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THE GERMICIDAL, ANTIZYMOTIC, ANTISEPTIC, AN- TIPYRETIC, DISINFECTANT, AND OTHER MED- ICAL PROPERTIES AND APPLICATIONS OF NITROHYDROCHLORIC ACID.

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In the eager search for new remedies, and especially in the present earnest quest for more efficient germicides and antipyretics, we are apt to overlook the known merits or undiscovered properties of the old ones; whereas, while we welcome the new, we should cherish the old and good, and seek the additional advantages which a closer scrutiny of them affords. Of none is this more true than the agent under consideration—nitrohydrochloric acid, which, as its name indicates, is a compound of nitric and hydrochloric acids in different proportions, by their combination forming the well-known nitrohydrochloric acid, or aqua regia. This agent is endowed with a series of remarkably valuable medicinal and other qualities rendering it applicable for a wide range of sanative and remedial purposes, as well as useful in the arts. Thus, as it yields free chlorine in a nascent and most active state, appreciable by the taste and smell, in an acceptable, easily tolerated and agreeable form, it constitutes at least one of the most powerful, safe, and useful germicides, antizymotics, antiseptics, and disinfectants known. Moreover, it probably supplies nascent oxygen from the reaction of its constituents, another potent antizymotic, antiseptic, disinfectant, oxidizer, chemico-organic alterative, purifier, resolvent, nutrient and vitalizer; while altogether it is antalkaline, germicidal, refrigerant, febrifuge or antipyretic, antiseptic, antizymotic, antitoxic, antiperiodic, antiscorbutic, antihæmorrhagic, antiphlogistic, antipyric, antilithic, alterative, disinfectant, sialogogue, cholagogue, laxative, diuretic, secernent, depurant, resolvent, digestive, stimulant, vivifying, restorative and tonic, its acidulous, oxidizing, purifying, refreshing, digestive, invigorating, vitalizing, and other salutary properties rendering it very acceptable to the stomach and animal economy, thus forming a rich and peculiar combination of sanative and medicinal qualities, independent of its extraneous adaptation in the arts.

With few exceptions, mainly from local lesions in the gastro-intestinal canal and kidneys, nitrohy-

drochloric acid is generally applicable in all pathological states of superalkalinity of blood and system, local and constitutional, benign and malignant, such as scorbutic, purpuric, hæmorrhagic, inflammatory, suppurative, gangrenous, ulcerative, purulent, sanious, dropsical, and analogous disorders, especially of a toxæmic, lithæmic, uræmic, bilious, albuminuric, serous and mucous character, and of a more malignant type, as pernicious fevers and conditions generally. It is particularly efficacious in all superalkaline, scorbutic, zymotic, septic, contagious, malarial, toxæmic, cholæmic, and uræmic diseases, adynamic fevers, and infectious affections, with those maladies dependent upon a necræmic, mephitic and putrescent condition, even with local lesions both internally and externally, though rather too active and laxative in general for those in the gastro-intestinal canal connected with typhoid or enteric fever, cholera, and like abnormalities, for which the milder and more astringent hydrochloric, sulphuric, phosphoric, hydrobromic, and other less exciting acids are usually preferable, separately or with their compounds of iron and lime more especially, which increase their constringing, styptic, tonic, and healing properties.

Asepsis should be general as well as special, from the interior as well as exterior of the animate body, and include the entire organism, or universal in its range and application, as the primal cause of the development of microscopic plants or pathogenic germs, concomitant toxic matter and disease both benign and malignant, is general. The basic material or pabulum vita for the germination, sustenance and growth of these parasitic vegetal organisms, microzymes or germs, and the production of poisonous or infectious matter in the vital economy is the same as for plants of all kinds, with their products, outside of the living body, in the earth, air and elsewhere, viz.: the volatile organic alkali ammonia, for every variety and form of plant, microscopic or macroscopic, within or outside of the vital organism, derives its nourishment and support therefrom. Wherever, therefore, there is a sufficiency of this ammoniacal pabulum for the sustenance of vegetal organisms, they will germinate, grow and develop after their kind, bear fruit, food, poisons and other matters, good, bad or indifferent, inside as well as out of the living animal body; this being, in fact, a constant spontaneous generator of ammonia and its compounds, carbonate, urea, etc., with its adjuncts carbonic acid and water, the essentials of vegetal development and growth everywhere, of every form, kind

