34.
- C. Hg. Preliminary provings of *Formyl ether*, a. b.; v. 20, p. 22-23. *Formyl acid*, a. b.; v. 20, p. 24. *Spiritus form.*, a. b.; v. 20, p. 25-27.
- H. Lippe's Class; vol. 19, p. 487. *F. subsericea*, 3d,
- N. K. Dr. Noah Koller; a report of a proving of *Spir. form.*, to C. Hg. Drop doses; v. 20, p. 27-28, and of the tincture of *F. subsericea*, drop doses; v. 25, p. 37, 38.
- K. Lippe's Class; female proving; v. 19, p. 492; vol. 20, p. 37. *F. rufa*, 2c.
- A. L. Miss B.; v. 19, p. 492; proving No. 13, (vol. 20, p. 34). From *F. rufa*, 2c.
- L. N. Reported to C. Hg., some symptoms from *Sp. form.*, v. 20, p. 31-32.
- M. Took the same; v. 20, p. 30; 9 lines from below.
- N. Lippe's Class; v. 19, p. 498; a proving of *F. subsericea*, 6th, one drop.
- Px. Lippe's Class; vol. 19, p. 489; proving 5, decillionth of *F. subsericea*; b.; the same, 30.
- P. Reported to C. Hg.; female proving, some symptoms of *Sp. f.*, p. 489, v. 20, p. 31.
- St. Dr. J. A. Stiles in a letter to C. Hg.; v. 20, p. 28; proved *Spir. form.*; drop doses.
- S. Lippe's Class; v. 19, p. 490, as proving 7, (v. 20, p. 36). *F. rufa*, 2c.
- T. Reported to C. Hg. some symptoms of *Spir. form.*; v. 20, p. 31; 9 lines from above.
- W. Lippe's Class; v. 19, p. 490, as proving 8, (vol. 20, p. 86). *F. rufa*, 2c.

### Mind

- . T. Unconscious; in the vapor bath, 687; stupor lasting eight days, 492.
- . fl. Forgetful in the evening. 24.
- . \* Want of memory. Lesser. Strengthens it. Strumpf.
- . th. Unusually excited. 714.
- (5). s. Remarkable and unexpected activity of the mind during the day, with absence of usual dullness and sleepiness; 2d d. B. a.
- . s. Remarkably happy, and able to study, during the second day; everything seemed easy to be accomplished; with more than usual ability, 2d d., b; great agility of mind and body; 3d d. B. b.
- . sp. Confusion of ideas, difficulty of thinking. 31.
- . fl. Disinclined to work; all the evening. 25.
- . sp. Inability to study. 510.
- (10) sp. π. No inclination to do anything. 499.
- . s. Unable to study long at night; 1st d. G.
- . T. Delirium; raving. 492.
- . T. Enlivens the spirits. 295.
- . s. Great exaltation, wants to run, but soon becomes tired in running, especially 1st d.; general lightness of spirits; 2d d. G.
- (15). r. All day very happy, and inclined to be jolly; 2nd d. S.
- . th. An exhilarated condition, almost like that produced by champagne, began after the pain in the vertex had somewhat abated, and continued until after 9 A. M. At the same time a cold feeling inwardly when inhaling the air, (as from mint.) Soon after, pressing pains in left side

of neck, and sometimes a kind of itching or burning there. C. Hg.

. r. In the night a hysterical attack of spasmodic and convulsive laughing, followed by shedding of tears; later, a great stiffness of the articulation of the jaws; cannot open her mouth; 10th day. C.

. s. After the happy state of mind and body, as the 2d day, comp. 12, easily depressed; by slight causes this happy state has changed for a short time to despondency; sudden but momentary spells of unhappiness; everything looks dark (mentally); 3d day. B. b.

(20). s. Easily depressed; things do not look as cheerful as they did yesterday and the days before; little things cause lowness of spirits, yet cheerfulness soon returns; after 2 weeks. B. b.

. s. Decidedly irritable and low-spirited, without any cause; in the 3d week. B. b.

. sp. Irritable feeling, with disposition to become angry easily. and at slight things. Br.

. s. Sudden and unexpected return of sense of mortification and grief, with vivid recollections of circumstances long since passed, which had caused great mortification and shame, and had rendered several years of his life unhappy, (by the transactions of a near relative.) This grief continues and manifests itself whenever he is not wholly occupied; 2d week. B. a.

. fl. Indisposed, forgetful, very sleepy and tired in the evening, and unusually affected on hearing bad news of some threatening evil. C. Hg.

(25). f. All the evening morose and disinclined to work; fearful and apprehensive. C. Hg.

. T. Anxiety, (while he gained the ability to move all his limbs by the antshirt); increasing agony with a dullness of head, fantasies, delirium, ending in violent raving. 492.

. r. Reading removed sleepiness, 516. Studying aggravated the pains. 438. Br.

### Sensorium

. r. Giddy on attempting to rise; 4 A. M., 3d day. S.

. s. Dizziness after dressing in the morning, when writing; 3d day. B. a.

. r. Giddiness with pain. over eyes. 117

(30). r. Inclined to be giddy while eating; 2d day. S.

. sp. Slight vertigo, confusion of ideas, difficulty of thinking; 1st day. St.

. s. Vertigo with headache. 59.

. \* Vertigo. Strumpf.

. \* Vertigo; all things seem to move to and fro, and reeling of the body. Pehrson.

(35). T. *Dullness of the head*, 492. th. The same, and pressure on both sides between temples and ears. C. Hg.

. sp. Painful dullness of the head, across upper back part. 99.

. r. Fullness in head, 52. s. And dullness of head. 440.

. s. Stupid feeling in head, with sensation of stiffness of neck same time. N. K.

. sp. Fifteen minutes after the first dose, dull confused sensation in head for 20 minutes. Repeating the drop, 12 M., the same sensation as before, but more distinct; same dose at 2 P. M., these sensations still more distinct and of longer duration. 5 P. M., dull heavy pain in forehead, and slight pain in hips, small of back and sacrum, (1st day.) Morning, 2d day, slight pain at 10 A. M., the same increasing more distinct and more acute after repeating the dose 2d day; the 5th day, really gone, returning again 6th and 7th day, after drop doses. St.

(40). s. Heaviness of head; sensation as if the brain was too heavy and large; 1st day. Px.

. T. Congestions to the head, 687; pulsations in head, r. 52. Singing in upper part of brain, and dizziness of sight. 119.

. T. In all kinds of apoplectic diseases. Lesser.

. \* In apoplexy, internally. Strumpf.

. T. The brain a soft mass. 687.

(45). \* Strengthens the brain. Strumpf.

## Head

- . s. Dull frontal headache, lasting all afternoon, till 10 P. M.; 3d day. C. G.
- . s. Dull headache in the right frontal region; 1st day. Px.
- . r. Headache like pressing out in the forehead. A. L.
- . r. Pain in the forehead, with nausea; 11 A. M., 2d day. A. L.
- (50). r. Dull pain in forehead in the morning, 7th day. A. L.
- . sp. Afternoon dull headache in front of head, with occasional shooting pain from the right temple into the head; 2d day. P.
- . r. Dull, uncomfortable pain in forehead, with heat, fullness and pulsations; 3d day. S.
- . r. Dull pain in the forehead during the afternoon, and stitches in left ear and left upper arm; 2d day. A. L.
- . s. Sensation as of a bubble bursting in the forehead, running around the left side of the head; 12 M., 1st day. G.
- (55). sp. The pains in head are more acute third day than they were the second day, same kind; much more in forehead, also more pricking, with slight itching. St.
- . sp. Forehead pain, 68; forepart of head aches, \*82; with the cough, \*326.
- . sp. Shooting neuralgic pains in temples. 89.
- . sp. Lancinating in the right temporal region, (from within out). N.K.
- . s. Dull pain in the whole head, with occasional boring in the right temporal region, and with vertigo; pain also in the left. N. K.
- (60). sp. In temples headache, 64, 68;  $\pi$  extending from the right ear, 140.
- . r. In temporal region pain. 57, 58, 59, 60, 64, \*82, \*83.
- . s. After 12 o'clock again intolerable drawing headache in the left side, lasting two days, 12 M. Relieved after supper; 4th day. E.
- . th. Pressure on both sides, between temples and ears. 35.
- . sp. Dull pain in the head, (commencing at the base of the cranium and extending upwards), most in the temporal regions. N. K.
- (65). th. Severe pain in vertex, like stitch with a dull instrument, as from a pressing nail, a little to the left of the vertex; continues until he falls asleep. C. Hg.
- . sp. In the morning headache in posterior upper and inner part of head, increased by drinking coffee, and aggravated *each time during and after washing with cold water*. C. Hg.
- . sp. Upper posterior part of the head pains, 435; posterior upper and inner part of head, 557.
- . sp. Headache on top of head and forehead, particularly through the temples. Br.
- . s. To the top of head, shifting from epigastrium. 219.
- (70). Pain in vertex. \*83.
- . th. After pain in vertex abated, exhilarated mind. 16.
- . s. Tearing pain in occiput; 3d day, 10 P. M. W. H. H. N.
- . sp. Across upper back part of head, painful dullness. 99.
- . sp.  $\pi$  Pain in neck, extending to the back of head. 347.
- (75). sp. In occiput pain. 308, \*82.
- . r. Headache, 9 A. M., A. L.; at 12 M. s. 76; from 12 M. till 10 P. M., worse when stooping; 3d and 4th day. C. G.
- . s. Headache after dinner, on the left side, same as 1st day; 3d day. W. L. G.
- . sp. Headache in the afternoon; 4th day. P.
- . fl. Headache all day long, better after combing. b. C. Hg.
- (80). r. Dull headache, evening; 9th day. A.L.
- . f. Head pains before a snow-storm. 587.
- . \* Typic headache in left forepart of head and temple back to the occiput, *every day earlier*, with a sore pain over the eye, beginning, gradually increasing, and with a cutting, extending into the ear. Pehrson.
- . \* Headache with a cracking in left ear, followed by pain in left temple, then in vertex, with

nausea, and with an abating of the pain in the forehead. Pehrson.  
 . sp. \*Nervous headache. Schreger.  
 (85). sp.  $\pi$ . Up into the head from the body like lightning. 477.  
 . sp. Afternoon, again headache, with occasional fluttering of the heart. A cold in the head coming on. 5th day. P.  
 . th. Headache until he falls asleep. 65.  
 . sp. *Headache with nausea*, N. K.; and vomiting. r. 209.  
 . sp. Afternoon, after a day of unusual exertion in the garden, a severe sick headache with nervous shudderings and vomiting; much more severe than usual, and with shooting neuralgic pains in the temples. Each time after taking the fluid she felt a slight nausea; 5th day. P.  
 (90). r. When awaking in the morning, headache, with vomiting and stitches in the left side of the chest; 15th day. A. L.  
 b. \*Headache with nausea, worse when sitting up in bed. Pehrson.  
 c. sp.  $\pi$ . Pain from neck up to back of head. 346, 350, 351.  
 d. sp. Feverish heat in the scalp. N. K. Comp. 598.  
 e. s. Itching of scalp and head. 720.  
 f. sp. \*Contusions of the head. Schreger.  
 g. sp. \*The hair on his head ceases falling out when combing; 3d and 4th day. C. Hg.  
 h. Black ants triturated with water and rubbed into the arm-pits after extracting the hair, retards their growth. Sadduck. Ebn. Baithar.

### Sight and Eyes

. sp.  $\pi$ . Although improved, she cannot see, has a flickering before her eyes, and the eyes are very weak. Gf.  
 . r. Black before the eyes, must sit down for a few minutes; 5th day. A. L. Comp. 502.  
 . s. When looking at objects they appear as through a mist; 11 A. M., 2d day. H.  
 . sp. *Dimness of sight*. 113. s. 119.  
 (95). fl. Looking upwards, increases pain in neck. 344.  
 . s. Dull pressing pain deep in the orbits. N. K.  
 . s. Feeling of fullness in the eyes and ears, with fine stinging in the ears; 2d day. B.b.  
 . sp.  $\pi$ . Pain in the eyes mornings when awaking, better by washing, lessened the first night after. M.  
 . sp. Violent stitch, like lightning, over the left eye, posteriorly and inwardly, as if the stitch were passing around something. Repeated for several minutes with greater violence, with a burning sensation; followed by painful dullness of head, across upper back part. C. Hg.  
 (100). s. Shooting pain in left eyeball, 11 ½ to 12 P. M.; 2d day. N.  
 . sp. Boring pain in right orbit, followed by pain in left ear. N. K.  
 . th. A cool burning in the eyes, as though snow flakes were falling on the conjunctiva and cornea. C. Hg.  
 . Smelling of a cup with molasses, where several hundred ants had been squeezed in, causes a crawling in the eyes and sneezing. (*Formica omnivora* in Peru.) Poppig.  
 . s. Irritation in the eyes, as from sand. N. K. sp. The same. 113.  
 (105). \*Nebula; leucoma; pterygium. a. a.  
 . \*Maculae on the cornea, *aqua f.*, externally. Strumpf.  
 . \*Ulcers on the cornea; with honey. Platner.  
 . sp. Much lachrymation. 113  
 . r. Spasmodic twitching of the upper eyelid of the right eye, lasting an hour; 2d day. W.  
 (110). sp. Lids sore, 113; heavy, 436.  
 . sp. Eye affected by coryza, 146.  
 . \**Rheumatic inflammation of the eye* and sequelae. C. Hg.  
 . sp. Itching and soreness in the outer canthus of the right eye, with dimness of sight, sensation

as of sand in the eyes, with much lachrymation and soreness of the lids. N. K.

\* b. s. An intolerable itching in the conjunctiva in the morning, which burns when rubbed. 1st day. Px.

. s. Slight pressure over left eye, lasting a few moments; 1st day. C. G.

(115). s. Pain over both eyes, aching beginning at 12. earlier every day; 4th day. C. G.

. r. Inclination to pain about one inch above the left eye, alternating with pain in the left parotid region, accompanied with pain in the whole left temporal region, worse when touching the spot with the hand; 2d day. S.

. r. Pain in left supra-orbital region, when going to bed, with giddiness; 11 P. M., 2d day. S.

. Over the eye sore pain. \*82.

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### Hearing and Ears

. s. Singing in upper part of brain, momentary; followed by a slight dimness of vision; 10 P. M., 2d day. N.

(120). Cracking in left ear. \*83.

. \*Ringing in the ears. Lesser.

. sp. \*Buzzing in ears. Strumpf.

. \*Deafness. Lesser. a. a. Difficult hearing. Strumpf.

. s. Fullness in ears. 97.

(125). sp. Pressing pain in both ears, (with heat). N. K.

. th. Pain in left ear, later also in the right, but less severe. C. Hg.

. sp.  $\pi$ . Almost immediately after the fourth dose; slight earache for a few hours. L. N.

. sp.  $\pi$ . Earache in both ears, morning getting up. 178.

. b. sp.  $\pi$ . All ear symptoms, like cold in the head, have been on the right side, where the ear is deaf; the left ear occasionally sympathizing. L. N.

(130). r. Slight pain in the left ear; 3d day. W.

. s. Fine stinging in ears, 97; r. stitches in left ear, 53, 205.

. r. In the afternoon, 2 o'clock, on awaking, long deep stitches in left ear, lasting two hours; the same stitches in left upper arm; 2d and 5th day, often the 10th day; the same the 11th, 13th, and 19th day. A. L.

. r. Slight stitches in left ear, followed by a small abscess in the external portion of the meatus auditorius; for some days after the abscess discharged some pus; much itching in the left ear; 25th day. A. L.

. sp. Morning, before rising, felt ten or twelve sharp twinges of pain in the right ear, (perhaps attributable to a thin muslin night cap); 4th day. P.

(135). s. Shooting pain in the left ear; 10 P. M., 3d day. N.

. s. A sharp shooting pain in the left ear. N. K.

. sp.  $\pi$ . External sensitiveness of right ear and temple. 140.

. s. Deep-seated itching in the left ear, amounting at times almost to pain, lasting two days; 4th day. E.

. r. Itching in ear for weeks. 133.

(140). sp.  $\pi$ . All the parts around the ear feel swollen and uncomfortable; slight pain in the (right) deaf ear, extending up into the temple, with external sensitiveness. L. N.

. r. Pain in parotid region alternates with pain above eyes. 116.

. sp.  $\pi$ . Behind the ear, pain from neck. 347.

. Headache extending to the ear. \*82.

### Nose

. Sneezing from smelling squeezed ants. 103.

(145). th. Sneezing and fluent coryza, followed by a severe pain in the vertex, like a stitch from a dull instrument, a little to the left of the middle; near 9 P. 31. The coryza lasted but

fifteen minutes, the pain longer. C. Hg.

. sp. Several days after ceasing to take the remedy, she got a cold in the head, very common to her, but only on the right side of the nose, and affecting the right eye. It lasted two days, then suddenly disappeared without going to the left side, which had always been the case in former attacks. T.

. sp. Cold in the head coming on in the afternoon. 86.

. sp. π. In the evening suddenly attacked with a cold in the head, (right side), without any other symptom of having previously taken cold; passed away in about half an hour. L. N.

. s. Fluent, thin, acrid coryza, causing a burning in the nose; nose sore to the touch, feels as if stopped up. N. K.

(150). \*Catarrh. Lesser.

. \*An old man had something grown inside of his nose. Advised to collect red ants in an earthen bottle, roast them, make a powder and snuff it; he did so, and it cured him completely. The ants were 3-16th of an inch in length, and collected near Pittsburgh. *Relata refero*. C. Hg.

### Face, Lips, and Teeth

. sp. The entire left side of the face and the cheek feel as if paralyzed, as if everything was hanging down loosely. C. Hg.

. s. Pain with soreness in maxillary bone. 162.

. s. Face very hot. 601.

(155). s. Very red cheeks in the evening, which burn so much as to feel uncomfortable; 1st day. Px.

. s. Swelled cheek with toothache. 163.

. sp. π. After taking the first powder, the blister on the face, for which the medicine was given, seemed rather smaller and harder. After the second it was softer and felt sore, and a small pimple appeared on the face. The morning after the third the surface of the blister was irregular. L. N.

. r. Stiffness of the articulation of jaws, cannot open her mouth. 17.

. s. Superior maxillary bone and teeth pain with soreness. 162.

(160). s. Lower lip dry and cracked; 4th day. Soreness at the corners of the mouth; 6th day. H.

. s. Teeth felt elongated; 5 P. M., 2d day. C.

. s. Tearing, drawing, grumbling pain in the two incisors, the superior maxillary bone, right side, with much soreness; 5 P. M. 5th day. C.

. s. Dull pressing pain in a carious tooth, with inflamed gums and swelled cheek. N. K.

. \*Grumbling in the teeth during the afternoon, from draught. Pehrson.

(165). \*Pain in decayed last molar, left side. Pehrson.

. \*Toothache from a draught of air. Pehrson.

. s. Gums inflamed, 163; \*scurfy. Wendel.

### Taste and Tongue

. sp. π. Watery taste in the mouth, very offensive to him. M.

. sp. π. Water tastes badly, sweetish and insipid. 188.

(170). sp. After using with his meal some fat, it being fresh and sweet, he has a long lasting after-taste, which finally turns into a decided rancid taste; 6th and 7th day. C. Hg.

. sp. π. Root of tongue is sore, L. N; to the tip a stinging, 173.

### Mouth and Throat

. sp. Mouth smarts from sour rising. 201.

. s. Sensation of stinging in the palate, worse from eating, smoking, or contact; stinging continued for 2 days, and then extended to the tip of the tongue; 2d day, 12 M. N.

. s. Difficult deglutition, sense of contraction in the oesophagus; food passes with difficulty

and causes pain; sensation continued about 12 hours; 3d day, 12 M. N.  
 (175). s. Slight pain in the right side of the pharynx during empty deglutition; 4th day, at noon. H.  
 . th. In fauces and throat a cold feeling like mint. 714.  
 . sp. Throat smarts from sour rising. 201.  
 . sp. π. Several times she got up in the morning with a very sore throat and earache in both ears. L. N.  
 . sp. π. She had a dry throat all night, could scarcely speak; when she got into a position, in which she could sleep a little, the dryness of the throat woke her out of it. G.  
 (180). \*Sore throat, more on the left side. Pehrson.  
 . \*Sore throat in the morning with much mucus. Pehrson.  
 . s. Dry huskiness and sore feeling in the throat. N. K.  
 . t. Rattling in the throat. 687.  
 . sp. π. When hawking and gargling, pain in the neck. 346.  
 (185). Much mucus with sore-throat. \*181.

### **Hunger and Thirst**

. th. After 9 o'clock, hunger, (something quite unusual at this time), then pain below the knees and in the shins; 20 min. after 9. C. Hg.  
 . t. Violent thirst. 687.  
 . sp. π. All day much thirst, but the water tasted very badly, sweetish and insipid. G.  
 . sp. Aversion to Irish whiskey. 733.  
 (190). sp. π. While eating and chewing, especially when closing the jaws, severe pain in neck. 347.  
 . r. While eating, giddy. 30.  
 . s. After dinner, headache. 77.  
 . s. Worse from eating, stinging in palate. 173.  
 . th. After eating some water soup, (made from scalded rye bread with cream), he all at once becomes very sleepy and falls asleep in his chair; on awaking, does not as usual feel refreshed, but goes immediately to bed and falls asleep at once. C. Hg.  
 (195). s. After breakfast another stool. 257.  
 . s. After supper, headache relieved. 62.  
 . s. After a drink of cold water pain around navel. 237.  
 . sp. π. After drinking tea, copious sweat. 611.

### **Belching and Vomiting**

. It is remarkable how much wind the eggs produce if taken inwardly by a single drachm. Lesser.  
 (200). s. Belching of wind, tasting sour. N. K.  
 . sp. Acrid eructations and rising of fluid from the stomach, tasting like sour food; cause the mouth arid throat to smart; 2d d. St.  
 . sp. π. Frequent belching, without any relief. 610.  
 . sp. Nausea each time after taking a dose. 89, \*90b.  
 . sp. Nausea with headache; 88; r. 49, \*90b., and abating of headache, \*83.  
 (205). r. Nausea in the morning, followed by stitches in left ear, lasting all day; 8th day. A.L.  
 . r. Nausea in the night, and little sleep. 541.  
 . t. Nausea and vomiting. 687.  
 . r. Nausea and vomiting of yellowish bitter mucus in the morning; 6th and 10th day. A. L.  
 . r. Vomiting of green bitter mucus, with headache and stitching in the ear; 9 P. M., 16th day. A. L.  
 (210). sp Vomiting with headache, 89; r. 90.

.sp. π. Vomiting with diarrhoea, in the evening, 252; with cough, 327.

### **Stomach and Hypochondria**

. sp. Oppression and weight in stomach. 216.

. sp. At 6 P. M., 4 hours after dinner, a constant pressure at the cardiac end of the stomach, as if something had lodged there. C. Hg. b.

.s. Severe pain in the stomach during the evening, cramp-like, with passage of flatus from the bowels, which gave relief. N. K.

(215). T. π. Causes warmth and burning in the stomach, acceleration of the pulse, increased urination, increased transpiration, excitement of the sexual organs, a viscous stinking urine, with gouty patients. Voigt. Strumpf.

. sp. Burning pain in stomach, with oppression and weight. Br.

. fl. Inflammation of the stomach and smaller intestines. T. Rabbits dying in 3 to 19 hours. Mitcherlich.

. s. A sensation of heat in the epigastrium, extending over a large space. N. K.

. s. Pain in epigastric region, extending from left to right, then shifting to the top of the head, and followed by creeping down the back; 10 P. M., 3d day. N.

(220). s. Stitching pain in region of liver; again in right hypochondriac region. N. K.

. T. Liver large, pale, putrid, easily broken. 687.

. sp. Dull pain in the region of the spleen. N. K. Same from subsericea. N. K.

. s. Pain as if bruised beneath the short ribs when taking a deep inspiration. Dull pain beneath the short ribs. N. K.

### **Abdomen**

. s. In the bowels great weakness after stool. 263.

(225). sp. r. Had severe pain in the belly, and shuddering chilliness. This happened two evenings in succession. Gf.

. s. Pain in lower umbilical region before diarrhoea. 262.

. s. Continued pain in descending colon; 4th day. H.

. s. Pain in upper hypogastric region, before diarrhoea. 262.

. s. Colicky pain in lower belly. 263.

(230). T. Intestines pale, brownish, distended with gas. 687.

. \*Hardening of mesenteric glands. Zwinger.

. r. Rumbling in the bowels, with a nervous feeling, as from strong coffee; 3d day. S.

. s. Much pain in transverse and descending colon, from incarcerated flatulence; was obliged to rise in the morning on wakening; 6 A. M., 4th day. H.

. s. Rumbling in bowels with diarrhoea. 257.

(235). \*In Peru they use ants for flatulency. Poeppig.

. s. Abdomen, warmth. 607.

. s. Pain as if bruised in the umbilical region, extending across the abdomen, after taking a drink of cold water. N. K.

. s. Itching of the abdomen and trunk, (well marked). 720.

### **Rectum**

. th. In rectum urging like diarrhoea. 247.

(240). r. Painful desire in rectum and anus for stool, which, however, did not pass; 3d day. S.

. r. Pressure in the rectum; 3 days. C. G.

. r. Compelled to get up for stool. Dysenteric feeling; 3d day. S.

. r. Pressure in the rectum, worse in the evening and in bed; several days. C. G.

. s. Violent tenesmus with a second stool; 9 A. M., 4th day. H.

(245). s. Feeling as if the mucous membrane of rectum were thickened and stiff. 259.

## Flatus and Stools

- . th. Small, very fetid flatus, almost putrid, (had eaten for dinner only barley soup and beef.) C. Hg.
- . th. Difficult passage of small quantities of flatus in the morning hours; afterwards diarrhoea-like urging in the rectum. C. Hg.
- . sp. The winds pass from the anus with more force than usual; 3d and 4th day. C. Hg.
- . s. Flatus passing and relieving. 214, 263.
- (250). th. All the evening a sensation as though diarrhoea would set in; this sensation is, however, only in the anus. C. Hg.
- . f. Finally, with much yawning, a sensation as if diarrhoea would set in, followed by a regular stool, the last part of which was thinner, having a peculiar smell, known to the prover, but he could not define it. C. Hg.
- . sp.  $\pi$ . After having a thin evacuation with belly-ache, every morning for a week, without much relief from the eruption, there appeared in the evening, at 8 or 9 o'clock, violent diarrhoea, and vomiting. G.
- . sp.  $\pi$ . In the morning second stool. G.
- . r. Soft, pappy discharge from the bowels in the morning; 2d day. S.
- (255). r. A loose diarrhoeic stool, (after 242), which left a desire for another stool, with an uncomfortable feeling in the anus, as if the passage were not all through, and more must pass; 3d day. S.
- . r. Instead of one (as the rule is) two stools daily for four days. C.G.
- . s. Diarrhoea early in the morning as soon as awaking; compelled to go to stool at once with rumbling in the bowels. Stool soft and painless; another stool, immediately after breakfast, with urging; 4th day. B. a.
- . s. Loose stool, 8 A. M.; 2d day. B.
- . s. Soft, pappy stool in the morning, with inclination to sit at stool; the 3d week. Same every morning to the 20th day, when it was normal again; with the passage a feeling as though the mucous membrane was thickened and stiff. B.b.
- (260). s. Stool papaceous, followed by constriction of the anus; 4th day. H.
- . s. Slight diarrhoea; two small passages, painless, in the morning; 4th day. N.
- . s. Diarrhoea. with some tenesmus; pain in lower umbilical and upper hypogastric regions, before moving the bowels; relieved after stool; 2d day. E.
- . s. Colicky pain in lower part of abdomen, flatus passing relieved but momentarily; followed by passing a soft stool with heat and burning irritation of anus, and a sensation of great weakness in the bowels. N. K.
- . \*Tapeworm. Lesser.
- (265). \*White stools. Pehrson. Comp. 272.
- . \*Diarrhoea after the meals or only during the day, not at night, or day and night, or before midnight. Pehrson.
- . \*Diarrhoea of children. Pehrson.
- . r. Evacuation of bowels with difficulty, but painless, ending with thin faces; 2d day. W.
- . s. Increased constipation for two or three days; 3d day. B. b.
- (270). s. Constipated stool, passed but two small balls after much straining; 2d day, 11 A.M. H.
- . s. \*Was troubled with constipation and sensation of constriction of sphincter ani, relieved of these symptoms entirely; afterwards the diarrhoea set in. E.
- . s. The discharge becomes scanty and pale again, the pain in the back diminished; 6th day. Continue to disappear 7th day, ceased 8th day. N. K.
- . s. Bowels always having been costive are now more regular; 4th and 6th day. K.
- . s. After stool bellyache relieved; great weakness in bowels. 262.

## Anus

- (275). s. Constriction of anus after stool, 9 A. M. ; 4th day. H.
- . th. Only in anus sensation as if diarrhoea would set in. 250.
- . r. Sensation of constriction in the anus; 3 days. C. G. s. After stool. 260.
- . s. Intolerable itching about the anus, relieved by scratching; afternoon, 3d day. H.
- . s. Itching in anus, relieved by scratching; 10 P. M., 2d day. N.
- (280). sp. For the first time in her life, protruding painful piles; they appeared without constipation, lasted a week, and then disappeared, 3d day. T.

## Kidneys and Urethra

- . T. fl. Hyperaemia of kidneys, cylindrical casts and bloody urine, (like in morbus Brighti). Mitcherlich.
- . fl. Acts on kidneys like the Cantharides. Mitcherlich.
- . fl. Urine has acid reaction. Mitcherlich. \*Gravel. Wendt.
- . s. Urine like saffron, bright yellow, passes often; no sediment; 4th day. G.
- (285). T. Bloody urine. 281. T. Viscous stinking urine with gouty patients. 215.
- . T. Increased urination, 215; diuretic. Strumpf.
- . sp. Urinating in the morning, has to get up. 558.
- . s. Double the quantity of urine, even at night; 3d day. B.b.
- . s. Frequent urinations, urine darker; 5th and 6th day. G.
- (290). T. Easier after urinating; they feed again; (rabbits.) 597.
- . \*Paralysis of bladder. Wendt.
- . r. Sensation of pain in the forepart of the urethra; 3d day. W.

## Sexual Powers and Parts

- . Black ants in oil, standing for three weeks, applied to the mouth of the urethra promotes erection, tension of penis and more secretion. Sadduck. Ebn. Baithar.
- . Exciting sexual powers. F. Platerus.
- (295). T. Increases the sexual desire, and their acid odor enlivens the spirits. Lesser. Comp. 215. sp. 300.
- . s. Great sexual excitability; 4th day. E.
- . sp. In the forenoon erections while riding in his carriage; 5th day. C. Hg.
- . sp. Insufficient erections during coitus. 308.
- . sp. Long lasting erections after urinating in the morning. 558.
- (300). sp. In the morning strong erections, with increased sexual desire; 6th day. C. Hg.
- . s. Vivid lewd dreams at night, erection and seminal emissions; 2d, 3d and 4th day. Px. Comp. 538.
- . \*Seminal emissions. C. Hg.
- . sp. \*Weakness of sexual organs. Schreger.
- . \*Scanty ejaculation with incomplete erection. Pehrson.
- (305). th. On ascending the staircase leading to his chamber, he feels that the sexual parts have gone to sleep. C. Hg.
- . s. Hot, red swelling of the prepuce; secretion of smegma much increased; 5th and 6th days; lasting a week. G.
- . sp. A kind of nervous, floating (schwebend) and jerking pain in the left half of penis and region of prostata, very often repeated; 5th and 6th days. C. Hg.
- . sp. Itching on the scrotum; during coition insufficient erection, in the morning the same pain in the occiput as before. C. Hg.
- . \*Uterine complaints. Lesser.
- (310). s. Menses after having always been regular before, appeared rather scanty and pale,

with bearing down pain in back; 3d day; darker 4th day; continued with crampy pains through the hip-joint and pelvis; 5th day. K.

. th. Immediately very violent penetrating itching at the right nipple (of a male). b. C. Hg. Comp. 714.

. \*Lack of milk with nursing women. C. Hg.

### Cough

. s. Irritation in larynx, causes cough. 323.

. \*Hoarseness with a sore throat. Pehrson.

(315). \*There is a small piece of phlegm in the larynx which cannot be brought up by coughing. Pehrson.

. T. Oppression, nausea and vomiting. 687.

. T. Laborious breathing. 597.

. s. Could not breathe for a moment, with stitches in chest. 334.

. r. Sensation of adhesion, drawing a long breath. 332.

(340). sp. A full inspiration pains in chest. 328.

. r. Drawing a long breath, pain in chest, stitching as from adhesion. 332.

. s. Taking a deep inspiration, pain beneath the short ribs. 223.

. s. Cough from irritation in the larynx, with loose expectoration during the day. N.K.

\*Tedious long lasting cough. Pehrson.

(325). \*Cough worse at night and from motion. Pehrson.

\* Cough with both an aching in the forehead, and a constrictive pain in chest. Pehrson.

. \* Violent attacks of cough with vomiting, day and night. Pehrson.

### Chest

. sp. Pain in the chest when taking a full inspiration. N. K. Comp. 332, 437.

. Constricting pain in chest, with the cough. \*326.

(330). s. Pain in lower part of left breast, followed in two minutes by the same sensation in the right; with a continual chilliness down the back and lower extremities; 8 P. M., 3d day. N.

. s. Sudden pain in left lung, followed by a sensation as if falling; 1st day. Px.

. r. After sleepiness in the afternoon, pain in left side of chest, continuing one hour and a quarter; better when walking, worse when sitting and when drawing a long breath, with the crampy stitches and the sensation of an adhesion; 10 P. M., 11th day. A.L.

. r. Stitches in left side of chest on waking in the morning; 16th day. A. L. Comp. 90.

. s. Stitching pain in the right side of chest, could not breathe for a moment; 42 P. M., 4th day. C.G.

(335). \*Pleuritic pains. Strumpf. Pehrson.

. T. Congestion to the chest. 687

. s. Warmth in lower part of chest. 607.

### Heart

. r. Uneasy pain in region of heart, lasting half an hour; 10 P. M., 1st day. W.

. sp. In the afternoon slight palpitation of the heart, lasting about five minutes; 1st day. P.

(340). sp. Fluttering of the heart. 86.

. s. Pulse 92, irregular, some fever; 1st day. Px.

. T. Pulse accelerated, 215. T. Fuller and more frequent. 597.

### Neck

. th. Pressing pain in left side of neck. 16

. fl. In the evening, pains in the neck, insupportable on looking upwards. C. Hg. b.

(345). fl. In the neck, pain before a snow storm. 587.

- . sp. π. In the morning, gargling her throat, when hawking, suddenly a violent pain in the left side of nape of neck, extending down the left arm; could scarcely move it, the worst was above the elbow; abated in the evening in left arm, but went to the right, where it was worse than before; bending her head back, she could scarcely bring it forward again, on account of the pain. The whole neck stiff, and very painful up to back of head, increasing from the least motion. When she wanted to rise from her bed, she had to press both hands behind the ears. She cried out aloud after the least motion. Gf.
- . sp. π. While eating and chewing her food, especially when closing the jaws, she had a severe pain in the left side of the neck, which extended into the back of the head and particularly behind the ear. Gf.
- . sp. π. After sitting up the pain in the neck became worse again, but was relieved by the application of a hot iron. Gf.
- . sp. π. Into the neck pain with the least turn or twist. 477.
- (350). sp. π. The pain less in the arms, worse in the neck and head; now only in left side of neck, where it had commenced. Could lie on right side, but not on the left. Although less pain in right arm, she could not raise it to the head. Chamomilla", in water, relieved it, took about six or seven times, slept a little, and after waking felt better. She also had perspiration, which ameliorated, and slept better than for a long while. Gf.
- . sp. π. Soreness in the neck and up into the head; better by external pressure. Gf.
- . sp. Pain in the neck, Br. More on the left side; when riding in the carriage, as if it would break in two. C. Hg.
- . s. Sensation of stiffness of the neck; same time a stupid feeling in the head, 38.

### Back

- . th. Stitches on left side of back. 714.
- (355). sp. Pains in back and hips (89) increased, 7 P.M., and are of a sharp, shooting character, shooting down the thighs. Same in shoulders and down the arms to the hands and fingers. Sensation of pricking over the skin in the region of the pain. Pain more on the left side than the right, St.
- . s. Small jerks along left side of spine in region of ninth rib, like spasms of a small portion of muscles. N. K.
- . fl. Back pains before a snow storm. 587.
- . s. \*Pain in back. 272.
- . ☞ **Affections of spinal cord.** a.a.
- (360). s. Down the back, creeps, 590, 219; chilliness, 330; along the spine, 498.
- . s. Itching on the trunk. 720.
- . sp. Pain in small of back and sacrum. 39.
- . sp. Severe pains in crest and dorsum of ilium, extending across the sacrum with a sensation as though there was powerful traction at the attachment of the muscles; noon, 7th day. St.
- . sp. Very severe pains across the sacrum and dorsum of each ilium; comp. 400 b.; every movement caused severe pain; could only rise with great difficulty from the chair, or walk, or move the body in any way. The sensation was as if the muscles were strained, and on the point of being torn from their attachment; much pain for a while after going to bed; 5 P. M., 12th day; diminished gradually, but is not entirely gone.; 17th day. St.
- (365). Small but violent stitches, burning, pricking, pressing, first on right nipple, later on left side of back, much more violent. 714.

### Shoulders and Arms

- . sp. In shoulder, shooting pains. 355.
- . s. Shooting pain in region of left scapula, 11- to 12 P. M, 2nd day. N.
- . sp. Pain on inferior part of scapula. 436.

- . fl. Shoulders pain before a snow storm. 587.
- (370). sp. Shoulder blade itching. 577.
- . sp. Itching in left armpit, followed by a soreness; beside this, also a sore place inwardly, 1st day. Continued soreness, 3rd day; very painful in anterior part of left armpit; later the same in the right armpit and more outwardly for several mornings. C. Hg. b.
- . th. When riding in the carriage a sensation in both arms and hands, as if they had gone to sleep; more in the hands. C. Hg. b.
- . sp. In arms pain, 437; shooting to elbows, 436; stitches, r. 132.
- . sp. r. From neck down left arm; in the evening to right; could scarcely move her arm. 346.
- (375). π. Violent itching inside of left arm and hand, followed by a red rash, in stripes like the seams of a glove; afternoon, 7th day. A. L. Comp. s. 720.
- . th. Severe pain in the middle of the left upper arm, like a pinching with dull wooden pincers, coming at intervals and lasting half an hour. C. Hg.
- . th. From elbow to upper arm pain, 380; sp. arm pain, 438; r. left upper arm stitches, 53, 132.
- . s. Twitching in the triceps muscle, left arm; 9 P. M., 4th day. H.
- . sp. π. Upper arm, above left elbow, the worst pain. 346.
- (380). th. Severe pain above the right elbow, on the inner side, increasing in intensity in the direction of the upper arm. C. Hg. b.
- . sp. Rheumatic pain in the right elbow-joint. N. K.
- . sp. Elbow pain, 437; to elbows from arms, 436.
- . sp. Forearms, shooting pain, 436; all along the ulna, 389.
- . r. Biting pain in the left forearm, lasting a short time; 3d day. W.
- (385). Stitching pain in the course of the ulnar nerve down to the left little finger. N. K.
- . s. Rheumatic pain in the right forearm and wrist. N. K.

### **Hands and Fingers**

- . th. The hands pain more, sensation as if asleep. 372.
- . sp. Hand and arm asleep. 557.
- . sp Rheumatic pain in the right wrist-joint and in the course of the ulna. N. K.
- (390). sp. In wrist pain, 435; s. rheumatic pain, 386.
- . s. Burning pain in the left carpal bones; 11 P. M., 4th day. H.
- . s. Shooting pains in the carpal bones while writing, extending down the third and fourth fingers; 9 P. M., 2d day. N.
- . sp. In hands, shooting pains. 436.
- . sp. Since several days a very violent itching in the palm of the left hand. C. Hg.
- (395). r. Hand itching. 375.
- . s. Palms of hands burn, hands are hot. 601.
- . s. Tingling in left fingers. N. K.
- . s. Tearing pain in the middle finger of the left hand; 10.50 A.M., 2d day. C. G.
- . th. For several days in succession burning stitches in the finger ends, first in the left hand, and worse in the evening, then on the right hand, and worse in the morning, the middle finger most affected. C. Hg.
- (400). T. One who gathered ants with bare hands into a vessel, soon observed a great inflammation, redness and swelling of the back of the hands; soon after, suppuration under the finger nails, followed by loosening and falling off of the nails. A lead-wash removed the inflammation. Herz in Nass. Med. Jahrbücher.

### **Hips and Thighs**

- .-b. s. Pain through pelvis as if from one acetabulum to another; 5th day. E.
- . s. Rheumatic pains in both hips from left to right. N. K.
- . s. A severe bruised pain in left hip-joint, so as to interfere with walking. N. K.

- . sp. Pain in the hips (bruised) at night in bed, causing him to change from side to side. N. K.
- . sp. An uneasy painful sensation in the hips and thighs, with a desire to change their position often whilst sitting; 7th day. St.
- (405). sp. Slight pain in hips. 39.
- . sp. Hips pain; increased in the evening. 355.
- . sp. At 7 P. M., slight shooting pains in the hips, shooting down the thighs. 7 P. M.; pains have increased and are more acute and sharp; 10 P. M., 6th day. St.
- . sp. Pain in crest and dorsum of ilium, 307; severe in dorsum of each ilium, 364.
- . s. In hip-joint and pelvis crampy pain, with catamenia. 310.
- (410). s. To lower limbs, from back down, 330; sp. down the thighs, 407; shooting down the thighs, 355; in thighs painful sensation, 404; legs pain, 438.
- . . Bruised sensation of the lower limbs; 4th day. E.
- . sp. Thigh itching near inguinal region. 717.
- . sp. Extensors of legs more painful. 480.

### **Knees, Shins and Feet**

- . sp. Shooting pains in the thighs down to the knees. 436.
- (415). sp. Pain in the knee-joints (rheumatic), most in the right, increased by walking. N. K.
- . sp. Lancinating pain in the left knee-joint, waking him from sleep. N. K.
- . s. Rheumatic pain in the left knee. N. K.
- . th. At half past nine a burning itching in the bend of the left knee, which increased to an extraordinary degree. C. Hg.
- . th. Pain below the knees. 186.
- (420). fl. In the evening, when walking, the right knee gave way under him on account of a severe pain below the knee. The following day the same, and a hindrance in walking, from a similar severe pain in the middle toe of the left foot. C. Hg. b.
- . th. In the shins, pain. 186.
- . s. Lower part of left tibia, pain. 429.
- . r. After sleepiness in the afternoon, stitches in the ankle of left foot; 4th d. A. L.
- . s. Sharp rheumatic pain in both ankles, much increased by walking. N. K.
- (425). sp. He is woke up at 3 A. M. by a cramp in the soles of his feet, particularly in the fore part and under the toes; more in the right foot, less in the left; he had the same when lying on the lounge in a warm room; 4th and 5th days. C. Hg.
- . sp. Late after the proving he is troubled in the night with cramp in both feet, especially in the soles near the toes, and always on a very small spot. C. Hg.
- . s. Cold feet continually. N. K.
- . \*Checked foot-sweat. 493.
- . s. Soon after (432) a burning pain just behind the ball of the first toe of the same left foot; soon after slight pain in the lower part of the tibia of the left leg. H.
- (430). s. Stinging and burning in the left great toe; 11- to 12 P. M., 2d. day. N.
- . st. Severe pain in middle toe of left foot. 420.
- . s. Sharp intermitting pain in the fourth toe of the left foot; 8 P. M., 6th day. H.

### **All the Limbs**

- . th. As if asleep, both arms and hands. 372.
- . th. After 376, very similar pains on various parts of the body lower down. C. Hg.
- (435). sp. Several slight, indefinable sensations in and around the left wrist, followed in ten or fifteen minutes by a pain in the right tendo achillis, at its height after one hour; most in the right upper posterior part of the head. C. Hg.
- . sp. Shooting pains in the thigh, down to the knees; acute pain in the inferior part of the scapula; also shooting pains in the arms extending to the elbows. At 1 P. M. pains more acute;

shooting pains in the hands; forenoon, 7th day. St.