and size of herbage, of which the first is the principal and most important, and hence the basis of the science and art of agriculture in all its departments, microscopic as well as macroscopic. There is thus a constant generation of this ammoniacal principle and plant food in the animal economy, which from various causes often passes the normal and becomes superabundant and directly a source of excessive fluidity of blood and disease of various kinds, as well as pabulum for the support, growth and evolution of these parasitic microphytes, toxic ptomaines, poisonous alkaloids and other foreign and morbid matters in the living body. Therefore, if you neutralize, decompose, eliminate or destroy this superabundant ammoniacal material and vegetal food upon which all microscopic as well as macroscopic plants thrive, you prevent the development of or starve these bacteria, microphytic poisons, and other extraneous entities in the vital organism, the same as sterilizing the soil will prevent the evolution of or starve all kinds of plants and products in the earth. This can be more or less readily effected by an antalkaline and acidulous regimen and medication, one of, if not the most powerful counteracting and destructive agents for the purpose being nitrohydrochloric acid. As an antalkaline, germicide, antizymotic, antiseptic, antipyretic and disinfectant this is exceedingly active, whether the superalkalinity, germs, or toxic matters are of a primary or secondary origin, pathogenic factors or results of morbid conditions, here is an agent that meets all the requirements, safe, salutary, agreeable and acceptable to the human stomach and system, or entire animal organism, and of general application, that will prevent and destroy them largely, and correct the consequent disorder they occasion, or underlying superalkaline, ammoniacal, and other abnormalities upon which they are dependent, as well as remove the fevers or other morbid states resulting from and connected therewith. Though the practical fact that this acid medicament, with the acid regimen and medication generally, resolves and cures these so-called germ diseases, is worth more than volumes of hypothetical speculation respecting their origin, yet it is necessary for scientific precision and therapeutic perfection to determine the causative factors of disease positively, speculation being as essential to the advancement of medical as all other branches of science.

In ship, typhus, bilious, remittent or malarial, scarlet, puerperal, and other fevers of a malignant and adynamic type, with variola, rubeola, quinsy or putrid sore throat, diphtheria, erysipelas, carbuncle, and other zymotic, septic, pyæmic, contagious, and putrescent diseases, as well as in the minor scorbutic, necræmic, diphtheroidal, carbunculoid, gangrenous, and inflammatory affections, I have given nitrohydrochloric acid freely, and with so much success that I now habitually prescribe and rely upon it therein as the basic and specific remedy for the underlying constitutional dyscrasia and superalkalinity of blood, as well as general solvent of their sequelæ, though using at the same time as adjuvants all other remedies indicated for special purposes. It neutralizes the ammonæmia and superalkalinity of system, disinfects

and destroys zymotic, septic, contagious or infectious, poisonous and mephitic matter in the mouth, throat, nares, gastro-intestinal canal, liver, lungs, blood, and body, promotes the normal secretions of the salivary glands, stomach, liver, bowels, kidneys, and other organs, depurates and purifies the fluids and solids of the entire system, quenches thirst, reduces fever, resolves abnormal conditions, and restores the healthy equilibrium of hæmatisis, circulation, nutrition, secretion, excretion, or defecation, and life action generally, while at the same time it exerts a stimulant influence upon the brain and nervous system, or gives a "buoyant feeling," as a patient expressed it, invigorating and enlivening the whole being, body and mind.