. sp. Pain in the elbow and wrist of right side; darting, sticking pains in the arm, neck and chest of right side. Br.

. sp. Pain in arm and leg of right side; pains mostly in the joints; deep-seated pains as though they were in the bones; the pains shifted about and did not remain long in one spot; relieved by smoking, aggravated by study and sitting quietly; 3d day. Br.

. s. Tearing and drawing in the left arm and leg from above downwards; 10 P. M., 3d day. N.

(440). s. Aching of the bones, with a feverish state of the system, with fullness and dullness of the head. N. K.

. \*Gout. Lesser. \*Gouty pain in limbs (applied external). Strumpf.

. \*Arthritis vaga. Schreger.

. \*In chronic gout and stiffness of joints, ants scalded and the water used as a hot bath. a. a.

\*As a steam bath. Hufeland.

. \*Old atonic gout. Rink, Schaub, Wendt, Voigt, Schreger.

(445). fl. \*Stiffness and contraction of joints. Schreger.

. \*Rheumatic or gouty pains. Schreger, Strumpf.

. \*In old local or general rheumatic affections; internal or external. Schreger, Strumpf.

. ☞ **Rheumatism appears suddenly, mostly in the joints with characteristic restlessness; the patients desire motion, although it makes pain more acute.** C. Hg.

#### Positions and Motions

. sp. Lying on a lounge in a warm room cramp in soles. 425.

(450). sp. π Could lie on the right side, not on the left. 350.

. sp. Whilst sitting after a walk, pain in hips increase. 451.

. sp. Sitting quietly aggravates pain. 438. B.

. Sitting up, headache worse. \*906.

. r. Worse when sitting, pain in chest. 332.

(455). sp. π. After sitting, pain in neck worse. 348.

. s. When writing, dizzy. 29.

. s. While writing, pain in carpal bones. 392.

. sp. π. Bending head back, could scarcely bring it forward. 346.

. s. Worse when stooping; headache. 76.

(460). r. Attempting to rise, giddy. 28.

. sp. Rising with difficulty from the chair. 364.

. sp. π. Could not raise right arm to the head. 350.

. r. When walking, pain in chest better. 332.

. s. Interferes with walking, pain in hip-joint. 402.

(465). s. Walking increases pain in ankles. 424.

. fl. When walking, pain in knee. 420.

. sp. Walking increases pain in knees. 415.

. fl. When walking, hindrance from pain in middle toe. 420.

. sp. Walking with difficulty. 364.

(470). sp. Walking against the wind affects him. 577.

. th. Ascending staircase, sexual parts asleep. 305.

. \*Complaints from over lifting. Lesser.

. sp. After unusual exertion, headache. 89.

. sp. Muscles painful when exercised. 480.

(475). sp. To move the body in any way is difficult, on account of the pain in sacrum. 364.

. sp. Every movement caused severe pain. 364.

. sp. π. From the least turn or twist of the body, it darted like lightning through the body into the neck and up into the head. Gf.

- . sp. ir Worse from the least motion. 346.
- . Motion increases cough. \*325.
- (480). sp. Indisposition to exercise the muscles, they feel painful when exercised, especially the extensors of the legs. N. K.
- . sp. π. She had a constant desire to move, but made only very slight motions, as the slightest motion aggravates the pain. Gf.
- . sp. Desire to change position often, whilst sitting. 404.
- . sp. Changes from side to side in bed, on account of pain in hips. 403.

### Nervous Symptoms

- . s. Agility, more than usual. 6.
- (485). sp. At 1 P. M., very frequent yawning; has to stretch out his limbs; all symptoms worse in the open air. C. Hg.
- . s. A wretched feeling of the whole system, causing one to gape and stretch. N. K.
- . T. Restlessness. 597.
- . fl. Immediately had a feeling of discomfort, and felt very badly all day. C. Hg.
- . fl. Indisposed in the evening. 24.
- (490). r. Nervous feeling as from strong coffee. 232.
- . sp. Nervous shuddering and vomiting, with headache. 89.
- . T. Metastasis of gout; a patient with chiragra, (gout in the hands), used what is called an ant-shirt, (a common night-shirt, rubbed with the aromatic oil of anise seed, and buried for twenty-four hours in an ant-hill). In less time than an hour, it caused a sensation over the whole body as if a cool air was blowing on it, followed by an anxiety, while he gained the ability to move all his limbs; but the agony increased with a dullness of the head, fantasies, delirium, finally ending in violent raving. After the disappearance of these symptoms, a stupor followed, lasting eight days. Hufeland.
- . \*A long, horribly maltreated chorea lessened as soon as the foot-sweat, which had been checked, was brought on again by putting the feet in a bag with living ants and creating steam with hot stones. Romberg.
- . \*Spasms. Old School. Internal. Strumpf.
- (495). r. Compelled to sit down, 502; had to sit down; black before eyes, 92.
- . fl. Giving way, right knee. 420.
- . th. Feels heavy and bruised. 523.
- . s. A languid feeling of the whole system, with pain in all the limbs, accompanied by chills and horripilations along the spine. N. K.
- . sp. π. All day weak and languid, no inclination to do anything. Gf.
- (500). sp. \*Great lassitude and prostration. Strumpf.
- . r. Very weak in the morning; 11th day. A. L.
- . r. In the evening at 8 o'clock, attacks of faintness, lasting some minutes; everything is black before the eyes; she is compelled to sit down; 5th day. A. L.
- . \*Strengthens the nerves. Lesser. \*Faintings. Strumpf.
- . sp. General weakness of the whole muscular system; muscles feel as if paralyzed. N. K.
- (505). \*Limbs lame. Russian ant bath.
- . \*Paralysis. Lesser. a. a. Paralyzed limbs. Schreger.

### Sleep

- . fl. Yawning before stool. 251.
- . sp. Yawning very frequent; at 1 P. M. 485.
- . s. Gaping and stretching. 486.
- (510). sp. Dull, sleepy feeling, with heaviness of the eyelids, and inability to study. Br.
- . th. Sleepy after eating. 194.

- . r. In the afternoon great sleepiness for half an hour; 3d day. A. L.
- . r. Sleepy in afternoon; 9th day. A. L.
- . r. Sleepy in afternoon. 332. 14th day. A. L.
- (515). fl. Sleepy and tired in the evening. 24.
- . s. Great sleepiness in the evening while reading; removed 2d day. W.
- . Sleepy in the evening; 4th, 5th and 13th days. A. L.
- . s. Sleeping easily in the evening; 3d day. G.
- . th. On awaking from sleep in chair, he is not refreshed; goes to bed and falls asleep at once. 194.
- (520). r. Going to bed, pain over eyes. 117.
- . sp. After going to bed, much pain in sacrum. 364.
- . sp. π. Could go to sleep, if she could get in the right position. 179.
- . th. He is disturbed several times during the night by the restlessness of the children, but each time he easily falls asleep again, which is very unusual; in the morning he is dull, feels heavy and bruised. C. Hg.
- . sp. Although he went to bed at one o'clock, he woke at three and felt as if he had enough sleep; after several weeks. C. Hg. Comp. 523, 552.
- (525). r. Slept well, 1st day ; 3d to 4th day. A. L.
- . s. Slept well during the night; 2d to 3d day. B. a.
- . r. Very wakeful after going to bed; 1st day. W.
- . r. Restless night; sleep much disturbed; 2d Lo 3d day. A. L.
- . r. Restless sleep at night; 4th to 5th day, 6th and 10th day. A. L.
- (530). s. Wakefulness all night, with very little sleep; 1st day. Sleepless; 3d to 4th day. B. a.
- . s. Alternation of sleep and wakefulness very regular every night; 1st to 4th day; from the 8th day to the 15th, regular alternations of sleepless nights and profound sleep. B. a.
- . s. One night getting to sleep with great difficulty and waking often during the night, the next night the sleep is quiet and profound; 2d week. B. a.
- . s. Sleeplessness the first twenty-four hours, with sleeping and waking alternately afterwards; 3d to 9th day. B. b.
- . sp. A Brunswick sausage, which had become somewhat mouldy, was left in his sleeping room, and perhaps caused the following dream: He saw a funeral procession with a large coffin and many small ones; the persons had died from scarlet fever. The procession almost came up with him, and stopped at the street corner; as he attempted to get out of the way of the wind, which blew towards him from the procession, he woke up. C. Hg.
- (535). r. Lewd dreams at night; 3d day. W.
- . r. Dreams the first three nights not unpleasant. C. G.
- . s. Vivid, lewd dreams at night. 301.
- . s. Lewd dreams at night, with erections; 3 days. G. Comp. 301.
- (540). sp. π. All night dry throat, woke her out of sleep. 179.
- . r. Very little sleep during the night, with much nausea ; 3d day A.L.

### **Complaints at night**

- . r. In bed, worse pressure in rectum. 243.
- . At night cough. \*325.
- . s. Breast pains. 330.
- (545). sp. π. Passed a dreadful night; although the pains had left her on the morning before, and she had been free from it even during the first part of the evening, the pain suddenly returned with violence, only lessening somewhat after midnight. Gf.
- . sp. Cramp in both feet. 426.
- . sp. Wakening at 3 A. M., with cramp in soles. 425.
- . r. Hysterical attack. 17.

. s. During the night chilly sensation. 594.  
(550). sp. Night in bed pain in hips. 403.  
. sp. From 3d to 4th day; aroused by a patient, he feels as though he had slept enough; can do with less sleep. C. Hg.

### Awaking

. sp. \*His former habit to wake up early, and feels that he has had sufficient sleep, returns again. C. Hg.  
. r. *When awaking in the morning*, headache, 90; vomiting, with headache; 15th day. A.L.  
. Awakens with headache in the forehead; 5th day. A.L.  
(555). sp. π. Morning when awaking, pain in eyes, 98; r. stitches in ear, 132.  
. sp. Waking from sleep, pain in knee. 416.  
. sp. On awaking, left hand and arm have gone to sleep; on getting up the same dull, "thick" headache again, at the posterior upper and inner part of head; 4th day. C. Hg.  
. sp. In the morning after getting up to urinate, he lies down again and has long lasting erections. 4th day. C. Hg.  
. s. Night more urinating. 288.  
(560). r. Wakens feeling very weak; 17th day. A. L.  
. f. Next morning he does not feel like getting up; he has scarcely aroused himself when he drops off to sleep again. This happened every morning for more than a week. C. Hg.  
. sp. Night itching on shoulder blade. 717.  
. sp. π. Disagreeable sweat during the night, woke up with clammy skin. M.  
. sp. π. The powders taken at night seem to have had the most effect. L. N.

### Mornings

(565). s. In the morning dizzy, 29; r. pain in forehead, 50; s. over eyes, 115; sp. in occiput, 308; headache, 66; before rising earache, 90; sp. π. after it, 178; sore throat, 178, \*181; r. nausea, 205; and vomiting, 208; s. obliged to rise on account of pain in colon, 233; th. small flatulency, 247; sp. π. another stool, 253; r. soft discharge from bowels, 254; s. diarrhoea like urging, 247; early diarrhoea, 257; stool, 259; diarrhoea, 261; sp. erections, 300; itching in arm-pit, 371; th. right finger ends stitches, 399; dull, heavy, bruised, 523; r. very weak, 501; sp. lies down again, 558; fl. sleepy, 561.

### Forenoon

. th. Until 9 A. M. exhilarated, 16; after 9 A. M. hunger, 186; burning, itching in knee, 418; r. 11 A. M., headache and nausea, 49; sp. 10 A. M., most pain, 39; erections, 297.

### Day

. s. After twelve, headache, 62; fl. all day long, headache, 79; s. during the day loose cough, 323; sp. itching on shoulder-blade, 717; fl. here and there sore feeling, 661.

### Afternoon

. ☞ **Most symptoms, 2 to 4 P. M.** C. Hg.  
. r. Afternoon headache: s. till 10 P. M., 46; sp. 4 P. M., head symptoms increased, 39; 5 P. M., pain in forehead, 39; dull headache, 51; headache, 78, 86, 89; r. stitches in ear, 132; toothache, \* 164.  
(570). sp. Four hours after dinner, pressure in stomach. 213.  
. s. Itching in anus, 278; sp. palpitation of heart, 339; 1 P. M., pain in hips increased, 355; r. sleepy, 332, 423, 512, 513; itching on arms and rash, 375.

### Evening

. fl. Morose, disinclined to work, 25; r. headache, 80; s. 12 M. till 10 P. M., 76; r. 11 P. M., pain over eyes, 117; th. 9 P. M., coryza and pain in vertex, 145; sp. π. sudden coryza, 148; s. red cheeks, burning, 155; r. 9 P. M., vomiting of little mucus, 209; s. pain in stomach, 214; sp. 6 P. M., pressure at cardiac end of stomach, 213; sp. π. two evenings in succession, pain in belly, 225; th. sensation as if diarrhoea would set in, 250; sp. π. diarrhoea and vomiting, 252; r. pressure in rectum worse, 243; fl. pain in neck, 344; sp. 7 P. M., pain in back increased, 355; sp. itching on shoulder-blade, 717; th. finger ends left hand, stitches, 399; fl. pain in knee, 420; indisposed, nervous, 24; r. eight o'clock, faintness, 502; s. early sleepy, 518; r. sleepiness, 516; sp. π. soon after tea, copious sweat, 611; sp. affected by the wind, 577; 10 P. M., increase of shooting pains, 407.

### Warmth and Cold

. sp. π. Hot iron relieved pain in neck. 348.  
. s. After dressing, dizzy. 29.  
(575). sp. All symptoms worse in the open air. 485.  
. Draught of air made toothache. \*166, \*164.  
. sp. Several weeks after, he is more affected by the cold than usual, especially when walking against the wind in the evening. C. Hg.  
. s. Very susceptible to cold; great liability to take cold and bad effects from it. N. K.  
. sp. Recurrence of the pains several days after, upon taking a slight cold. Br.  
(580). s. *Great liability to take cold.* N. K.  
. sp. During and after washing with cold water, headache increases. 66.  
. s. After cold water, pain around navel. 237.  
. ☞ **Burning pains renewed by washing with cold water.** C. Hg.  
. sp. π. By washing, pain in eyes better. 98.  
(585). sp. On the first and second day he could not bear as well the cold of the weather. C. Hg.  
. ☞ **Consequences of cold and wet; cold bathing; damp weather.** C. Hg.  
. fl. Before a snow storm pain in the aponeurosis and muscles of the head, neck, shoulders and back. C. Hg. b.

### Chills, Fever, and Sweat

. T. Sensation over the whole body as if a cool air was blowing on it. 492.  
. th. Cold feeling in fauces and throat like mint. 714.  
(590). s. Continued creeps down the back; 3d d. N.  
. s. Chilliness down the back. 330.  
. s. Chilliness and horripilations along the spine. 498.  
. s. Cold feet. 427.  
. s. Continued chilly sensations during the night, 11 to 12 P.M. N.  
(595). sp. π. Shuddering chilliness with pain in belly. 225.  
. T. South American hunters state that the bites of scolopenders, burning like fire, were soon well again; the sting of a scorpion caused fever, swelling of glands, and long-lasting pain. The ants caused cold, shaking chills. C. Hg.  
. T. Juice of ants, given to a horse or an ox, caused after fifteen minutes great restlessness, a fuller and more frequent pulse, great heat over the whole body and a laborious breathing; after one hour they become easier, urinate, and commence to eat again. Rysz.  
. sp. Feverish heat all over the body, mostly in the scalp. N. K.  
. th. Cool burning like snow flakes in eyes. 102.  
(600). sp. Heat with pain in ears. 125.  
. s. Hand and face very hot; the palms of the hands burn; 1st d. Px.  
. s. Feverish state of system, aching of the bones. 440.

- . r. Heat in head. 52.
- . sp. Burning in stomach. 216.
- (605). s. Heat in epigastrium. 218.
- . s. Heat and burning irritation of anus. 262.
- . A feeling of warmth in the lower part of chest and abdomen. N. K.
- . General sweat. Russian ant-bath.
- . T. Copious sweat breaks out, after it feels worse. 687.
- (610). sp. π. Perspired for about half an hour, but without the slightest amelioration of pain in arm. Frequent belching also without any relief. Gf.
- . sp. At noon, after drinking tea, she had again a copious sweat, without any relief. Gf.
- . ☞ **Sweat without amelioration.** C. Hg.
- . sp. π. Perspiration after Chamomilla, which relieved. 350.
- . sp. π. Clammy skin, woke her up. 563.
- (615). sp. - Disagreeable sweat during the night. 563.

### In Attacks

- . sp. Often repeated stitches. 99.
- . th. At intervals pain in arm. 376.
- . sp. Often repeated pain in penis. 307.
- . s. Intermitting pain in toe. 432.
- (620). s. Occurrence of tooth and other pains at regular periods of the day for about 5 days, when it gradually disappeared. E
- . s. Earlier every day, pain over eyes. 115.
- . Attacks every day earlier. \*82.

### Direction

- . sp. From within out, in temples. 58.
- (625). sp. Pain in head extending upwards. 64.
- . sp. Down the arms and fingers. 355.
- . s. To little finger down from ulna. 385.
- . s. Downward through arm and leg. 419.

### Sides

- . *Pains left then right*; \*right then left. C. Hg.
- (630). th. Left to right ear, 126; s. pain in hips, 401; s. breast pain, 330; s. pain in epigastrium, 219; sp. armpits itching, 371; sp. π arms, 346; th. left in evening, then right in morning, finger ends, 399.
- . *Right to left*: th. Itching on nipple, 714; fi. right knee and left middle toe, 420; sp. left wrist and right heel, 435; right orbit and left ear, 101.
- . *Right Side*: s. Frontal region, headache, 47; sp. from temple into head shooting, 51; sp. temporal region, pain, 58; s. *boring*, 59; sp. upper posterior head, 435. *Left*: r. temporal region pain, 59; temple, \*83; th. vertex, pain, 145; nail feeling, 65; s. sick headache, 62, 77, \*82; s. around the side of head running bubble, 54.
- . *Right Eye*: r. Twitching, 109; sp. orbit, pain, 101; sp. eye affected by coryza, 146; sp. eye, itching and soreness, 113. *Left*: s. Eyeball shooting, 100; s. pressure, 114; sp. over it, stitch, 99; r. above it, pain, 116, 117.
- . *Right Ear*: sp. Aches in the morning, 134; sp. π. pains, 140; *Left*: cracking, 83; r. stitches, 53, 132, 133, 205; s. shooting, 185, 136; r. pain, 130; sp. 101; s. itching, 138; r. abscess, 133; r. parotid region, pain, 116.
- (635). *Right Side*: sp. π. Coryza worse, 129; sp. catarrh, 146; s. supramaxillary bone, pain, 162; s. pharynx, 175; s. hypochondriac region, pain, 220. *Left*: ep. face as if paralyzed, 152;

molars pain, \*165; sore throat, \*180; sp. half side of penis, pain, 307.  
 . *Right Chest*: s. Pain, 334; sp. th. nipple itching, 714. s. *Left breast*, pain, 330; s. lung, 331; r. chest, 332; stitches, S 90.  
 . *Right Side of Neck*: sp. Pain, 437. *Left*: sp. π. nape of neck, violent pain, 346; severe pain, 347; side of neck, th. 16; sp. π. 350; sp. 352; th. back stitches, 714; s. spine, jerks, 356; sp. shoulderblade, itching, 717; s. scapula, pain, 867; sp. armpit, itching, and sore, 371.  
 . *Right Arm*: Pain, 437. *Left* upper arm, pinching pain, th. 376; r. upper arm, stitches, 53; s. triceps, twitching, 378; s. arm, pain, 419; r. arm, stitches, 132; itching, 375.  
 . *Right elbow* pain, th. 380, sp. 381, 437; s. forearm and wrist, 386; sp. wrist, 389, 437. *Left forearm*, pain, 384; s. ulna, stitches, 385; sp. wrist, several sensations, 435; sp. hand asleep, 248; sp. palm, itching, 394; s. carpal bones pain, 391; middle finger, 398; s. fingers, tingling, 397.  
 (640). *Right knee* pain, fl. 420, sp. 415; tendo achillis, sp. 435; foot cramp, 425. *Left hip*, bruised, s. 402; leg, pain, s. 419; thigh, itching, sp. 717; knee pains, sp. 416, s. 417; knee bend, itching, th. 418; ankle, stiches, r. 423; ball of big toe pains, 429; stinging, 430; fourth toe pains, 432; all toes, fl. 420.  
 . sp. π. All the ear symptoms, including the cold, have been on the right side, the left occasionally sympathizing. L. N. Arm and leg pain, sp. 311.  
 . sp. Pain more on left than right side; 1st d. St. 355.

### Sensations Reviewed

. th. Sexual parts asleep. 305.  
 . s. Bubble bursting and running around. 54.  
 (645). s. Sensation as if falling in left lung. 331.  
 . sp. As if muscles were strained to be torn from the point of their attachment, 364; traction, 363.  
 . sp. Like lightning up in the neck. 477.  
 . sp. Stitch, violent, like lightning over left eye. 99.  
 . T. Electric jerks in the paralyzed limb. Russian ant-bath.  
 (650). s. Spasms of small parts of muscles, jerks. 356.  
 . th. The same sensation, as in the knee, 418, which is neither an itching nor a burning, nor a pressure, but a union of the three, on many different parts of the body, now here, now there. C. Hg.  
 . sp. The pains gradually diminished since the 8th d. St.  
 . r. Cessation of all symptoms; the 25th d. A. L.  
 . Gradually increasing pain in head. \*82.  
 (655). \*Neuralgic pain. Voigt. Strumpf.  
 . s. Creeping down the back. 219.  
 . th. Cold feeling as from mint. 16.  
 . th. Here and there on skin burning on small spots. 709.  
 . s. Burning pain, (same prover), same pain again. 391.  
 (660). sp. Burning sensation with the stitch. 99.  
 . t. More or less during the whole day a kind of sharp, corroding, sore feeling or painfulness, here and there. C. Hg. b.  
 . sp. Bruised pain in hips. 403.  
 . sp. Soreness after itching. 371.  
 . sp. Sore place inwardly in armpit. 371.  
 (665). th. Pressing pain in left side of neck. 16.  
 . th. Pressing nail, headache. 65.  
 . sp. Boring pain in orbit. 101.  
 . th. Pinching, like with dull wooden pincers, in arm. 376.

- . \*Cutting pain in head. \*82.
- (670). s. Stinging and burning. 430, etc.
- . th. Stitches, like with a dull instrument. 145.
- . r. Stitches in ankle. 423.
- . sp. As if the stitch were passing around something. 99.
- . sp. Sticking pain in arm. 437.
- (675). sp. Shooting in hips and thighs. 407.
- . sp. Shooting in arms, thighs, etc. 436.
- . sp. Sharp, shooting character of pains. 355.
- . s. Shooting in scapula. 367.
- . s. Shooting in carpal bones. 392.
- (680). sp. Darting pain in arm. 437.
- . sp. Lancinating in temples. 58.
- . r. Stitches in chest, drawing a long breath. 332.
- . th. Here and there itching, burning. 651.
- . fl. Here and there, sore feelings. 661.
- (685). sp. Shifting about, pain. 438.
- . sp. On a small spot cramps. 426.

### Tissues

- . T. An anaemic woman died from the effects of an ant-vapor-bath. She had great congestion of the head and chest; violent thirst, *to quench it she received nothing but whiskey*; a copious sweat, which would not make its appearance before, broke out; oppression, nausea and vomiting followed; she begged earnestly to be removed, then became unconscious, and, with rattling in the throat, she died in three-quarters of an hour. Unusually rapid decomposition of the body took place; especially on the outer surface, which was full of large blisters filled with putrid ichor. The body swelled to an unshapely mass. The brain turned out a soft mass (3d day of August); intestines pale, brownish, much distended with gas; the liver large, pale, putrid, and easily broken. Everything was paid and bloodless. Martini. Killed by heat, *Formyl acid*, and the whiskey. C. Hg.
- . sp. In bones, deep seated pains. 438.
- . sp. In joints most pain. 438.
- (690). sp. \*Nodes around joints, internally and externally. Schreter, Voigt, Strumpf.
- . fl. Aponeurosis and muscles pain. 587.
- . \*Chronic anasarca. Schreter.
- . \*Watery swellings. Strumpf.
- . \*Dropsy. Strumpf.
- (695). \*Cachexies. Lesser.

### Touch

- . r. Worse when touching the painful spot in temples or parotid region. 116.
- . s. Worse from contact, stinging in palate. 173.
- . fl. Combing betters headache. 79.
- . Scratching relieves itching. s. 279, sp. 717.
- (700). sp.  $\pi$ . Has to press both hands behind the ears to rise from bed. 346.
- . sp.  $\pi$ . External pressure betters pain in neck. 351.
- . ☞ **Pressure relieves the pain.** C. Hg.

### Passive Motions

- . th. Riding in carriage, arms asleep. 372.
- . sp. Riding in carriage, pain in the neck. 352.

- . sp. While riding in carriage, erections. 297.
- . \*Dislocations. Lesser.
- . \*In all kinds of contusions, a popular remedy. Strumpf.
- . \*Atrophy after wounding. Lesser.

### Skin

- . th. Here and there on the skin, a pressing, burning sensation, on small, but not sharply defined places. C. Hg.
- (710). sp. A sensation of pricking over the skin in the region of the pain; 1st d. St.
- . T. Itching of the (paralyzed) limb, with redness of the skin, and subsequent scaling off of the epidermis, is the first good sign of a beneficial effect after exposing the limb to the influx of an ant-hill. Schreter.
- . T. Violent itching and burning. Russian ant-bath.
- . th. Itching and burning in the neck. 16.
- . th. Small stiches but violent burning, pricking, pressing, particularly in the region of right nipple, as from nettles, but without the long continued sensation of an after-burning; later the same on the left side of the back and much more violent; still later, the same sensation on other parts of the body; after 30 minutes a cold feeling in the fauces, as from mint drops, and his mind unusually excited; 1st d. C. Hg.
- b. Penetrating itching on the right nipple. 311.
- (715). sp. The itching still continues the second day, and the feeling of soreness is increased by scratching. C. Hg.
- . sp. Itching in palm of hand. 394.
- . sp. In the evening, night and the following day a violent itching on the left shoulderblade and on the left thigh near the inguinal regions; it comes again and again, and is each time relieved by scratching; 6th and 7th days. C. Hg.
- . sp. Itching, with pricking pain in forehead. 55.
- (720). s. Itching of the scalp, arms, abdomen and the whole trunk and head, (this symptom was well marked); the 1st d. P±.
- . r. Violent itching on inside of left arm and hand, followed by a red rash. 375.
- . *Form. ac.* Immediately after inoculation a severe pain, causing for several hours great restlessness, burning, redness and swelling, which, however, lessened and disappeared in a few hours. Landerer.
- . *Form. ac.* When animals were inoculated with it it acted less than with human beings; the redness, which appeared at once, disappeared very quickly, and there was no external perceptible pain. Landerer.
- . T. Wounds from the stings of ants are, in most cases, but slightly swollen, a little erythematous, but cause a burning sensation similar to that by stinging nettle. In the East and West Indies they are very painful, with formation of blisters. Hasselt. Vol. II, p. 30.
- (725). T. *Atta cephalodes*, an ant in South America. If it bites men the wound is very painful, soon inflames, and often forms an ulcer. Hasselt.
- . T. Surface after death full of large blisters, filled with putrid ichor. 687.
- . Concentrated *formyl acid*, one drop, causes on the skin unbearable pain, swelling, white spot, and lastly a painful ulceration; same as if the spot had been touched by a red hot iron. Liebig.
- . r. Red rash in stripes like seams of a glove, after itching. 375.
- . T. Suppuration under the finger nails, followed by loosening and falling off of the nails. 400.
- (730). \*Itch, Lesser; \*cold tumors, a.a.; \*goitre, a.a.; \*leprosy, Lesser.

### Other Drugs

- . sp. Drinking coffee increases the headache. 66.
- . sp. π. Nothing helped until she applied a mustard plaster, when the pain was somewhat alleviated. Gf.
- . sp. On smelling Irish whiskey (which contains a little kreosote) he gets a decided aversion to it. C. Hg.
- . s. *Merc. corrosivus* stopped all the symptoms: 284, 289, 306, &c.
- (735). sp. π. After smelling *Camphor* the pain over the eyes was relieved. She inhaled ether, which relieved the pain in the neck. Gf.
- . sp. *Chamomilla* relieved the pain in arm and neck. 350.
- . *Complementary to chamomilla*. C. Hg.
- . \*In cases where *Belladonna* disagrees. C. Hg.
- . s. Worse from smoking, stings in palate. 173.
- (740). sp. Smoking relieves pain. 438, &c.

(Constantin Hering, M.D., *Materia Medica; with a Pathological Index*, Boericke & Tafel, Philadelphia 1873, Formica, p. 208-240)

## 1877 - Timothy F. Allen

*Formica rufa*, Linn.

*Class*, Hymenoptera. *Common name* (Fr.), Fourmi fauve des bois.

*Preparation*, Tincture of live ants.

**Authorities.** **1**, C. W. B. took 1 drop of 30th dil., *N. Am. J. of Hom., N. S.*, 1, p. 486; **2**, A. H. C. took same; **3**, J. P. H. took 1 drop of 3d dil.; **4**, W. H. H. N. took 1 drop of 6th dil.; **5**, same, took 1 dose of 30th dil.; **6**, C. W. B. took 1 drop of 30th dil.; **7**, same, took 1 dose 200th (Jenichen); **8**, W. W. took 1 dose 200th (Jenichen); **9**, C. G. took 200th dil.; **10**, same, took 30th; **11**, J. R. E. took 1 dose 30th; **11b**, same repeated; **12**, W. L. G. took 1 dose 30th dil.; **13**, Miss B., aged 35, took 200th (Jenichen); **14**, C. Hering, *N. Am. J. of Hom., N. S.*, 2, p. 22, effects of inhalation of Formic ether; **15**, same, effects of inhalation of Formyl acid; **15b**, same, took several drops of Formyl acid; **16**, N. Koller, effects of inhalation of *Spiritus formicarum*, *ibid*; **16b**, same, took several drops; **17**, J. A. Stiles took of *Spiritus* repeated doses of 4 to 7 drops, on first, second, sixth, and seventh days, *ibid.*; **18**, Ch. A. B. took drop doses, then 30 and 60-drop doses, *ibid.*; **19**, effects of *Spiritus Formicarum* given to a man for rheumatic pains, *ibid.*; **20**, a young lady took *Spiritus Formicarum* several days, *ibid.*; **21**, a lady took 3 drops first day, 6 drops second day, and more fourth day, *ibid.*; **22**, L. N., effects when taken for a blister on face, *ibid.*; **23**, N. Koller took tincture of *Formica subsericea*; **24**, E. W. Berridge, effects of bite of "*Formica rufa*" (Australian black ant), *N. Eng. Med. Gaz.*, 9, p. 402; **25**, C. Hering, *N. Am. J., N. S.*, 2, 21 (Dr. Herz, *Nass. Med. Jahrb.*, 1859 and 1861), effects of gathering ants with bare hands; **26**, C. Hering, *ibid.* (from Martina), an anæmic woman died from the effects of an ant vapor bath.

### MIND.

#### Emotional.

Mind unusually excited (after thirty minutes), [14].

An exhilarated condition, almost like that produced by champagne, began after the pain in the vertex had somewhat abated, and continued until after 9 A.M.; at the same time, a cold feeling inwardly when inhaling (as from mint), [14].

All day very happy and inclined to be jolly (second day), [7].

During the day remarkably happy and able to study; everything seemed easy to be accomplished (second day), [6].

Same happy state of mind and body, but easily depressed and by slight causes this happy state was changed for a short time to despondency; sudden, but momentary spells of unhappiness; everything looks dark (mentally), (third day), [6].

Easily depressed; things do not look as cheerful as on yesterday and before; little things cause lowness of spirits, yet soon return to cheerfulness (forty-fifth day); decidedly irritable and low-spirited without any cause (forty-sixth day), [1].

Sudden and unexpected return of sense of mortification and grief, with vivid recollection of circumstances long since passed, which had caused great mortification and pain, and which had rendered several years of his life unhappy; this was caused by the transactions of a near relative; this grief continues, and manifests itself whenever he is not occupied (after several weeks), [1].

Irritable feeling, with disposition to become angry easily and at slight things (first day), [18].

Morose and disinclined to work, fearful, and apprehensive, all the evening, [15].

#### Intellectual.

(10) Remarkable and unexpected activity of the mind during the day, with absence of the usual dulness and sleepiness (second day), [1].

Unable to study long at night (first day), [12].

She begged earnestly to be removed, and then became unconscious, and with rattling in the throat died in three-quarters of an hour, [26].

## **HEAD.**

### **Confusion and Vertigo.**

Dull, confused sensation in the head, which continued for twenty minutes (fifteen minutes after first dose); same sensation, but more distinct (after second dose); still more distinct and of longer duration (after third dose), (first day), [17].

Dizziness in the morning, after dressing, when writing (second day), [1].

Inclined to be giddy while eating (second day), [7].

Giddy, on attempting to rise, at 4 A.M. (third day), [7].

The head symptoms more marked than formerly; slight vertigo; confusion of ideas; difficulty of thinking (after fourth dose), [17].

### **General Head.**

Great congestion of head and chest, [26].

A stupid feeling in the head, with a sensation of stiffness in the neck at the same time, [23].

(20) Dulness of the head, and pressure on both sides between the temples and ears, [14].

Heaviness of the head, and a sensation as if the brain were too large and heavy (first day), [5].

Fulness and dulness of the head (part of S. 92), [23].

Headache daily, from 12 M. till 10 P.M., worse when stooping, [10].

Headache all day long, better after combing, [15b].

Headache in the posterior upper and inner part of the head, increased by drinking coffee, and each time during and after washing with cold water, in the morning (after a dose), (second day), [16b].

Headache, with nausea, [16b].

Headache, with vomiting of yellowish, bitter mucus, and stitches in left side of chest, in the morning when waking (fifteenth day), [13].

After a day of unusual exertion in the garden, had a severe sick headache, with nervous shudderings and vomiting; is subject to these sick headaches after overfatigue, but this was more severe than usual, and accompanied by shooting neuralgic pains in the temples, which she never had before; in the afternoon (fifth day), [21].

Headache, with occasional fluttering of the heart, in the afternoon (sixth day), [21].

(30) Dull headache in evening (ninth day), [13].

Dull pain in the head (commencing at the base of the cranium and extending upwards), most in the temporal regions, [16b].

Dull pain in the whole head, with occasional boring pain in the right temporal region, with vertigo; pain also in the left, [23].

On getting up has the same dull, "thick" headache at the posterior upper and inner part of head (fourth morning), [16b].

A little headache in the afternoon (fourth day), [21].

### **Forehead.**

Pain in forehead, with nausea, at 11 A.M. (second day), [13].

Dull pain in forehead during the afternoon (fifth day), [13].

Dull, heavy pain in the forehead (three hours and a half after third dose, first day), [17].

Dull, uncomfortable pain in the forehead, with heat, fulness, and pulsations (third day), [7].

Dull headache in forehead in morning (seventh day), [13].

(40) Headache, dull, in the right frontal region (first day), [5].

A dull headache in the front of the head, with occasionally a shooting pain from the right temple into the head, in the afternoon (second day), [21].

Frontal headache, dull, lasting from 12 M. to 10 P.M. (second day); headache as bad as yesterday; at 12 M. some pain, and still lasting (third day), [10].

Considerably more pain in the forehead, also more pricking, with slight itching (third day), [17].

Sensation like a bubble bursting in the forehead, running around the left side of the head, at noon (first day), [12].

### **Temples.**

Lancinating pain in the right temporal region (from within out), [16b].

### **Vertex.**

Headache on the top of the head and forehead, particularly through the temples (first day), [18].

Surging in upper part of the brain, momentary, and followed by slight dimness of vision, at 10 P.M. (second day), [4].

Headache after dinner on the felt side, same as first day (third day), [12].

Drawing headache in left side, after 12 o'clock, relieved after supper (fifth and sixth days), [11].

(50) Tearing pain in occiput at 10 P.M. (third day), [4].

### **External Head.**

The hair on his head ceases falling out when combing (third and fourth days), [16b].

Before a snowstorm, pain in the aponeurosis, and muscles of the head, neck, shoulders, and back, [16b].

Heat in the scalp (feverish), [16b].

### **EYE.**

Pain in the eyes mornings when awaking, which become better by washing, [19].

A cool burning in the eyes, as though snowflakes were falling on the conjunctiva and cornea, [14].

Feeling of fulness in eyes and ears, with fine stinging in ears (second day), [6].

Irritation in the eyes, as from sand, [23].

### **Brow and Orbit.**

Inclination to pain about one inch above the left eye, alternating with pain in the left parotid region, accompanied with pain in the whole temporal region, when touching it with the hand (second day), [7].

Pain over both eyes, every day from 12, aching; earlier every day; the same also in the morning, [10].

(60) Slight pressure over left eye for a few minutes (after fifteen minutes), [10].

A violent stitchlike tightening over the left eye, posteriorly and inwardly, as if a stick were pressing around something (after a few seconds); this is repeated for several minutes with greater violence, with a burning sensation; it is followed by a painful dulness of the head, except the upper back part, [16].

Pain in the left supraorbital region, with giddiness, when going to bed at 11 P.M. (second day), [7].

Pain (boring) in the right orbit, followed by pain in the left ear, [16b].

Dull, pressing pain deep in the orbits, [23].

### **Lids.**

Spasmodic twitching of upper lid of right eye, lasting an hour (third day), [8].

Itching and soreness in the outer canthus of the right eye, with dimness of sight; sensation as of sand in the eyes, with much lachrymation and soreness of the lids, [16b].

**Conjunctiva.**

An intolerable itching in the conjunctiva in the morning, which burns when rubbed (first day), [5].

**Ball.**

Shooting pain in left eyeball (second night), [4].

**Vision.**

Appearance when looking at objects as if seen through a mist (second day), [3].

**EAR.**

(70) All the parts around the ear swollen and uncomfortable, [22].

Pain in left ear (part of S. 63), [16b].

Pain in the left ear (after one hour); subsequently also in the right, but not so severe, [14].

Slight pain in left ear (third day), [8].

Slight pain in the deaf ear, extending up into the temple, with external sensitiveness, [22].

Slight earache for a few hours, almost immediately (after fourth powder), [22].

Pressive pain in both ears (with heat), [16b].

Stitches in left ear, in afternoon (eleventh day), [13].

Slight stitches in left ear (nineteenth day), [13].

Long, deep stitches in *left* ear, lasting two hours, afternoon (second, fifth, and thirteenth days), [13].

(80) Shooting pain in left ear, at 10 P.M. (third day), [4].

A sharp shooting pain in the left ear, [23].

Ten or twelve sharp twinges of pain in the right ear (perhaps attributable to a thin muslin nightcap), in the morning before rising (fourth day), [21].

Deep-seated itching in left ear, at times amounting almost to pain (fifth and sixth days), [11].

**NOSE.****Objective.**

Sneezing and fluent coryza, followed by a severe pain in the vertex, like a stitch from a dull instrument, a little to the left of the middle, near 9 P.M.; the coryza lasted but fifteen minutes, the pain longer, [14].

A cold in the head coming on (sixth day), [21].

She was suddenly attacked with a cold in the head, without any other symptom of having previously taken cold; this passed away in about half an hour, in the evening (after fourth powder), [22].

Several days after ceasing to take the remedy she got a catarrh (cold in her head), very common to her, only on the right side of the nose, and affecting the right eye; it lasted two days, then suddenly disappeared without going to the left side, which had always been the case in former attacks, [20].

Coryza fluent, thin, acrid, causing a burning in the nose, [23].

**Subjective.**

Nose sore to the touch, feels as if stopped up, [23].

**Smell.**

(90) Smelling Irish whisky, which contains a little creosote, he gets a decided aversion to it, [16].

**FACE.**

The entire left side of the face and cheek feels as if paralyzed, as if everything were loosely

hanging down, [16].

Very red cheeks, in the evening, which burn so much as to feel uncomfortable (first day), [5].

Lower lip dry and cracked (fourth day), [3].

Soreness at corners of the mouth (sixth day), [3].

Great stiffness of the articulation of the jaws, cannot open her mouth (tenth day), [13].

## **MOUTH.**

### **Teeth.**

Dull pain in a carious tooth, with inflammation of the gums and swelled cheek (pain being of a dull, pressive character), [23].

Tearing, drawing, grumbling in the two incisor teeth, superior maxillary bone on right side; this pain was accompanied by much soreness; teeth felt elongated; about 5 P.M. (third day); recurrence of this pain at regular periods of the day for about five days, when it gradually disappeared, [2].

### **Tongue.**

Root of the tongue sore, [2].

### **General Mouth.**

Sensation of stinging in palate, worse from eating, smoking or contact, at 12 M. (second day); this stinging continued for two days, and then extended to the tip of the tongue, [4].

### **Taste.**

(100) Watery, to him very offensive, taste in mouth, [19].

After using with his meal some fresh and sweet fat he has a long after-taste, which finally turns into a decided rancid taste (sixth day), [16b].

## **THROAT.**

Dry huskiness and sore feeling in the throat, [23].

Very sore throat and earache in both ears, on getting up in the morning, several times, [22].

### **Fauces and Pharynx.**

A cold feeling in the fauces and throat, as from mint-drops (after thirty minutes), [14].

Slight pain in right side of pharynx in empty deglutition, at noon (fourth day), [3].

### **Oesophagus.**

Sensation of contraction in oesophagus, at 12 M. (third day), [4].

### **Swallowing.**

Difficult deglutition, at 12 M. (third day), [4].

Food passes with difficulty and causes pain, this sensation continued for about twelve hours (third day), [4].

## **STOMACH.**

### **Appetite.**

After 9 o'clock hunger (something quite unusual at this time), then pain below the knees and in the shins (twenty minutes after 9), [14].

### **Thirst.**

(110) Violent thirst, [26].

## **Eructation.**

Acid eructations, rising of fluid from the stomach, which taste like sour food, causing the mouth and throat to smart (second day), [17].

Belching of wind tasting sour, [23].

## **Nausea and Vomiting.**

Nausea (part of S. 26), [16b].

Nausea, in morning, followed by stitches in the left ear, lasting all day (eighth day), [13].

Nausea, and vomiting of yellowish, bitter mucus (sixth and tenth days), [13].

Nausea and vomiting, with oppression (after the sweat), [26].

Slight nausea, each time after taking the fluid, [21].

Vomiting of green, bitter mucus, with headache, at 9 A.M. (sixteenth day), [13].

Pain in epigastric region, extending from left to right, then shifting to top of head, and followed by creeping down the back, at 10 P.M. (third day), [4].

(120) Severe pain in the stomach, in the evening, cramplike, with passage of flatus from the bowels, which gave relief, [23].

Sensation of heat in the epigastrium, extending over a large space, [23].

Burning pain in stomach, with oppression and weight (first day), [18].

A constant pressure at the cardiac end of the stomach, as if something had lodged there, at 6 P.M., four hours after dinner (first day), [16b].

## **ABDOMEN.**

### **Hypochondria.**

Stitching pain in the right hypochondriac region, [23].

Pain beneath the short ribs when taking a deep inspiration, [23].

Dull pain beneath the short ribs, [23].

Stitching pain in the region of the liver, [23].

Dull pain in the region of the spleen, [16b], [23].

### **Umbilical.**

Pain as if bruised in the umbilical region, extending across the abdomen, after taking a drink of cold water, [23].

### **General Abdomen.**

(130) Rumbling in the bowels, with a nervous feeling as from strong coffee, at 4 A.M.; compelled to get up; a loose diarrhœic stool followed, which left a desire for another stool, with an uncomfortable feeling in the anus, as if the passage were not all through and more must pass (third day), [7].

Small, very fetid flatus, almost putrid (had eaten for dinner only barley soup and beef), [14].

Difficult passage of small quantities of flatus, during the morning hours, afterwards diarrhœalike urging in rectum, [14].

Wind passes from the anus with more force than usual (third and fourth days), [16b].

Sensation, with much yawning, as if diarrhœa would set in, followed by a regular stool, the last part of which was thinner, having a very peculiar smell, known to the prover, but he could not define it, [15].

Dysenteric feeling (third day), [7].