Nitrohydrochloric acid is thus specifically potent not only in the milder disorder of a non-infectious, scorbutic, and mephitic character, but also in the most malignant and contagious maladies, as typhus, ship, scarlet, puerperal, and like fevers, with smallpox, diphtheria, cynanche maligna or putrid angina, erysipelas, carbuncle, and other zymotic, septic, putrescent, and pernicious diseases. It is, hence, especially indicated in yellow, as in ship and cognate fevers, with other septic, infectious and malignant maladies, and may be given freely therein separately or in conjunction with other mineral, vegetal and animal acids or remedies indicated, and doubtless with as beneficial effects in the former as in the latter. Besides other evidence which might be adduced of its superior value, this was clearly exemplified in seventeen or more cases of ship fever which came into the Philadelphia Hospital under my care at one time. The patients were seriously ill, spotted with the macula of typhus, and so offensive and contagious that it was dangerous to go near them; yet with the free administration of vegetal and mineral acids, nitrohydrochloric acid being the principal, they were soon disinfected, purified, revived, and restored to health, all recovering except one brought in moribund and dying before treatment could be instituted. In septic and toxæmic states, with or without local complications, as in malarial, bilious, remittant and other adynamic fevers, with lithæmia, scurvy and scorbutic conditions generally, benign or malignant, this acid is also a sovereign remedy. It is a specific for all forms of asthenic inflammatory, putrid, and diphtheroidal sore mouth, throat and adjacent parts, as it dissipates the disease rapidly. It is also the basic and specific remedy for diphtheria itself, with acetic, lactic, citric and other acids, pepsin, papoid and other solvents of the fibro-plastic membrane, and the active stimulants and tonics indicated. Hydrogen peroxide is also applicable as a germicide, antiseptic, antizymotic, disinfectant, solvent, oxidizer, vitalizer and tonic in this dire affection, with all other scorbutic, septic, putrescent, infectious and contagious diseases. As an oxidizer, vitalizer, alterative, solvent, depurant, stimulant and tonic, nitrogen monoxide is also specially indicated in diphtheria with asphyxiating and adynamic conditions generally. Nitrohydrochloric acid likewise acts specifically as a potent germicide, antiseptic, antizymotic, antipyretic or febrifuge, antipytic,

disinfectant, depurant, laxative, diuretic, secernant, resolvent and tonic, in all forms and stages of scarlatina, in destroying the germs and infecting principle or contagium, aborting and subduing the fever, preventing and correcting the inflammation, soreness and ulceration of the throat and glands, disease of the kidneys and resulting dropsy, with desquamation of the skin, and in overcoming the toxicity of blood and system, promoting healthy renal, hepatic, and other secretions, and in restoring the normal action of the bowels and state of health generally. In the malignant type of rubeola it is likewise beneficial, but in the more active catarrhal form, with hard, dry cough, the neutral or alkaline salts are most appropriate, either alone or in conjunction as indicated, the variety modifying the treatment in this as in other diseases. Besides these pernicious anginose affections with septicity of blood and local complications, there are other allied maladies, as puerperal peritonitis and fever, erysipelas, and similar morbid states, in which it is very efficacious. The use of nitrohydrochloric acid occasionally according to necessity during pregnancy, is especially indicated as an efficient antalkaline germicide, antiseptic, alterative, or chemico-vital transformer, disinfectant, refrigerant, depurant, secernent, laxative, diuretic and tonic, that will prevent, counteract or resolve the concomitant albuminuria, uræmia, anasarca, and other serious ailments incidental thereto, and avert puerperal eclampsia and fever, with many of the minor ills of gestation, as it will preserve and restore the equilibrium of health, make the patient comfortable, and abort or break up the disposition to puerperal disorder of most kinds.

Long since, in the *Boston Medical and Surgical Journal*, Vol. xvi, Nos. 22 and 23, under the comprehensive title of "Anæmatisis," I treated of various analogous pathological states as similar diathetic conditions, viz.:

Tuberculosis,
Albuminosis,
Adiposis,
Glucosis,
Toxicosis,

believing them all to be dependent upon the same general cause of a deficiency of oxygen, or more precisely, defective oxygenation of the blood and system. Thus, while both albuminuria and glycosuria may be occasional, accidental and limited, and within the physiological and normal line of health from deficient oxygenation, the kidneys acting as a sort of safety-valve to free the vital economy from or allow the excess of unassimilated albumen and sugar to escape with other extraneous matters ordinarily, but which gradually or suddenly increasing beyond the normal limits and passing into the pathological state with the morbid manifestations peculiar thereto in various degrees of intensity, until they finally culminate in pronounced disease of the severest type, with excessive loss of nutrient matter and consequent irritation, congestion inflammation and disorganization of the renal organs, similar to tuberculosis in the lungs. Some time after, about twenty or more years ago, I reviewed the subject in the *Medical and*