On waking felt much pain in transverse and descending colon from incarcerated flatulence; was obliged to rise; stool papescent, followed by constriction of the anus; another stool at 9 A.M., with violent tenesmus, and constriction of the anus after the stool (fourth day), [3].

### **Hypogastrium.**

Pain through the pelvis, as if from one acetabulum to the other (sixth day), [11].

Colicky pain in the lower part of the abdomen, with passage of flatus, which relieved but momentarily; subsequent passage of soft stool, with heat and burning irritation of the anus, accompanied by a sensation of great weakness in the bowels, [23].

### **RECTUM AND ANUS.**

On the third day she had for the first time in her life protruding painful piles; they appeared without constipation, lasted a week and then disappeared, [20].

Pressure in the rectum (second, third, and fourth days), [9].

(140) Pressure in the rectum, worse in the evening and in bed, [9].

All the evening a sensation as though diarrhœa would set in; this sensation is, however, only in the anus, [14].

Sensation of constriction in the anus (second, third, and fourth days), [9].

Itching in anus, relieved by scratching, at 10 P.M. (second day), [4].

Intolerable itching about the anus, relieved by scratching, in the afternoon (third day), [3].

Painful desire in the anus and rectum for stool, which, however, will not pass (third day), [7].

### **STOOL.**

#### **Diarrhœa.**

Diarrhœa early in the morning, as soon as awake; compelled to go to stool at once, with rumbling in the bowels; the stool is soft and painless; another stool immediately after breakfast, with urging (fourth day), [1].

Diarrhœa, with some tenesmus; pain in lower umbilical and upper hypogastric regions before moving the bowels; relieved after stool (second day), [11].

Before taking the medicine was troubled with constipation, with sensation of constriction of sphincter ani; relieved of these symptoms entirely, afterwards the diarrhœa set in, [11].

Slight diarrhœa, two passages, small, and without pain, in the morning (fourth day), [4].

(150) Two stools every day from the second to sixth days (one stool is the rule), [9].

Loose stool at 8 A.M. (second day), [6].

Soft pappy discharge from the bowels in the morning (second day), [7].

Soft pappy stool in the morning, with some inclination to sit at stool (forty-sixth day); the same kind of stool every morning, for four succeeding days, when it was natural; the passage was accompanied by a feeling as though the mucous membrane was thickened and stiff, [1].

#### **Constipation.**

Stool constipated; passed but two small balls after much straining, at 11 A.M. (second day), [3].

Evacuation of bowels with difficulty, ending in thin fœces, painless (second day), [8].

She had been very costive all her life; on the sixth day her bowels began to move regularly; have been getting a little worse since, but not so bad as before, [11b].

### **URINARY ORGANS.**

Sensation of pain in the forepart of the urethra (third day), [8].

Double the quantity of urine, even at night (third day); increased for two or three days, [6].

Urine like saffron; bright yellow; no sediment; passes urine often (fourth day); frequent urination, urine darker (fifth and sixth days), [12].

### **SEXUAL ORGANS.**

#### **Male.**

(160) In the forenoon erections while riding in his carriage (fifth day), [16b].

In the morning after getting up to urinate, he lies down again, and has long-lasting erections

(fourth morning), [16b].

In the morning strong erections, with increased sexual desire (sixth day), [16b].

During coition, insufficient erection, [16b].

Hot red swelling of the prepuce (fifth and sixth days), [12].

Secretion under the prepuce, much increased (fifth and sixth day); continuing for one week, [12].

On ascending the staircase leading to his chamber, he feels that the sexual parts have gone to sleep, [14].

A kind of nervous fluctuating (schuebend) and jerking pain in the left half of the penis, in the region of the prostate, very often repeated (fifth and sixth days), [16b].

### **Female.**

Menses appeared eight days too soon, rather scanty and pale, with bearing-down pain in the back (third day); same, discharge darker (fourth day); the menses continue, with a crampy pain through the hip-joint and pelvis (fifth day); the discharge becomes scanty and pale again; the pain in the back is diminishing (sixth day); all the symptoms have ceased (eighth day), [11b]. [She had always been regular before.]

Great sexual excitability (fifth day), [11].

### **RESPIRATORY ORGANS.**

(170) Hysterical attack of coughing, followed by shedding of tears, in the night (tenth day), [13].

Cough from irritation in the larynx, with loose expectoration during the day, [23].

### **CHEST.**

Pain in the chest when taking a full inspiration, [16b].

Sudden pain in the left lung, followed by a sensation as if I were falling (first day), [5].

Pain in right side of chest, could not breathe for a moment; stitching pain, at 4.30 P.M. (third day), [10].

Pain in left side of chest, in the afternoon, continuing one hour and a quarter; better when walking; worse when sitting and taking a deep breath, which causes stitches and the sensation of an adhesion (twelfth day), [13].

Pain in the lower part of left breast, followed in two minutes by the same sensation in right breast, accompanied by continued chilliness down the back, and extending down the inferior extremities, at 8 P.M. (third day), [4].

### **HEART AND PULSE.**

Uneasy pain in the region of the heart, lasting an hour or more (after two hours and a half), [8].

Slight palpitation of the heart, which lasted about five minutes, in the afternoon (first day); perhaps a slightly increased action of the heart (second day), [21].

Pulse 92, irregular (first day), [5].

### **NECK AND BACK.**

#### **Neck.**

(180) Sensation of stiffness in the neck (part of S. 19), [23].

Pain in the neck, more on the left side when riding in the carriage, as if it would break in two, [16].

Pains in the neck in the evening, which become insupportable in looking upwards, [15b].

Pressing pains in the left side of the neck, sometimes a kind of itching or burning there, soon, [14].

**Back.**

The pains in the back and hips have increased, they are of a sharp shooting character, shooting down the thighs; also shooting pains in shoulders and down the arms to the hands and fingers, a sensation of pricking over the skin in the region of the pain; the pain is more on the left than right side (one hour after fourth dose, first day), [17].

Small jerks along the left side of the spine, in the region of the ninth rib, due to spasm of a small portion of muscles, [23].

**Dorsal.**

Acute pain in the inferior part of the scapula, at 12 M. (seventh day), [17].

Shooting pain in region of left scapula, from 11.30 to 12 P.M. (second day), [4].

**Lumbar.**

Stitches in left lumbar region, lasting only a few seconds (after fifty minutes), [10].

**Sacral.**

Severe pains in the crest and dorsum of the ilium, extending across the sacrum with a sensation as though there was powerful traction at the attachment of the muscles, at 12 M. (seventh day), [17].

(190) At 5 P.M. very severe attack of pain across the sacrum and dorsum of each ilium; every movement caused very severe pain; could only rise with great difficulty from the chair, or walk, or move my body in any way; the sensation was as if the muscles were strained, and on the point of being torn from their attachment; much pain for awhile after going to bed (twelfth day), [17].

**EXTREMITIES IN GENERAL.**

Pain in arm and leg of right side; pains mostly in the joints; deepseated pains as though they were in the bones; the pains shifted about and did not remain long in one spot (third day), [18].

Aching of the bones, with a feverish state of the system, with fulness and dulness of the head, [23].

Tearing and drawing in left arm and leg from above downwards, at 10 P.M. (third day), [4].

**SUPERIOR EXTREMITIES.**

When riding in his carriage a sensation in both arms and hands, as if they had gone to sleep, more in the hands, [14].

On awaking his left hand and arm have gone to sleep (fourth morning), [16b].

Darting, sticking pains in the arm, neck, and chest of right side (second day), [18].

Shooting pains in the arms, extending to the elbows, at 12 M. (seventh day), [17].

**Shoulder.**

Continued soreness, very painful in the anterior part of the left armpit (third day), [16b].

**Arm.**

Twitching in triceps muscles of left arm, at 9 P.M. (fourth day), [3].

(200) Severe pain in the middle of the left upper arm, like a pinching with dull wooden pincers, coming at intervals and lasting half an hour; subsequently very similar pains on various parts of the body lower down, [14].

Long, deep stitches in left upper arm; afternoon (second, fifth, and twelfth days), [13].

**Elbow.**

Pain in elbow and wrist of right side (second day), [18].

Severe pain above the right elbow, inwardly on the inner side, increasing in intensity in the

direction of the upper arm, [14].  
Rheumatic pain in the right elbow-joint, [16b].

### **Forearm.**

Rheumatic pain in right forearm and wrist, [23].  
Stitching pain in the course of the ulnar nerve down to the left little finger, [23].  
Shooting pains in the forearms and hands, at 1 P.M. (seventh day), [17].  
Biting pain in left forearm, lasting a short time (third day), [8].

### **Wrist.**

Several slight indefinable sensations in and around the left wrist, followed in ten or fifteen minutes by a pain in the right tendo Achillis; at its height after one hour, and most in the right upper posterior part of the head, [16].  
(210) Rheumatic pain in the right wrist-joint and in the course of the ulna, [16b].

### **Hand.**

Great inflammation, redness, and swelling of the back of the hands; soon after, suppuration under the finger-nails, followed by loosening and falling off of the nails, [25].  
Burning pain in left carpal bones, at 11 P.M. (fourth day), [3].  
Shooting pain in carpal bones, while writing, extending down third and fourth fingers, at 9 P.M. (second day), [4].  
The palms of the hands burn (first day), [5].

### **Fingers.**

For several days in succession burning stitches in the finger-ends, first in the left hand, and worse in the evening, then on the right hand, and worse in the morning, the middle finger most affected, [14].  
Tearing pain in middle finger of left hand, at 11.50 A.M. (second day), [10].

## **INFERIOR EXTREMITIES.**

Bruised sensation in the lower limbs (sixth day), [11].

### **Hip.**

An uneasy painful sensation in the hips and thighs, with a desire to change often their position whilst sitting (seventh day), [17].  
Pain in the hips (bruised) at night in bed, causing him to change from side to side, [16b].  
(220) Slight pain in the hips and small of the back and sacrum (three hours and a half after third dose, first day), [17].  
Rheumatic pains in both hips from left to right, [23].  
Slight shooting pains in the hips, shooting down the thighs at 7 P.M.; pains have increased and are more acute and sharp at 10 P.M. (sixth day), [17].  
A severe bruised pain in the left hip-joint, so as to interfere with walking, [23].

### **Thigh.**

Shooting pain in thighs down to the knees, at 12 M. (seventh day), [17].

### **Knee.**

In the evening, when walking, the right knee gave way under him on account of a severe pain below the knee; the following day the same, and a hinderance in walking, from a similar severe pain in the middle toe of the left foot, [15b].  
Pain in the knee-joints (rheumatic), most in the right, increased by walking, [16b].

Rheumatic pain in the left knee, [23].

Lancinating pain in the left knee-joint, waking him from sleep, [16b].

### **Ankle.**

Sharp rheumatic pain in both ankles, much increased by walking, [23].

### **Foot.**

(230) He is troubled in the night with cramp in both feet, especially in the soles under the toes, and always in a very small spot (after two or three weeks), [16b].

He is woke up at 3 A.M. by a cramp in the soles of the feet, particularly in the forepart and under the toes; more in the right foot; he had the same when lying on the lounge in a warm room (fourth night), [16b].

### **Toes.**

Sharp intermitting pain in fourth toe of left foot; soon after, a burning pain just behind the ball of the first toe of the same foot; soon after, slight pain in the lower part of the tibia of the left leg (fifth day), [3].

Stinging and burning in left great toe (second night), [4].

## **GENERALITIES.**

### **Objective.**

In four hours, pink, flat, spreading swelling of bitten part, with itching; the swelling increased, so that it felt tender on bending the wrist; then the swelling went up arm, bright red, like erysipelas, with itching; the swelling pitted on pressure, leaving a white indentation, with crimson areola; itching in wrist at this time; the swelling was relieved by warm bathing, and the itching by Arnica, [24].

More than usual agility (second day), [6].

Great agility of mind and body (third day), [6].

Indisposition to exercise the muscles; they feel painful when exercised, especially the extensors of the legs, [16b].

General weakness of the whole muscular system; the muscles feel as if paralyzed, [16b].

Very weak in the morning (eleventh day), [13].

(240) Attacks of faintness, lasting some minutes, at 8 P.M.; everything is black before the eyes; is compelled to sit down (fifth day), [13].

### **Subjective.**

Very susceptible to cold, [23].

He could not bear as well as usual the cold weather (first and second day), [16b].

He is more affected by the cold than usual, especially when walking against the wind, in the evening (fourth week), [16b].

Great liability to take cold, and bad effects from it, [23].

General exaltation; wants to run, but soon becomes tired, in the evening especially (first day), [12].

General lightness (second day), [12].

Indisposed, forgetful, very sleepy and tired in the evening; unusually affected on hearing bad news of some threatening evil, [15].

Had a feeling of discomfort, immediately, and felt badly all day, [15].

He is dull, feels heavy and bruised, in the morning (second day), [14].

(250) A wretched feeling of the whole system, causing one to gape and stretch, [23].

Languid feeling of the whole system, with pain in all the limbs, accompanied by chills and horripilations along the spine, [23].

A kind of sharp corroding, sore feeling or painfulness, here and there, more or less during the

whole day, [15b].

All the symptoms, including the cold, have been on the right side (which is the deaf ear), the others occasionally sympathizing, [22].

The powders taken at night seem to have had the most effect, [22].

Pains increase whilst sitting up after a walk, at 10 A.M. (seventh day), [17].

Recurrence of the pains several days after, upon taking a slight cold, [18].

*Merc. corr.* stopped all the symptoms, [12].

## **SKIN.**

Violent itching on the inside of left arm and hand, followed by a rash, appearing in streaks on left arm and hand, as from the seams of a glove; in the afternoon (seventh day), [13].

After taking the first powder, the blister on the face for which the medicine was given seemed rather smaller and harder; after the second it was softer and felt sore; a small pimple appeared on the face; the morning after the third the surface of the blister was irregular, [22].

(260) Here and there on the skin a pressing-burning sensation on small but not sharply defined places, [14].

Small but violent prickling-pressing stitches, particularly in the region of the right nipple, as from nettles, but without the long-continued sensation of an after-burning; after awhile the same on the left side of the back, and much more violent; still later the same sensation on other parts of the body, [14].

Tingling in the left fingers, [23].

Itching on the scrotum, [16b].

Itching in the left armpit, followed by a soreness; besides this, also a sore place inwardly (first day); the itching still continues, and the feeling of soreness is increased by scratching (second day), [16b].

Itching of the scalp, arms, abdomen, and the whole trunk and head; (this symptom was well marked), (first day), [5].

Several mornings in succession, instead of the itching in the inner and anterior part of the left armpit, he now has the same in the right armpit more outwardly (fifth day), [16b].

In the evening, night, and the following day, a violent itching on the left shoulder-blade and on the left thigh near the inguinal region; it comes again and again, and is each time relieved by scratching (sixth evening and seventh day), [16b].

A very violent itching in the palm of the left hand, for several days), [16b].

Burning itching in the bend of the left knee, which increased to an extraordinary degree, at half past nine; the same sensation, which is neither an itching, nor a burning, nor a pressure, but a union of the three, on many different parts of the body, now here, now there, [14].

(270) Very violent penetrating itching at the right nipple, immediately, [14].

## **SLEEP AND DREAMS.**

### **Sleepiness.**

Very frequent yawning at 1 P.M.; has to stretch out his limbs, [16].

Sleepy in afternoon (ninth, twelfth, and fourteenth days), [13].

Sleepiness in afternoon, then stitches in left ankle (fourth day), [13].

Great sleepiness for half an hour, in afternoon (third day), [13].

Great sleepiness in the evening, while reading, removed (second day), [8].

After eating some water soup, made from scalded rye-bread with cream, he all at once becomes very sleepy, and falls asleep in his chair; on awaking, does not as usual feel refreshed, but goes immediately to bed, and falls asleep at once, [14].

Dull sleepy feeling, with heaviness of the eyelids, and inability to study (first day), [18].

Sleeping easily in the evening (third day), [12].

He is disturbed several times during the night by the restlessness of the children, but each time

he falls easily asleep again, which is very unusual, [14].

(280) He does not feel like getting up; he has scarcely roused himself when he drops off to sleep again (second morning); this happened every morning for more than a week, [15].

### **Sleeplessness.**

Sleeplessness the first twenty-four hours, with sleeping and waking alternately afterwards, [6].

Restless sleep at night (fifth, sixth, and tenth days), [13].

Restless night; sleep much disturbed (second day), [13].

Very wakeful after going to bed (first night), [8].

It is again a habitual thing with him to wake up and feel that he has had sufficient sleep (fifth day), [16b].

For several evenings, he drank beer and afterwards wine, and although he went to bed at 1 o'clock he woke at 3, and felt as if he had had enough sleep, [16].

When he is aroused by a patient he feels as though he had slept enough, and can do with less sleep (third night), [16b].

Very little sleep during the night, with much nausea (third day), [13].

Wakefulness all night, with very little sleep (first night); sleep well (second night); sleeplessness (third night), [1].

(290) The alternation of wakefulness and sleep has continued at night with great regularity; from the eighth day to the fifteenth there has been regular alternations of sleepless nights and profound sleep; one night getting to sleep with great difficulty, and waking often during the night; the next night the sleep would be quiet and profound, [1].

Wakens feeling very weak (seventeenth day), [13].

### **Dreams.**

Dreams the first three nights not unpleasant, [9].

Lewd dreams at night (third day), [3].

Lewd dreams often at night (first, second, third, and fourth nights); with erections (first and third nights), [12].

At night, vivid lewd dreams, erections of penis, and seminal emissions (first, second, and third nights), [5].

A Brunswick sausage, which had become somewhat mouldy, was left in his sleeping-room, and perhaps caused the following dream; he saw a funeral procession, with a large coffin and many smaller ones; the persons had died from scarlet fever; the procession almost came up with him, and stopped at the street corner; as he attempted to get out of the way of the wind, which blew towards him from the procession, he woke up (fourth night), [16b].

### **FEVER.**

#### **Chilliness.**

Chills (part of S. 251), [23].

Continued chilly sensations during the night (second night), [4].

Continued creeping down the back (third day), [4].

(300) Cold feet continually, [23].

#### **Heat.**

Feverish heat all over the body, most in the scalp, [16b].

Feverish state of the system), [23].

Some fever (first day), [5].

Hand and face very hot (first day), [5].

A feeling of warmth in the lower part of chest and abdomen, [23].

**Sweat.**

A copious sweat broke out (after drinking whisky), [26].

Disagreeable sweat during the night, [19].

Woke up with clammy skin (had the same symptom years ago, but no since), [19].

**CONDITIONS.****Aggravation.**

(*Morning*), When writing, dizziness; at 4 o'clock, while attempting to rise, giddy; when waking, headache, etc.; when waking, pain in eyes; on getting up, sore throat, etc.; diarrhœa; stitches in right finger-ends; weakness; itching in armpit.

(*Afternoon*), From 12 to 10 o'clock, worse when stooping, headache; from 12 to 5 o'clock, pain in incisors.

(*Evening*), In bed, pressure in rectum; stitches in left finger-ends; general exaltation.

(*Night*), In bed, pain in hips; sweat.

(*Open air*), All symptoms.

(*Coffee*), Headache.

(*After drinking cold water*), Pain in umbilical region.

(*Washing in cold water*), Headache.

(*Contact*), Stinging in palate.

(*Eating*), Inclined to be giddy; stinging in palate.

(*Deep inspiration*), Pain in left chest.

(*Looking up*), Pain in neck.

(*Sitting*), Pain in left chest.

(*Sitting up after a walk*), The pains.

(*Sitting quietly*), The pains.

(*Smoking*), Stinging in palate.

(*Study*), The pains.

(*Walking*), Pain in knee-joint; pain in ankles.

(*Warm bathing*), Swelling of bitten parts.

**Amelioration.**

(*Combing hair*), Headache.

(*Walking*), Pain in left chest.

(*Washing*), Pain in eyes.

(Timothy F. Allen, The Encyclopedia of Pure Materia Medica, Boericke & Tafel, New York and Philadelphia, vol. 4 (1877), Formica, p. 355-364)

## Heilungen / Cures



# Heilungen / Cures

## Übersicht / Overview

1896 - Steady pain behind the right ear - J. W. Thomson

1903 - Enlargement of the liver and ascites in a man aged forty-seven - Cyrus M. Boger

### **1896 - Steady pain behind the right ear - J. W. Thomson**

"A gentleman, born in 1810, whom I have treated off and on for the past thirteen years, and whom I saw through an attack of dysentery about ten years ago, had severe neuralgic pains between posterior of right ear and centre of occiput about two years ago. From this he apparently recovered, and I lost sight of him for over a year. Some six months ago he returned to me with a steady sore and burning pain in same region; swollen and tender around, but especially behind, right ear. He can only sleep in just such a comfortable position, which he cannot describe, but only knows when he gets there; and must have it covered up warmly behind right ear and between there and occiput and neck - all right side.

It is always grateful for him to take right hand and rub gently behind right ear, which he often does.

Sweat, while not ungrateful, never affords any relief. Says it neither makes him better nor worse. His whole head seems to sympathize with the distress. The head and front of offending is, however, in the parts described.

He has dribbling of urine, which is a trouble and source of great annoyance.

I gave Formica-rufa, six doses, three per diem (i. e., one before each meal).

On the second day, toward evening, he felt worse, and on the third day there were twinges and spasms of severe pain in lieu of the soreness only he had before experienced, which gradually got better, and on the fourth day even the soreness was much better. The main thing, however, was that he felt mentally better; said his mind and head felt stronger, and from feeling depressed he had become cheerful, and life did not seem the burden it had for some time past. Thus, the God-given law - Homoeopathy, and Homoeopathy alone, in diseased states - answers affirmatively the question asked by Shakespeare, "Cans't thou minister to a mind diseased?"

(J. W. Thomson, M. D., New York, Formica Rufa, The Homoeopathic Physician vol. 16 (1896), p. 32-33)

### **1903 - Enlargement of the liver and ascites in a man aged forty-seven - Cyrus M. Boger**

"After having been advised by his two allopathic physicians to send for any friends he might wish to see before death, Mr. Jacob Nist, aet. forty-seven, of Filmore, Ohio, consulted me July 14, 1903, for the following symptoms:

1. Liver enlarged, extending one-third of the distance towards the navel, with soreness at the edge of the ribs and a severe pain at every jar as if it would break in two.
2. Ascites; feet also are oedematous.
3. Face dark, brownish and cadaveric.
4. Stools frequent, of light colored foam.
5. Feet and hands feel as if asleep.
6. Sharp, shooting pains in the head, better rubbing.
7. Had malaria four years ago and again for the past seven weeks, for which he took much quinine on both occasions.
8. Easily chilled.

9. Much drowsiness, particularly before storms, but before snow storms he becomes chilly.
10. Much gas in bowels.
11. Great weakness, with pronounced dyspnoea on exertion.

This case contains the grand characteristics of Formica, as emphasized by the italics of the text; he therefore received one dose of the c. m. potency dry on the tongue; on the 25th inst. he reported improvement, his stools having become brown. He continued to grow better until the 1st of August, when an aggravation occurred, for which he received another dose. From this time on a steady improvement set in, and at the end of six weeks he was working in the field. At this date, December 26, he remains in good health.

(C. M. Boger, M. D., Parkersburg, W. Va., The characteristics of Formica, Proceedings of the International Hahnemannian Association 1903, p. 163)

## Klinische Hinweise / Clinical Hints



## Klinische Hinweise / Clinical Hints

### Übersicht / Overview

1903 - Pruritus senilis - Cyrus M. Boger

1903 - Intense headache in a woman aged 49 - Cyrus M. Boger

1990 - Pain in the joints - Elizabeth Wright-Hubbard

### 1903 - Pruritus senilis - Cyrus M. Boger

"Mrs. N., aet eighty.

Itching and burning of skin, worse before a snowstorm, in the evening and from alcoholic stimulants; not affected by rainstorms; better from warm baths; patient has few articular distortions of fingers.

Formica cm., one dose, gave great relief; a repetition in two months was necessary; an absolute cure at this age is hardly to be expected."

(C. M. Boger, M. D., Parkersburg, W. Va., The characteristics of Formica, Proceedings of the International Hahnemannian Association 1903, p. 159-163)

### 1903 - Intense headache in a woman aged 49 - Cyrus M. Boger

"Miss B., aet forty-nine.

Intense headache appearing in either temple, then going to the other; generally begins at night or in the morning, slowly increasing to a certain height, then declines.

The attacks move in periods of 24 to 36 hours, are preceded by listlessness and heavy eyelids, accompanied by yawning, profound sleep, itching of scalp, burning in eyes, chapping of lips and a cold spot on vertex; the feet feel as if in ice water.

Worse from drafts or cold.

Better in summer, from coffee, wrapping up head and rubbing or *combing hair*.

Sensation of a vapor going through head on swallowing.

Retraction of gums.

Had chills, followed by urticaria twenty years ago.

Flea or mosquito bites cause great oedema.

Naturally chilly, back of neck sensitive to drafts, easily takes cold.

Over-sensitive to pain.

Prescriptions at various times for over three years yielded no result until the modality, "better from combing the hair," appeared.

She now received Formica cm., one dose after each attack.

In two months they disappeared; then followed an attack of basilar congestion, with much vertigo on rising.

Several doses of Bryonia helped, but left her with an ataxic gait, from which she very slowly recovered; since which she has had one mild headache; this patient is evidently gouty."

(C. M. Boger, M. D., Parkersburg, W. Va., The Characteristics of Formica, Proceedings of the International Hahnemannian Association 1903, p. 159-163)

### 1990 - Pain in the joints - Elizabeth Wright-Hubbard

"Formica Rufa has pain in the joints accompanied with sweat (like Oxalic Acid), and with it pain in small spots with numbness, worse thinking of it, should be considered often than it is."

(Elizabeth Wright-Hubbard, M.D., Homoeopathy as Art and Science, Selected Writings, Edited by Maesimund B. Panos and Della DesRosiers, 1990, Remedies for the Relief of Pain and Muscle Spasm, p. 147)

## Hering's Guiding Symptoms



Constantin Hering (1800-1880)

# Hering's Guiding Symptoms

## Formica Rufa

*The Ant.*

*Hymenoptera.*

"The name Formica was used by Linnaeus as a generic name for a large number of species, all of which appear to common people to be ants. Later entomologists had to separate the species and arrange them under different names, as different genera. The genus to which the old name, Formica, was left by Latrielle, is the one from which we have reports of cures, and from which we made our provings. Ants belonging to the genus Formica, as Latrielle has it, when attacked defend themselves by biting with their mandibulae, or jaws, and bending at the same time their abdomen downward and forward, they eject from the anus a sharp, sour fluid towards the place which they tried to wound with their pincers. The fluid reddens litmus paper, and contains Formyl acid (Formica or Formic acid)  $\text{CH}_2\text{O}_2$ .

For historical data see N. Amer. J. of H., Aug., 1870, article by C. Hering.

The tincture is prepared from crushed live ants.

The provings were principally made and conducted by Lippe and Hering. See Hering's Monograph, and Allen's Encyclopedia, vol. 4, p.355. The preparations used were the formic ether, formyl acid, spiritus formicarum, formica rufa and subsericea.

**Clinical Authorities.** - See Hering's Monograph. <sup>[1]</sup>

### Mind

I Want of memory; forgetful in evening.

ii Indisposed, forgetful, morose, fearful and apprehensive.

Exhilarated condition after pain in vertex had abated.

### Sensorium

I Vertigo; all things seem to move to and fro, and reeling of body.

Inclined to be dizzy while eating; giddiness after dressing in morning or on attempting to rise; pain in left supra-orbital region when going to bed, with dizziness; blackness before eyes, amel by sitting down.

Giddy on attempting to rise.

Fulness in head; stupid feeling in head, with sensation of stiffness of neck.

Heaviness of head; sensation as if brain was too heavy and large; congestion to head; pulsations in head.

Dull, sleepy feeling, with heaviness of eyelids, and inability to study.

Dull, uncomfortable feeling in forehead, with heat, fulness and pulsations.

ii Dulness of head; pressure on both sides between temples and ears.

I In all kinds of apoplectic diseases.

I Strengthens the brain.

### Inner Head

Forepart of head aches, with the cough.

Sensation like a bubble bursting in forehead, running around left side of head.

Dull frontal headache, with occasional shooting pains from r. temple into head, in afternoon.

I Headache in left forepart of head and temple back to occiput, beginning earlier every day, with a sore pain over eye, increasing gradually, with cutting, extending into ear.

I Headache with cracking in left ear, followed by pain in left temple, then in vertex, with nausea, and abatement of pain in forehead.

I Sick headache, with shooting, neuralgic pains in temples.

Lancinating in right temple, from within out.  
Dull pain in whole head, with occasional boring in right temporal region.  
Severe pain in vertex, like a stitch from a dull instrument, as from a pressing nail.  
Pain on top of head shifting from epigastrium.  
Headache on top of head and forehead, particularly through temples.  
In morning headache in posterior upper and inner part of head; agg drinking coffee; each time during and after washing with cold water.  
Tearing pain in occiput.  
 $\pi$  Pain from neck up to back of head.  
 $\pi$  Sensation running up into head from body like lightning.  
When waking in morning, headache with vomiting, stitches in right side of chest.  
Headache : with nausea; agg sitting up in bed; with nausea and vomiting; in afternoon, with occasional fluttering of heart; daily from 12 M. to 10 P.M.; agg stooping; all day, amel after combing hair.  
I Nervous headache.

### **Outer Head**

I Itching of scalp and head.  
I Hair on head ceased falling out when combing.  
I Contusions of head.

### **Sight and Eyes**

Pain in left supraorbital and left temporal region, the seat of pain being tender to touch; pain and aching over left eye; objects appear as if seen through a mist; blackness before eyes, must sit down for a few moments.  
I Dimness of sight.  
 $\pi$  Although improved, she cannot see, has flickering before eyes, and eyes are very weak.  
I Nebula; leucoma; pterygium.  
I Maculae and ulcers on cornea.  
 $\pi$  Pain in eyes mornings when awaking, amel by washing.  
II Rheumatic inflammation of eyes and sequelae.  
Spasmodic twitching of upper eyelid of right eye.

### **Hearing and Ears**

I Ringing, buzzing in ears.  
I Cracking in left ear, with headache.  
I Difficult hearing; deafness.  
I Earache in both ears, morning getting up.  
Pressing pain in ears, with heat.  
Slight stitches in left ear, followed by a small abscess in external portion of meatus auditorius.  
 $\pi$  External sensitiveness of right ear and temple.  
 $\pi$  All the parts around ear feel swollen and uncomfortable; slight pain in (right) deaf ear, extending up into temple, with external sensitiveness.  
 $\pi$  Behind the ear, pain from neck.  
 $\pi$  All ear symptoms, like cold in head, have been on right side, where ear is deaf; left ear occasionally sympathizing.

### **Smell and Nose**

Sneezing and fluent coryza.  
I Catarrh.

### **Upper Face**

Entire left side of face and cheek feel as if paralyzed.

π After taking first powder, the blister on face, for which the medicine was given, seemed rather smaller and harder; after the second, it was softer and felt sore, and a small pimple appeared on face; the morning after the third, surface of blister was irregular.

### **Teeth and Gums**

l Grumbling in teeth during afternoon, from draught.

l Pain in decayed last molar, left side.

### **Taste and Tongue**

π Watery taste in mouth, very offensive to him.

π Water tastes badly, sweetish and insipid.

π Root of tongue sore; at the tip stinging.

### **Throat**

Dry throat all night, could scarcely speak; when she got into a position in which she could sleep a little, the dryness of throat awoke her.

π In morning on rising very sore throat and earache in both ears.

l Sore throat in morning with much mucus.

l Sore throat agg left side.

π Pain in neck when hawking and gargling.

### **Appetite, Thirst. Desires, Aversions**

π Much thirst all day, but water tasted badly, sweetish and insipid.

### **Eating and Drinking**

π While eating and drinking, especially when closing jaws, severe pain in neck.

π After drinking tea, copious sweat.

### **Hiccough, Belching, Nausea and Vomiting**

π Frequent belching without and relief.

l Nausea and vomiting.

ii Nausea with headache, and vomiting of yellowish, bitter mucus.

π Vomiting : with diarrhoea, in evening; with cough.

### **Scrobiculum and Stomach**

π Warmth and burning in stomach, acceleration of pulse, increased urination, increased transpiration, excitement of sexual organs, viscous, stinking urine, with gouty patients.

Burning pain in stomach, with oppression and weight.

ii Constant pressure at cardiac end of stomach, and a burning pain there.

### **Hypochondria**

Dull pain in region of spleen.

### **Abdomen**

π Severe pain in belly, and shuddering chilliness.

Sensation across abdomen as if bruised below navel, also tired feeling in back.

l Flatulency.

l Hardening of mesenteric glands.

## **Stool and Rectum**

π After having a thin evacuation with bellyache, every morning for a week, without much relief from the eruption, there appeared in the evening, at 8 or 9 o'clock, violent diarrhoea and vomiting.

l Diarrhoea after meals, or only during day, not at night, or day and night, or before midnight.

ii Diarrhoea, with tenesmus; pain in bowels before stool.

Loose diarrhoeic stool, which left a desire for another stool, with an uncomfortable feeling in anus, as if the passage was not all through, and more must pass.

Difficult passage of small quantities of flatus in morning; afterwards diarrhoea like urging in rectum.

l Diarrhoea of children.

π In the morning second stool.

l White stools.

l Constipation and sensation of constriction of sphincter ani.

Pressure in rectum, agg evening and in bed.

Painful desire in anus and rectum for stool, which, however, will not pass.

l Tapeworm.

## **Urinary Organs**

Paralysis of bladder.

## **Male Sexual Organs**

Long-lasting erections after urinating in morning.

l Seminal emissions.

l Weakness of sexual organs.

l Scanty ejaculation with incomplete erection.

A kind of nervous, floating and jerking pain in left half of penis and region of prostate, frequently repeated.

On ascending stairs feeling as if several parts had gone to sleep.

Itching on scrotum.

## **Female Sexual Organs**

l Uterine complaints.

Menses scanty and pale, with bearing down pain in back; 3d day; darker 4th day; crampy pain through hip-joint and pelvis.

Menses appear eight days too soon.

## **Pregnancy, Parturition, Lactation**

l Lack of milk with nursing women.

## **Voice and Larynx. Trachea and Bronchia**

l Hoarseness with sore throat.

l Small piece of phlegm in larynx which cannot be brought up by coughing.

## **Cough**

l Tedious and long lasting; agg at night and from motion; with an aching in forehead and a constrictive pain in chest.

l Violent attacks of cough with vomiting, day and night.

## **Inner Chest and Lungs**

l Pleuritic pains.

### **Heart, Pulse and Circulation**

Uneasy pain in region of heart.

Palpitation of heart; fluttering of heart.

### **Outer Chest**

ii Violent penetrating itching at right nipple.

ii Violent prickling, pressing stitches in region of left nipple; later on left side of back, but more violent; still later, the same sensation on other parts of body.

### **Neck and Back**

$\pi$  Soreness in neck and up into head; amel by external pressure.

$\pi$  While eating and chewing food, especially when closing her jaws, severe pain in left side of neck, which extended into back of head and particularly behind ear.

$\pi$  In morning, on gargling her throat, when hawking, suddenly a violent pain in left side of nape of neck, extending down left arm, can scarcely move it, agg above elbow; amel in evening in left arm, but it went to right, where it was agg than before; on bending head back, could scarcely bring it forward again, on account of pain; whole neck stiff, and very painful up to back of head, agg from least motion; on wishing to rise from bed, must press both hands behind ears, cries out on least motion.

$\pi$  Into the neck pain with least turn or twist.

$\pi$  After sitting up pain in neck agg again, amel by application of a hot iron.

ii Violent itching on left shoulder-blade.

I Pain in back.

Severe pain across sacrum and dorsum of each hand, agg on motion.

II Affection of spinal cord.

### **Upper Limbs**

ii Itching in armpits in morning.

$\pi$  Pain from neck down left arm; in evening to right; could scarcely move her arm.

ii Severe pain above right elbow.

$\pi$  Pain agg in upper arm, above left elbow.

Rheumatic pain : in right elbow-joint; in right forearm and wrist; along course of ulna.

Pain leaves left arm and goes to right.

### **Lower Limbs**

Severe pain through pelvis, as if from one acetabulum to the other.

Bruised pain in hips at night in bed, causing him to change from side to side.

Legs felt as if she had no power in them, sore and tired; sensation across abdomen as if bruised below navel, also tired feeling in back; felt a little giddy.

Lancinating pain in left knee-joint, waking him from sleep.

Rheumatic pains in knee-joints, agg walking.

Cramp in both feet, especially in soles near toes.

I Gout; gouty pain in limbs.

I Arthritis vaga.

I Chronic gout and stiffness of joints.

I Old atonic gout.

I Checked foot-sweat.  $\theta$  Chorea.

### **Limbs in General**

Sensation as if muscles were strained and being torn from attachment.

|| Rheumatism appearing suddenly, mostly in joints, with restlessness; patients desire motion, although it makes pain more acute; pains amel by pressure; sweat without relief; right side principally and more severely affected than left.

| Old local or general rheumatic affections; internal or external.

| Rheumatic or gouty pains.

| Stiffness and contraction of joints.

### **Rest. Position. Motion**

Sitting : upon bed, headache with nausea agg; pain in neck agg.

Stooping : headache with nausea.

Sitting down : blackness before eyes amel.

Bending head : could scarcely bring it forward again on account of pain.

Could get to sleep if she could get right position.

Pain in hip compels him to change from side to side.

Closing jaws : severe pain in neck.

Attempting to rise : giddiness; pain in neck.

Can scarcely move arm for pain.

Walking : pain in knee-joints.

Ascending stairs : feeling as if sexual parts had gone to sleep.

Motion : cough agg; pain in back of neck agg; pain across sacrum and dorsum of each hand agg; agg pain, but patient desires it.

### **Nerves**

Languid feeling of whole system, with pain in all the limbs, accompanied by chills and horripilations along spine.

Legs felt as if she had no power in them.

| Great lassitude and prostration.

General weakness of the whole muscular system.

| Faintings.

| Limbs lame; paralyzed.

| Paralysis.

| Spasms.

| A long, horribly maltreated chorea lessened as soon as the foot-sweat, which had been checked, was brought on again by putting feet in a bag with living ants and creating steam with hot stones.

| Epilepsy.

| Affections of the spinal cord.

| Strengthens the nerves.

### **Sleep**

π All night dry throat, woke her out of sleep.

π Disagreeable sweat during night, awoke with clammy skin.

π Passed a dreadful night; pains suddenly return with violence, only lessening somewhat after midnight.

π Could get to sleep if she could get the right position.

| Wakes up early and feels that she has had sufficient sleep.

| When awaking in morning : headache; vomiting, with headache; pain in eyes; stitches in ear.

### **Time**

Morning : after dressing, giddiness; headache; headache with vomiting; pain in eyes; earache; dry throat; sore throat; difficult passage of small quantities of flatus; second stool; long-lasting

erections after urinating; violent pain in left side of neck; itching in armpits; sweat.

Day : headache; diarrhoea; cough with vomiting.

Afternoon : shooting pain in right temple; headache with nausea and fluttering of heart; grumbling in teeth.

Evening : forgetful; vomiting with diarrhoea; pressure in rectum agg; pain in arm amel; pain goes from left to right arm.

Night : dry throat; diarrhoea; cough agg; cough with vomiting; bruised pain in hip.

After midnight : pains amel.

### **Temperature and Weather**

Creating steam with hot stones in a bag of live ants brought back foot-sweat.

Hot iron amel pain in neck.

Cold water : headache agg during and when washing with cold water; renews burning pains.

I Great liability to take cold.

I Consequences of cold and wet; cold bathing; damp weather.

### **Fever**

π Shuddering chilliness with pain in belly.

π Clammy skin, awaking her.

π Disagreeable sweat during night.

π Perspired for about half an hour, but without slightest amelioration of pain in arm.

π At noon, after drinking tea, copious sweat without relief.

II Sweat without relief.

### **Attacks, Periodicity**

Frequently repeated pains in left half of penis.

Attacks : of violent cough with vomiting.

Every morning : thin evacuation with bellyache; Earlier every day : headache.

Daily from 12 M. to 10 P.M. : headache with nausea.

Third day : menses pale and scanty with bearing down pain in back.

Fourth day : menses darker.

### **Locality and Direction**

Right : shooting pains in temple; lancinating in temple; boring in temple; stitches in side of chest; spasmodic twitching of upper eyelid sensitiveness of ear and temple; violent penetrating itching at right nipple; pain from neck down arm; severe pain above elbow; rheumatic pain in elbow-joint, in forearm, in wrist, along course of ulna.

Left : pain in supraorbital region; sensation of bubble bursting in side of head; headache in forepart of head and temple; cracking in ear; pain in temple; pain and aching over eye; stitches in ear; small abscess on external portion of meatus auditorius; side of face and cheek feel as if paralyzed; pain in decayed molar; side of throat sore; a kind of nervous, floating, jerking pain in half of penis; prickling stitches at nipple; on side of back; closing jaws severe pain in neck; severe pain down arm; violent itching of shoulder-blade; pain from neck down arm; pain in upper arm above elbow; lancinating pain in knee-joint.

I Pains left then right; right then left.

### **Sensations**

As if brain was too heavy and large; sensation like a bubble bursting in forehead; like a stitch from a dull instrument in vertex; as from a pressing nail in vertex; left side of face and cheek as if paralyzed; as if bruised below navel; as if male sexual organs had gone to sleep; as if muscles were strained and being torn from attachments; legs feel as if she had no power in

them.

Pain : in left supraorbital region; in forepart of head; in left temple; in forehead; in vertex; from neck up to back of head; over left eye; in both ears; in right ear extending up into temple; from neck behind ear; in decayed last molar left side; in neck; in bowels; down left arm; in back; in upper arm above left elbow; from left arm to right; in all limbs.

Severe pain : in vertex; in neck; in belly; across sacrum and dorsum of each hand; above right elbow; through pelvis as if from one acetabulum to the other.

Lancinating : in right temple; in left knee-joint.

Tearing pain : in occiput.

l Cutting pain : in head; into ear.

Shooting pains : from right temple into head.

Boring : in right temporal region.

Stitches : in right side of chest; in left ear; in region of left nipple.

Prickling stitches : in region of left nipple; in left side of back; on other parts of body.

Pleuritic pains : inner chest and lungs.

Crampy pain : through hip-joint and pelvis.

Cramp : in both feet; in soles.

Neuralgic pains : in temples.

Rheumatic pain : in right elbow-joint; in right forearm; in right wrist; along course of ulna; in knee-joints.

Gouty pain : in limbs.

Bearing down pain : in back.

Pressing pain : in ears.

Bruised pain : in hips.

Burning pain : in stomach.

Stinging : at tip of tongue.

Sore pain : over eye.

Jerking pain : in left half of penis; region of prostate.

Nervous floating pain : in left half of penis; in region of prostate.

Constrictive pain : in chest.

Dull pain : in whole head; in region of spleen.

Uneasy pains : in region of heart.

Soreness : at root of tongue; of throat; in neck up into head; of legs.

Burning : of stomach.

Grumbling : in teeth.

Constriction : of sphincter ani.

Spasmodic twitching : of upper eyelid of right eye.

Dull frontal headache.

Dull feeling : in head; in forehead.

Dulness : of head.

Fulness : in head.

Pressure : at cardiac end of stomach; in rectum.

Stupid feeling : in head.

Dryness : of throat.

Heaviness : of head; of eyelids.

Stiffness : of neck; of joints.

Fluttering : of heart.

Cracking : in left ear.

Buzzing : in ears.

ringing : in ears.

Tired feeling : in back; in legs.

Lameness : of limbs.

Itching : of scalp; of head; on scrotum; at right nipple; on left shoulder-blade; in armpits.

### **Tissues**

Rheumatic affections; so-called rheumatic inflammation of eyes; aural affections and sequelae.

Nervous and spasmodic affections.

! Nodes around joints, internally and externally.

! Watery swellings; dropsy; cachexies.

### **Touch. Passive Motion. Injuries**

Touch : seat of pain tender.

Pressure : soreness in neck and up into head amel; of both hands behind ears; amel pain in neck.

! Contusions; dislocations.

! Atrophy after wounds.

! Complaints from overlifting.

### **Skin**

Itch; cold tumors; goitre; leprosy.

### **Relations**

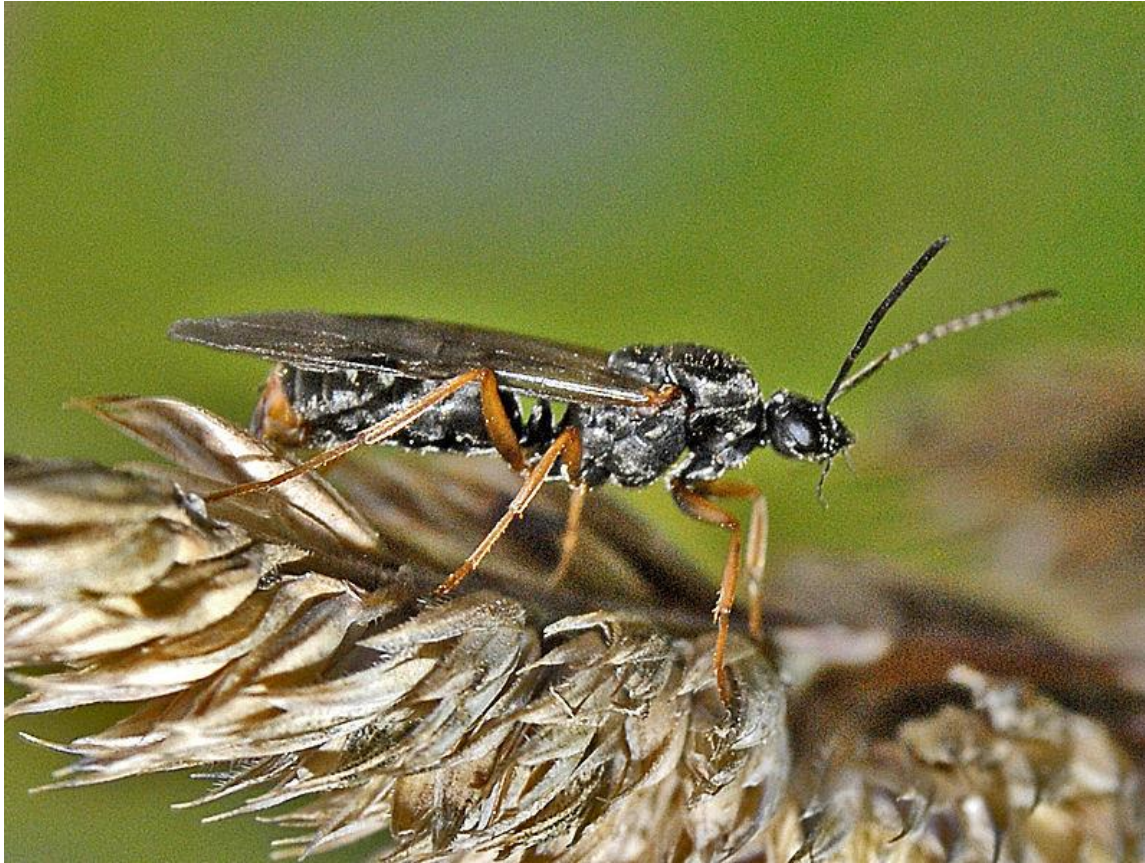
Compatible : after *Chamom.*

Compare : *Apis*, *Bryon.* (rheumatism), *Chloral* and *Urtica urens* (nettle-rash), *Dulcam.* (rheumatism), *Frag. ves.* (lack of mammary secretion), *Thrombid.* (diarrhoea)."

(Constantin Hering, The Guiding Symptoms of our Materia Medica, vol. 5 (1887), Formica rufa, p. 344-353)

[1] = Constantin Hering, Materia Medica, with a Pathological Index, Boericke & Tafel 1873, Formica, p. 208-240

## Leitsymptome und Charakteristika / Keynotes and Characteristics



# Leitsymptome und Charakteristika / Keynotes and Characteristics

## Übersicht / Overview

1871 - Constantin Hering

1900 - John H. Clarke

1915 - Cyrus M. Boger

1927 - William Boericke

## 1871 - Constantin Hering

"Einstweilen hier ein Schlüssel zur Anwendung der Ameise:

**Rückenmarkleiden, Lähmungen, Krämpfe**, wie in der alten Schule seit mehr als tausend Jahren, unter Modalitäten, wie sie hier bezeichnet werden.

**Rheumatismen**, plötzlich auftretend, mehrstens in den Gelenken, **mit dem Charakter der Unruhe; die Kranken wollen Bewegung, obschon dies die Schmerzen fühlbarer macht.**

**Druck bessert Schmerzen.**

**Schweiß ohne Erleichterung.**

Die Schmerzen fangen bei den Prüfern links an und gehen dann erst nach rechts; wenn dies bei den Kranken umgekehrt der Fall ist, also erst rechts, dann links, so hilft's gründlicher und bleibender, besonders hohe Bereitungen.

Die rechte Seite ist mehr und stärker befallen als die linke.

**Augenleiden**, besonders die sogenannten **rheumatischen Augenentzündungen mit ihren Folgen**, weit mehr aber noch **die Gehörmängel mannigfacher Art.**

Bei **Milchmangel der Frauen** und **Samenergiessungen der Männer.**

Die vorherrschende Tageszeit ist Nachmittags 2 bis 4 Uhr.

**Die Brennschmerzen erneuern sich durch Kaltwaschen.**

**Folgen der Kälte, der Nässe, des kalten Bades, feuchten Wetters.**

Oft half's, wo Chamomilla besserte, Belladonna nicht vertragen wurde; also gehört Formica auch wie die Biene in's Gebiet der **Säuren mit ätherischem Öle**, bei denen die Aromatica komplementär wirken. Formica scheint aber dem Narcotischen ebenso feindlich zu sein, wie Apis den Acrien (Rhus).

Diese zwölf Sätze sind freilich nichts weiter als vor 13 Jahren gemachte Randbemerkungen; denn etwa zwanzig Prüfungen, und etwa fünf oder sechs Mal so viele Heilungen sind nicht genug, dergleichen allgemeine Charakterzüge hinreichend zu bewahrheiten."

(Constantin Hering, M.D., Philadelphia, Die Ameise als Arznei, Allgemeine homöopathische Zeitung Bd. 82 (1871), S. 34)

## 1900 - John H. Clarke

**Description.** - *Formica rufa*. The Ant. N. O. Hymenoptera. Tincture from crushed live ants. Contains formic acid (HCO, OH).

**Clinical.** - Apoplexy. - Brain, affections of. - Bruises. - Chorea. - Cough. - Diarrhoea. - Dislocations. - Dropsies. - Eyes, affections of. - Facial paralysis. - Foot-sweat, checked, consequence of. - Gout. - Hair, falling out. - Headaches. - Nodes. - Over-lifting, complaints from. - Paralysis. - Rheumatism. - Sight, affections of. - Spine, affections of. - Spleen, pain in. - Throat, sore.

**Characteristics.** - *Formica* causes many rheumatic and gouty pains; the pains appear suddenly, and dart from place to place : left, then right; right, then left. The spinal cord is affected, paralyzes and spasms occurring. Sensation as if brain too heavy and large. Sensation as if a bubble burst in forehead. It is of use "in all kinds of apoplectic diseases. It strengthens the brain" (Hering). Cooper has given the 3x with success in cases of weakness of lower extremities.

J. W. Thomson (H. P., xvi. 32) reports the case of a gentleman, aged 84, who had severe neuralgic pains between posterior of right ear and centre of occiput. From this he apparently recovered. Eighteen months later he returned with a steady, sore, and burning pain in same region; swollen and tender around, but especially behind, right ear. He could only sleep in one comfortable position, which he could not describe, but only knew when he found it; and he must be covered up warmly behind right ear and between that and occiput and neck all right side. Better from taking right hand and rubbing gently behind right ear. *Sweat afforded no relief*; the whole head seemed to sympathize with the distress; he had dribbling of urine. *Formica rufa* was given, six doses, one before each meal. On the second day, towards evening, he felt worse, and on the third day there were twinges and spasms of severe pain in addition to the sore pain which he had before experienced. These gradually got better, and on the fourth day even the soreness was much better. The main thing, however, was that he felt mentally better; said his mind and head felt stronger, and from feeling depressed he had become cheerful, and life did not seem the burden it had for some time past.

Hering gives as an indication for *Formic acid*: "Burning pain, burning from washing; renewed burning from cold washing."

Symptoms are > after midnight. Motion <; also sitting. Hot irons > pain in neck. > By rubbing; by combing hair. Cold water application < (headache; burning pains). Great liability to take cold; consequences of cold and wet; cold bathing; damp weather. Clammy skin; disagreeable sweat during night; sweat without relief.

**Relations.** - *Compatible*: After Cham.

*Compare*: Ars., Bry., Dulc. (rheumatism); Urt. u. (nettle-rash; gout; rheumatism. Nettles contain Formic acid); Frag. v. (lack of mammary secretion); Tromb. (diarrhoea); Caps. (burning pains < by cold water).

**Causation.** - Checked foot-sweat.

### Symptoms

**Mind.** - Want of memory; in evening. Indisposed, morose, fearful, apprehensive. Exhilarated after pain in vertex abated. Mind unusually excited. Remarkable and unexpected activity of mind during the day, with absence of usual dulness and sleepiness.

**Head.** - Vertigo; all things seem to move to and fro, and reeling of body; pain in left supra-orbital region when going to bed, with dizziness; blackness before eyes, > by sitting down. Fulness; stupid feeling, with sensation of stiffness in neck. Dulness; pressure on both sides between temples and ears. Fore part of head aches with the cough. Sensation like a bubble

bursting in forehead, running around left side of head. Headache in left forehead and temple back to occiput, with cutting extending into ear. Headache with cracking in left ear, followed by pain in left temple, then in vertex with nausea and abatement of pain in forehead. Pain on top of head, shifting from epigastrium. In morning, headache in posterior, upper and inner part of head; < drinking coffee; each time during and after washing with cold water. Pain from neck up to back of head. Sensation running up into head from body like lightning. Headache, < sitting up in bed; > after combing hair. Itching of scalp. Hair ceases falling out. Contusions of head.

**Eye.** - Pain in left supra-orbital and left temporal region, the seat of pain being tender to touch; pain and aching over left eye; objects appear as if seen through a mist; blackness before eyes, must sit down for a few moments. Pain in eye when awakes, > by washing. Dim sight. Flickering before eyes. Nebula; leucoma; pterygium. Maculae and ulcers on cornea. Rheumatic ophthalmia. Spasmodic twitching of upper eyelid (right).

**Ear.** - Ringing buzzing in ears. Cracking in left ear with headache. Deafness. External sensitiveness of right ear and temple.

**Face.** - Entire left side of face and cheek feel as if paralysed.

**Throat.** - Sore throat in morning, with much mucus. Sore throat < left side.

**Stomach.** - Pain in neck when hawking and gargling; when eating and drinking, esp. when closing jaws. After drinking tea copious sweat. Nausea and vomiting; with diarrhoea; in evening; with cough. Burning pain in stomach, with oppression and weight. Constant pressure at cardiac end of stomach, and a burning pain there.

**Abdomen.** - Dull pain in region of spleen. Sensation across abdomen as if bruised below navel, also tired feeling in back. Flatulence. Hardening of mesenteric glands.

**Stool and Anus.** - Diarrhoea after meals, or only during day, not at night; or day and night, or before midnight. Diarrhoea with tenesmus; pain in bowels before stool. Loose diarrhoeic stool, with feeling as if more was to pass. White stools. Constipation and sensation of constriction in sphincter. Pressure in rectum, < evening and in bed. Painful desire in anus and rectum for stool, which, however, will not pass. Tape-worm.

**Urinary Organs.** - Paralysis of bladder. Double the quantity of urine, even at night; increased for two or three days. Urine like saffron; bright yellow; no sediment; passed frequently.

**Male Sexual Organs.** - Long-lasting erections after urinating in morning. Seminal emissions. Scanty ejaculation with incomplete erection.

**Female Sexual Organs.** - Menses scanty and pale, with bearing-down pains in back third day; fourth day darker; crampy pain through hip-joint and pelvis. Menses appear eight days too soon. Lack of milk with nursing women.

**Respiratory Organs.** - Hoarseness with sore throat. Small piece of phlegm in throat, which cannot be brought up by coughing. Cough tedious and long lasting; < at night and from motion; with an aching in forehead and a constrictive pain in chest. Violent attacks of cough, with vomiting, day and night.

**Chest and Heart.** - Pleuritic pains. Uneasy pain in region of heart. Fluttering palpitation. Violent penetrating pain in region of right nipple. Violent prickling pressing stitches in region of left nipple, later on left side of back, but more violent; still later the same sensation on other parts of the body.

**Neck and Back.** - Soreness in neck and up into head. Severe pain left side of neck while chewing. Stiffness left side of neck extending down left arm; < by least motion; turn, or twist; >by application of a hot iron. Severe pain across sacrum and dorsum of each hand. Affection

of spinal cord.

**Limbs.** - Sensation as if muscles were strained and being torn from attachment. Rheumatism appearing suddenly, mostly in joints, with restlessness; patients desire motion, although it < pains; > by pressure; sweat without relief; < right side. Stiffness and contraction of joints.

**Upper Limbs.** - Itching in armpits in morning. Pain from neck down left arm; in evening to right; could scarcely move her arm. Severe pain above right elbow.

**Lower Limbs.** - Severe pain through pelvis as if from one acetabulum to the other. Bruised pain in hips at night, causing him to change from side to side. Chronic gout. Checked foot-sweat (chorea from).

**Sleep.** - All night dry throat, woke her out of sleep. Disagreeable sweat during night, awoke with clammy skin. Could get to sleep if she could get the right position. Wakes early, and feels she has had sufficient sleep. On awaking: headache; vomiting with headache; pain in eyes; stitches in ears.

(John Henry Clarke, A Dictionary of Practical Materia Medica, vol. 1 (1900), Formica, p. 786-788)

### 1915 - Cyrus M. Boger

#### REGION.

**Joints.**

**Spine.**

Liver. Kidneys.

Right Side.

#### WORSE.

Cold; Wet. Motion.

Before Snow-storms.

#### BETTER.

Pressure.

**Sudden rheumatic or gouty pains.** Takes cold easily. Tuberculosis. Hyperplasia.

Light, foaming stools. Hydrops ovarii. Nervous asthma. Hives, in fat plaques. Profuse sweat, without relief.

Related: Rhus-t. Urt-u.

(Cyrus M. Boger, M.D., A Synoptic Key to the Materia Medica, 1st edition, 1915, Formica, p. 198)

### 1927 - William Boericke

An arthritic medicine. Gout and articular rheumatism; pains worse, motion; better, pressure. Right side most affected. Chronic gout and stiffness in joints. Acute outbursts of gouty poisons, especially when assuming the neuralgic forms. Tuberculosis, carcinoma, and lupus; chronic nephritis. Complaints from overlifting. Apoplectic diseases. *Has a marked deterrent influence on the formation of polypi.*

**Head.** - Vertigo. Headache with cracking in left ear. Brain feels too heavy and large. Sensation as if a bubble burst in forehead. Forgetful in the evening. *Exhilarated.* Coryza and *stopped-up* feeling in nose. Rheumatic iritis. *Nasal polypi.*

**Ears.** - Ringing and buzzing. Cracking in left ear with headache. Parts around ear feel swollen. Polypi.

**Stomach.** - Constant pressure at the cardiac end of the stomach, and a burning pain there. Nausea, with headache, and vomiting of yellowish bitter mucus. Pain shift from stomach to vertex. Gas cannot be passed.

**Abdomen and Stool.** - In the morning, difficult passages of small quantities of flatus; afterwards diarrhoea-like urging in the rectum. Pain in bowels before stool, with shuddering chilliness. Constriction in the anus. Drawing pain around navel before stool.

**Urine.** - Bloody, albuminous, with much urging; quantities of urates.

**Respiratory.** - Hoarseness, with dry, sore throat; cough worse at night, with aching in forehead and constrictive pain in chest; pleuritic pains.

**Sexual.** - Seminal emissions; weakness. "Slothful to venery".

**Extremities.** - Rheumatic pains; stiff and contracted joints. Muscles feel strained and torn from their attachment. *Weakness of lower extremities.* Paraplegia. Pain in hips. *Rheumatism comes on with suddenness and restlessness. Sweat does not relieve.* Relief after midnight and from rubbing.

**Skin.** - Red, itching and burning. Nettle-rash. Nodes around joints. [*Ammon. phos.*] Profuse sweat without relief.

**Modalities.** - Worse, cold and cold washing, dampness, before a snowstorm. Better, warmth, pressure, rubbing. Combing hair.

**Relationship.** - Compare: *Formic acid.* (Chronic myalgia. Muscular pains and soreness. Gout and articular rheumatism, which appear suddenly. Pains usually worse on right side, motion and better from pressure. *Failing vision.* Increases muscular strength and resistance to fatigue. Feels stronger and more "fit" in ordinary walking. Marked diuretic effect, greater elimination of products of disassimilation, particularly urea. Tremor. Tuberculosis, chronic nephritis and carcinoma, lupus, etc., have been treated successfully with injections of Formic acid of a dilution corresponding to the 3d and 4th centesimal. In prescribing it for varicose veins, polypi, catarrh, Dr. J. H. Clarke orders an ounce or two of a solution of Formic acid in the proportion of one part of the acid to eleven of distilled water. Of this one teaspoonful is taken in a tablespoonful of water after food once or twice daily. Pain in aponeurosis and muscles of head, neck and shoulders before a snowstorm.)

*Rhus; (Dulc., Urtica and Juniperus contain Formic acid),* Wood alcohol, when taken as a constituent of a beverage so common in these prohibition days, is not eliminated easily and is slowly converted into Formic acid, attacking the brain and causes death or blindness.

Dr. Sylwestrowicz of the Hering Research Laboratory of Hahnemann College, Philadelphia contributes his experience with Formic Acid, as follows:

"The best field for the formic acid treatment are cases of atypical gout. Under this classification are to be mentioned disturbances in the muscles such as myositis, periostitic processes of the bones in form of doughy swellings, changes of the fascias such as Dupuytren's contraction, skin troubles such as chronic eczema, psoriasis and loss of hair, kidney disturbances such as subacute and chronic nephritis. In these cases formic acid in 12x and 30x, hypodermically 1 cc. is indicated at intervals of 2-4 weeks. Eight till twelve days after the first injection an aggravation is often noticed.

In acute rheumatic fever and acute gonorrhoeic arthritis formic acid 6x, every six days 1cc., sometimes 12x in sensitive patients shows often splendid results abolishing the pains and preventing reoccurrence.

Chronic arthritis needs a special discussion. Clinical experiments of the Hering research Laboratory of the Hahnemann Medical College of Philadelphia on a great number of cases of arthritis with formic acid showed that it preferably acts on the ligaments, capsula and bursa of the joints. Such kind of cases respond very readily to treatment.

The prognosis depends to a large extent upon the etiology of the case. The most satisfactory cases are chronic arthritis in connection with gouty diathesis. Chronic arthritis following an attack of acute rheumatic fever shows also remarkable results although often pains of a

neuralgic character persisting in certain spots are very stubborn. Finally chronic arthritis of traumatic nature can be cured by formic acid. In the latter case formic acid 6x showed quicker and better results than 12x or 30x which are indicated in the previous cases. In general the disappearance of the stiffness of the joint is the first sign of improvement. Then the pain and swelling cease gradually in 1-6 months time.

The prognosis of the formic acid treatment is not so favorably in chronic arthritis in which deformans processes have already taken place on the articular surfaces. Such processes in the beginning can be checked completely, advanced cases frequently show an improvement. But there is always the possibility that this improvement is only temporary. This is particularly to be expected in the cases of the so-called arthritis deformans in which even the inflammations on the ligaments and capsula are of a very progressive character".

(William Boericke, M.D., Pocket Manual of Homoeopathic Materia Medica, Ninth Edition, New York 1927, Formica Rufa, p. 290-292)

## **Kommentare / Commentaries**



Cyrus Maxwell Boger (1861-1935)

## Kommentare / Commentaries

### Übersicht / Overview

1871 - Die Ameise als Arznei - Constantin Hering

1898 - A Fragment in re Formica rufa - Samuel A. Jones

1903 - The Characteristics of Formica - Cyrus M. Boger

### 1871 - Die Ameise als Arznei - Constantin Hering

"Im Jahre 1851 war festgestellt worden, dass das Bienengift keine Ameisensäure enthalte. Siehe Amerikanische Arzneiprüfungen Seite 196. Dass Beide identisch seien, war eine oberflächliche Vermuthung Meckel's, eine unverschämte Behauptung Will's. Obschon der streng chemische Beweis bereits 1853 gedruckt worden ist, findet man doch in Hasselt und sogar in der Husemann'schen Ausgabe noch immer dieselbe Behauptung, ohne dass irgend wer zu den so leicht anzustellenden Versuchen sich veranlasst gefunden hätte. So machen es die Experten, die an der "Spitze der Scientification einhermarschiren".

Als die Untersuchung des Bienengifts abgeschlossen worden war, und mit einem so grossartigen Erfolge die viele Arbeit gelohnt hatte, musste sich die Aufmerksamkeit auf die den Bienen so nahe verwandten Ameisen lenken. Diese Arbeit wurde auch sofort in Angriff genommen. Einem Schüler Schönlein's musste sogleich aufgefallen sein, dass, wie das Bienengift der ganzen Familie der Erysipelaceen entsprach, so das der Ameisen den Rheumatismen zu entsprechen schien. Und so wie die Biene eins der grössten Augenmittel geworden war, so versprach es die Ameise für die Ohren zu werden, u. s. f. Es könnten dergleiche Parallelen sehr viele noch vorgebracht werden, sie sind wohlfeil und beim grossen Haufen überaus beliebt, finden aber bessern Abgang und Eingang, wenn sie mit pomphaften technischen Termen, im Rauphastosstyle unserer sogenannten Fortschrittsleute vorgetragen werden.

Schon die Berichte aus den alten dicken Büchern, die oft Brauchbareres enthalten als die neueren, die mehr dicke thun, lieferten eine lange Liste des zu Beachtenden. Die Prüfungen gaben sehr bald Aufschluss, in **welchen bestimmten Fällen** der früher nur durch Namen oder durch Redensarten bezeichneten "Krankheiten" die Ameise **hilfreich sein müsse**. Das ist, was wir exact nennen und seit Hahnemann gethan haben. Aber Nussknacker haben einen andern Begriff des Exacten; was nicht geknackt ist, halten sie nicht für exact.

Als eine der besten Bereitungen sowohl beim Prüfen, als auch bei Heilversuchen, zeigte sich der Ameisenspiritus. Wir nahmen einen, der in Deutschland, aus zerquetschten Ameisen, Formica rufa, destillirt worden war; er hatte neben dem lieblichen Äthergeruche noch als Nebengeruch einen fast an's Faulige erinnernden. Später gelang es, eine Sammlung der hiesigen grossen Ameisen, Formica sericca Gray in Alkohol zu erhalten, und es wurde beschlossen, die Tinctur dieser amerikanischen Ameise durch die amerikanischen Studenten prüfen zu lassen.

Dr. Lippe hatte schon (1857, d. 28. Februar) die Jenichen'sche Bereitung der Formica rufa 200. an sich selbst geprüft, und seine Zeichen stimmten ausserordentlich mit obenerwähnten ihm unbekanntem. Er übernahm nun die Prüfung der Tinctur der Formica sericca zu leiten und bekam zwölf werthvolle Berichte.

Als die Amerikanischen Arzneiprüfungen in Deutschland einen Verleger fanden, es versteht sich, ohne irgend ein Honorar zu verlangen, weil der Verfasser schon das als einen Ehrensold betrachtete, dass er angeschnauzt, angebellt, und bepinkelt wurde, traf sich's, dass der erste Band in einen andern Verlag übergehen musste. Der neue Verleger erbot sich am Schlusse des ersten Bandes (1856) einen zweiten Band zu drucken. Für diesen zweiten Band war ausser der

durch die Stimmen der Abnehmer gewählten Arzneien auch die Ameise bestimmt. Aber der Verleger starb, und der Verfasser wendete seine Zeit an andere ebenso brodlose Untersuchungen. Endlich kamen die gesammelten Ameisenpapiere zum Behufe einer Bearbeitung in englischer Sprache auf seinen Arbeitstisch. Von diesem verschwanden sie spurlos! Ob unter diesen vielen anderen Handschriften, blieb unentschieden. Diese Handschriften sind sehr sorgfältig in viereckige Papierschachteln geordnet, wie sie die Putzmacherinnen in ihren Läden haben, wo auf den Schildern der Inhalt bezeichnet ist. Solcher Kästen giebt es etwa 70, in jedem Jahre kommen neue dazu.

Aus der grossen Pappschachtel, wo bei der Brennessel, bei den Raupenvergiftungen, neben Baumscheidtischen Auszügen, auch diese Ameisenberichte ihren Platz gehabt hatten, war alles die Ameise Betreffende verschwunden und blieb's, wurde daher nach vielfachem Suchen hoffnungslos auf die Verlustrechnung gesetzt.

Am Danksagungstage, den 24 November 1870, am Tage nach der silbernen Hochzeitfeier im Hause, wurden die Schriften über das Rechts und Links in vier Foliomappen geordnet, und siehe! da kam das verlorene Kind zwischen dem Rechts und Links heraus. Kein Zettelchen fehlte! Sehr bald wird Alles nun hier in Englisch abgedruckt werden, und eine Übersetzung in's Deutsche steht zu Diensten, denn Rückübersetzungen sollten eigentlich nie geduldet werden.

Einstweilen hier ein Schlüssel zur Anwendung der Ameise:

**Rückenmarkleiden, Lähmungen, Krämpfe**, wie in der alten Schule seit mehr als tausend Jahren, unter Modalitäten, wie sie hier bezeichnet werden.

**Rheumatismen**, plötzlich auftretend, mehrstens in den Gelenken, **mit dem Charakter der Unruhe; die Kranken wollen Bewegung, obschon dies die Schmerzen fühlbarer macht.**

**Druck bessert Schmerzen.**

**Schweiß ohne Erleichterung.**

Die Schmerzen fangen bei den Prüfern links an und gehen dann erst nach rechts; wenn dies bei den Kranken umgekehrt der Fall ist, also erst rechts, dann links, so hilft's gründlicher und bleibender, besonders hohe Bereitungen.

Die rechte Seite ist mehr und stärker befallen als die linke.

**Augenleiden**, besonders die sogenannten **rheumatischen Augenentzündungen mit ihren Folgen**, weit mehr aber noch **die Gehörmängel mannigfacher Art.**

Bei **Milchmangel der Frauen** und **Samenergiessungen der Männer.**

Die vorherrschende Tageszeit ist Nachmittags 2 bis 4 Uhr.

**Die Brennschmerzen erneuern sich durch Kaltwaschen.**

**Folgen der Kälte, der Nässe, des kalten Bades, feuchten Wetters.**

Oft half's, wo Chamomilla besserte, Belladonna nicht vertragen wurde; also gehört Formica auch wie die Biene in's Gebiet der **Säuren mit ätherischem Öle**, bei denen die Aromatica complementär wirken. Formica scheint aber dem Narcotischen ebenso feindlich zu sein, wie Apis den Acrien (Rhus).

Diese zwölf Sätze sind freilich nichts weiter als vor 13 Jahren gemachte Randbemerkungen; denn etwa zwanzig Prüfungen, und etwa fünf oder sechs Mal so viele Heilungen sind nicht genug, dergleichen allgemeine Charakterzüge hinreichend zu bewahrheiten. Diese überflüssige Bemerkung wird freilich kaum abhalten, nun dennoch die Backen recht voll zu nehmen und zu blasen über solch "unvollkommene Andeutungen" nach Art jenes Handbuchs auf dem

seligen Standpunkte; oder, man stellt sich auf den Standpunkt vor dem deutschen Kriege; nämlich: da die Ameisen weiblichen Geschlechts sind, könnte man dem Püppchen eine Krinoline umhängen und einen Chignon oben hinten an, das kostet nicht viel mehr als eine Hand voll pathologischer Phrasen, da würde die Dirne schon an den Mann gebracht werden können oder Halbmänner auf der Strasse finden.

Wem aber ernstlich daran gelegen ist unserer Arzneilehre ihre streng wissenschaftliche Sicherung sichern zu helfen, der hat Gelegenheit mitzuarbeiten, Bausteine zu brechen oder Schanzen zu bauen. In alten Büchern und in Reisebeschreibungen ist noch vieles zerstreut. Wir müssen jedes Gift in seinem ganzen Umfange kennen zu lernen suchen.

Die allervollkommenste Bereitung der deutschen Ameise wäre folgende. Wenn man in einen wimmelnden Ameisenhaufen hineinstört, besonders an heissen Sommertagen, so erhebt sich ein sehr feiner Sprühregen ausgespritzter Tröpfchen, bewegt man eine Steingutschaale darüber hin, so lassen sich diese Tröpfchen sammeln und sogleich mit reinem Weingeist, als den besten Träger, zusammenspülen und wenn die Schale ein Schnäuzchen hat, bequem in ein Fläschchen giessen.

Man wird freilich dieses Rath ebenso wenig befolgen als den beim Bienengifte ertheilten, das reine Gift aus dem Stachel in Alkohol aufzufangen, "das mag besser sein" heisst es, "aber sieht nach nichts aus und verkauft sich nicht". Warum nicht gleich ganze Bienenkörbe auf der Mühle mahlen lassen? Das verkauft sich am Ende pfundweise und noch besser! So wird man's auch für viel handgreiflicher halten, ganze Ameisenhaufen in Säcke zu schaufeln und nach Hause zu schleppen. Ei nun! wer Säcke schleppen will, der schleppe."

(Constantin Hering, M.D., Philadelphia, Die Ameise als Arznei, Allgemeine homöopathische Zeitung Bd. 82 (1871), S. 33-34)

### **1898 - A Fragment in re Formica rufa - Samuel A. Jones**

"One of the pleasures of married life is that it develops and furnishes a garret - that multifarious omnium gatherum - to ransack, which on a rainy day affords a series of never-ending surprises. Happy the boy and the girl who have such a resort! For instance, my own co-partner in the "Infantry" line was beguiled into visiting our garret this very day. Speedily, she descends on me with her spoils; an armful of "truck", which she wishes to know "what on earth it is good for." There is something in the dulcet tone of her enquiry which my prophetic soul tells me "means business;" so I dropped Stephen Paget's "*Ambroise Pare and His Times*" to sort the "stuff." (I may say, in the strictest confidence, I never retreat from a family "engagement" - until I have to - but I am the daisiest of diplomats in keeping out of them. *Verbium sap.*)

Very soon six pages of yellow manuscript engage my attention. It is my own "cacography," as my old writing teacher delighted to call it. It is some thirteen or fourteen years old. I have thought it worth while the transcribing for the RECORDER. Take it for what it is worth, and at your own estimation. It was induced by the reading of an old book; there were no "patients" that afternoon, and I at least "stood off" the devil during the writing of it.

Some two hundred and fifty years ago John French, Doctor of Physick in the realm of Great Britain, committed to the press of Richard Cotes the painfully written (and in that day "painfully written" meant pains-takingly written) manuscript of a learned book bearing the following exuberant title: "*The Art of Distillation, or a Treatise of the choicest Spagyricall Preparations performed by way of Distillation, being partly taken out of the most select Chymicall Authors of severall languages, and partly taken out of the Author's manuell Experience; Together with The Description of the chiefest Furnaces and Vessels used by the Ancient, and Moderne Chymists: Also A Discourse of divers Spagyricall Experiments and Curiosities, and*

of the *Anatomy of Gold and Silver*, with the chiefest *Preparations* and *Curiosities* thereof, and *Vertues* of them all."

These words which I have put into italic dress Richard Cotes, duly instructed by Dr. John French, printed in red ink, which shineth to-day on the time-stained paper and maketh a pie-bald page, as a glance thereon will testify to the most incredulous reader hereof.

But our present concern is with p. 199 of Book 4, whereon is to be found the following:

**"Kunrath's Famous Water, Called Aqua Magnanimitatis."**

"Take of Pismires, or Ants (the biggest, that have the sowrish smell, are the best), two hand-fuls, spirit of Wine a Gallon, digest them in a Glass vessel close shut, the space of a month, in which time they will be dissolved into a Liquor, then distill them in *Balneo*, till all be dry. Then put the same quantity of Ants as before, digest, and distill them in the same Liquor as before: doe this three times, then aromatize the Spirit with some Cinnamon.

"Note that upon the Spirit will float an Oil, which must be separated. This spirit is of so excellent use to stir up the Animall Spirit in so much that John Casmire, Palse-grave of the Rhene and Seyfrie of Collen Generall against the Turks did always drinke of it when they went to fight, to increase Magnanimity and Courage, which it did even to admiration.

"This spirit doth also wonderfully irritate them that are slothful to Venery.

"It also provoketh urine even to admiration. It doth also wonderfully irritate the Spirits that are dulled, and deaded with any cold distemper.

"This Oil doth have the same effects, and indeed more powerfully. This Oil doth, besides what is spoken of the Spirit, help deafness exceedingly, two or three drops being dropped into the Ear, after it is well syringed, once in a day, for a week together.

"It also helpeth the Eyes that have film growing on them, being now and then dropped into them."

Now, turn, please, to Allen's Encyclopedia, *Sub voce* "Formica Rufa", and read the prover's evidence:

"Mind unusually excited," is one report. "An exhilarated condition, like that produced by drinking champagne." Make a note of that, please. "All day very happy and inclined to be jolly." "During the day remarkably happy and able to study; everything seems easy to be accomplished."

Here are three different witnesses in the nineteenth century, and all in full accord with John Casimir, Palgrave of the Rhine, and Seyfrie, of Cologne, as to the statement that the "spirit" of the species Formica Rufa can be used "to stir up the animall Spirit."

Hering, whom nothing escaped, gives us, "Exhilarated condition after pain in the vertex had abated." Hering also gives, as a symptom derived *ab usu in morbis*, "Indisposed, forgetful, morose, fearful and apprehensive." Ah! that is not in the proving, says some ardent "purifier" of our Materia Medica. True, my carper, but it is most assuredly the *physiological oscillation of the other end of the arc*, without the arc were incomplete; and it is an instance, wherein Hering's knowledge arraigns your ignorance. Hering, in his quiet way, was up to such tricks. We have more than one exhibition of his insight. For instance, he gives us as a clinical symptom derived from cures, "Want of memory; forgetful in the evening." Now does not one prover in the Encyclopedia record this: "During the day remarkably happy and able to study?" Couple this statement of time with Hering's finding in a patient, having other symptoms of Rufa, "forgetful in the evening." How true it is that we can see only that which we have learned to see. Yours is a pitiful hemiopia; you can't see the whole of anything; you discern only the left half of the face, while the distinguishing mole is on the right half. You declare that what you

can't see, therefore, is not there!

Moreover, let such as are "slothful to Venerly" turn to the *Encyclopedia* again, *Formica Rufa*, symptoms 163 and 166, and learn how homoeopathically the "Spirit" of the busy ant promises to correct such shameful indolence. Now open Hering's "Guiding Symptoms," Vol. V, p. 347. Clinical symptoms again: It, this same "Spirit" and potentized at that, has cured "Seminal emissions." "Weakness of sexual organs." (isn't it hard to kick against the pricks!)

"It provoketh urine even to admiration," says Dr. John French, and, lo!, one of the modern provers record this: "Double the quantity of urine, even at night (third day); increased for two or three days" - surely, an increase "even to admiration;" and, dear reader, in those days to *admire* meant to wonder.

As for deafness, we have no direct hint in the *Encyclopedia*, but following other symptoms indicating *Rufa*, Hering has cured "Difficult hearing; deafness" with this remedy.

"It also helpeth the eyes that have the film growing over them," avereth Dr. John French; and, sure enough! one of our modern provers says: "Appearance when looking at objects as if seen through mist." Clinically, Hering records: "Dimness of sight." "Nebula; leucoma; pterygium."

Really, thou that wert John French, it seemeth unto me that thou didst testify to the truth in thine "Art of Distillation;" and at no distant day I will reprint thine "Anatomy of Gold" for modern eyes to read. "But, thou that wert John French hast met thy revered Master in the Beyond? By the term "anatomy of gold" I know thou wert a Paracelsian; hast met him *There*?

How many moderns will know what the "anatomy of gold" means? Paracelsus "uses common words in new signification without giving any indication of the change which he introduced. Thus *anatomy*, in the writings of Paracelsus, signifies not the dissection of dead animals to determine their structure, but it means the nature, force and magical designation of a thing!" <sup>(1)</sup> Then, reader, keep an eye open for Dr. French's "anatomy of gold" - it will make a neat little addendum to Dr. Burnett's instructive booklest on the metal that peoples Perdition by the lust for it.

(1) Thomson's History of Chemistry, Vol. I, p. 151. Edinburgh. 1830.

Thus far went the MS. from the garret, but while it was slumbering there a delightful English naturalist's book led me to try *Formic acid* as a remedy in a case of pulmonary tuberculosis - alas, in vain!

But there is the hint that led me try it: "Possibly we may yet use ants or some other clever insects to find out the origin of the fatal parasite which devours the consumptive. Some reason exists for imagining that this parasite has something to do with the flora, for phthisis ceases at a certain altitude, and it is very well known that the floras have a marked line of demarcation. Up to a certain height certain flowers will grow, but not beyond, just as if you had run a separating ditch round the mountain. With the flora the insects cease; whether the germ comes from the vegetation or from the insect that frequents the vegetation does not seem known. Still it would be worth to make a careful examination of the plant and insect life just at the verge of division. The bacillus may spring from a spore starting from a plant or starting from an insect. Most of England had an Alpine climate once, and some Alpine plants have been stranded on the tops of our highest hills and remain there to this day. In those icy times English lungs were probably free of disease. *Has formic acid ever been used for experiments on bacilli?* It is the ant acid; they are full of it, and it is extracted and used for some purposes abroad. Perhaps its strong odour is repellant to parasites." <sup>(2)</sup>

(2) Jefferies. "Field and Hedgerow," p. 207. Longman's Green and Co. 1890.

Ah, it was but a forlorn hope; and that patient sufferer did not need the "spirit" of the ant to give her that cheerful courage with which she trod the path to dusty Death.

To be sure, I snatched at a surmise and fruitlessly; but see how suggestive Hering's observations are as recorded in his "Guiding Symptoms:"

"Hoarseness with sore throat; tedious and long-lasting cough; cough aggravated at night; cough with an aching in the forehead and a constrictive pain in the chest; all night dry throat, woke her out of sleep; disagreeable sweat during the night, awoke with clammy skin; general lassitude and prostration; pleuritic pains; inner chest and lungs."

Is not this category, gathered at random, sadly significant of work done in the territories that the fell destroyer notably affects; does it not give a strange impressiveness of the fancy of the naturalist (who himself perished from a tubercular devastation) and to the suggestions regarding the sphere in which *Formica Rufa* is operative?

Reviewing at this late day the work of an idle hour in the long-ago, the reflection comes to me that the truths in our pathogeneses are "surrounded with witnesses," amongst whom is he that was Dr. John French, now sleeping in some long-forgotten grave, but testifying from the pages that remain to also testify to the workmanship of him that was Richard Cotes. Peace be theirs and the blessing that attends all honest work!"

(Samuel A. Jones, A Fragment in re *Formica rufa*, The Homoeopathic Recorder vol. 13 (1898), p. 193-198)

### **1903 - The Characteristics of Formica - Cyrus M. Boger**

"Formic acid is present in pine shoots, old oil of turpentine, the stinging hairs of nettles and caterpillars, the stinging fluid of neuter and female ants, wasps, bees, jelly fish and sea nettles, etc.; the sand wasp uses this secretion for the preservation of the food deposited alongside its larvae for feeding the future young; all these cause irritation, stinging, burning and nettle rash. The pure acid and nettles cause vesication, the former sometimes going on to sloughing. Formic acid, like chloral, renders the blood darker, probably by forming hematin through the decomposition of oxyhemoglobin. Formic acid is artificially produced in many ways, the best known being probably that of heating oxalic acid and glycerin, adding a small quantity of water.

Plants and insects containing this acid have been used from the most ancient times and among primitive peoples for gout, rheumatism and loss of muscular power, being mostly applied as counter-irritating flagellations with nettles, or stimulating embrocations made from ants. Gerrard's indication for nettle tea was: "Patient is unable to breathe without holding the neck upright." In gout he recommended a preparation made by enclosing flowers of lily of the valley in a stopped bottle in an ant-hill for one month; the resulting liquor was applied externally. Rubbing a cock's heart with nettles to make it hatch hen eggs is spoken of by Goldsmith.

The oil of nettle seed is mentioned as a powerful sexual stimulant by Fernie. Nettle stings are popularly cured by rubbing with dock leaves. A distilled spirit of ants was formerly used to increase courage and irritate them that are slothful to venery; to augment the urine and animate dulled spirits; see article by S. A. Jones. (Homeopathic Recorder, v. 13, p. 194.)

Nettle is used among us for burns, gout, chicken-pox, acute oedema, nettlerash, gravel and uric acid intoxication. It is a curious fact that the mere presence of corrosive sublimate will induce a true violent mania in some ants. The bee is reputed to be the most jealous of insects.

### **Symptoms.**

Mental exhilaration and activity.

Congestion of heart and chest.

Sensation of a nail pressing into head, (clavus) with fluent coryza.

Headache; better by combing the hair.

Before a snowstorm pain in aponeurosis and muscles of head, neck, shoulders and back.

Pain in eyes > by washing.  
 A cool burning, like snowflakes, falling on conjunctiva.  
 Intolerable itching of conjunctiva (rheumatic inflammation of eyes, clinical).  
 Deep-seated itching in ear.  
 Entire left side of face and cheek feel paralyzed, and as if hanging down loosely.  
 Periodical toothache.  
 Taste rancid after eating fats.  
 Cooling feeling, as from mint drops in throat.  
 Sensation of burning or heat in stomach.  
 Pressure, as if something lodged in cardiac end of stomach.  
 Diarrhoea. Soft stool, with burning irritation of anus and great weakness in bowels.  
 Double the quantity of urine. Paralysis of bladder; urine dribbles.  
 Great sexual excitability (30th potency).  
 Asleep feeling in sexual parts on ascending stairs.  
 Sudden pain in left lung, then sensation of falling.  
 Shooting pains in back and down thighs and arms; prickling of skin in region of pain.  
 Asleep feeling in arms and hands while riding in a carriage.  
 Suppuration under fingernails; they loosen and fall off.  
 Rheumatic pain in lower extremities.  
 Shifting pains and restlessness.  
 Cramp in soles, under toes at night, always in a small spot.  
 Flat oedematous swellings, looking like erysipelas, with itching.  
 Great muscular weakness.  
 Very susceptible to cold (reverse, Apis), < wind.  
 Wretched feeling, causing one to gape and stretch.  
 Languor; pains in limbs; chill along spine.  
 Symptoms < on right side.  
 Pressing burning in small spots.  
 Prickling, as of nettles.  
 Itching, or burning itching in many parts; > scratching.  
 Sleepiness, or alternation of wakefulness and sleep.  
 Lewd dreams.  
 Sweat without relief.

**Aggravation.** - The burning is aggravated by cold washing, like Caps.

**Amelioration.** - Gentle rubbing.

**Comparisons.** - Apis, Vespa, Urtica urens, Pinus sylvestris, Medusa, Fragaria, Chloral all cause oedema, itching, stinging and burning of skin.

Mercurius cor. stopped all symptoms.

Secretions Increased. - Urtica urens (sweat, milk, urine); Medusa (milk, urine) ; Pinus syl. (bronchial secretions, urine) ; Formica (urine).

Secretions Decreased. - Apis (urine, skin) ; Vespa (skin) ; Fragaria (milk).

Chilliness. - Formica, Pinus syl., Urtica urens (moist, cold).

Heat and Sense of. - Apis, Vespa, Chloral, > sweating.

Snow Air Agg. - Formica, Urtica urens.

Abdominal Soreness. - Apis, Urtica urens.

Discharge of Worms. - Urtica urens, Pinus syl., Fragaria.

Pinus sylvestris combines rheumatic, bronchial and urticarious symptoms; the chest seems thin and about to give way. Compare Thuja."

(Cyrus M. Boger, M. D., Parkersburg, W. Va., The characteristics of Formica, Proceedings of the International Hahnemannian Association 1903, p. 159-163)

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