Surgical Reporter. This brought me a well-known physician, Dr. H., of a bilio-lymphatic temperament, large and portly, rather past the meridian of life, who said that he had been afflicted with albuminuria for sixteen months, and was greatly despondent thereat, believing that he was incurable, especially as he had been declared by his medical friends, among whom was the late Prof. Gross, to be a hopeless case of Bright's disease, in which he coincided. In accordance with my idea of the general cause of this affection, viz., defective oxygenation, I recommended an abundance of pure air, and to insure this, to live an active out-door life as much as possible, with corresponding hygienic measures, and moreover, advised him to take nitrohydrochloric acid as an antiphlogistic, antitoxic, alterative, resolvent, disinfectant, chemico-organic transformer, oxidizer, vitalizer, diuretic, and tonic, as hydrogen peroxide, nitrogen monoxide, and other sources of oxygen were not so convenient then as now; the albuminuria disappeared, and he recovered. Gross met him some time after and expressed surprise at seeing him yet alive, saying, according to the rules of medicine he ought to have been dead six months before. However, he lived for about *eighteen years* thereafter, even longer than his eminent confrère who had doomed him to an early death so many years before. This case affords an instructive lesson, as it strongly shows the shortsightedness of regarding seemingly remediless diseases as incurable, and doing nothing, or continuing in the old ruts to destruction, instead of working out some new course which may lead to conservation and recovery, especially when it is proven that many chronic, difficult, and so called hopeless cases can often be cured, or at least relieved, and life prolonged and made comfortable by judicious treatment, as the experience of scientific physicians so frequently testify, and the haphazard experiments of empirics occasionally illustrate to the discredit of legitimate medicine. Such cases are often incurable only because we do not know how to treat them properly from the want of correct knowledge on the subject, and not absolutely or inherently irremediable. This is strikingly exemplified in the case in point, for here is an afflicted man, a physician himself, with his own life at stake, and presumably *au fait* with all the best treatment for relief as well as his medical confrères, doomed to death by all as a hopeless case of supposed incurable disease, and yet recovers with very simple treatment. Hence, in all such apparently irremediable cases, it would be better, guided by reason, to strive for relief and cure even under the most adverse circumstances, as I have seen cases the most uncompromising and seemingly hopeless, both acute and chronic, react and recover under appropriate treatment.

But to return to the special subject of study. In lithæmic, uræmic, toxæmic, chylæmic, or ictæroid and bilious affections, defective and atrabile, gallstones, oxaluria, with other forms of lithiasis, and ammoniacal or alkaline urine, aneuria, constipation, hæmorrhoids, hypochondria, pertussis, with analogous blood and nervous disease, both infectious

and benign, dyspepsia, struma, syphilis, chronic rheumatism, and cutaneous affections of various kinds, degrees and parts, dependent upon or connected with superalkalinity and similar toxic states of the blood and system, defective or depraved secretion, etc., nitrohydrochloric acid is likewise very efficacious. In the albuminuric, uræmic, hepatic, cardiac, renal, puerperal, and other varieties of anasarca, or almost all forms and degrees of dropsy, it is very active in counteracting the underlying chemico-vital derangement, restoring the balance of nutrition, with hepatic, renal and general secretion, producing diuresis, defecation, and in correcting the proximate cause of systemic disorder; removing its effects and reestablishing the healthy state of the entire economy. It is inapplicable, however, where a calorifying alterative and diuretic is required, nitrous oxide being far superior as an oxidizer, vitalizer, chemico-organic revolutionizer, resolvent, stimulant, tonic and diuretic, curative not only of dropsy, but of a great variety of diseases and other abnormalities.

In scrofulous and inflammatory states, eczema, herpes zoster, and other cutaneous eruptions, carbuncles, ulcerations, phlegmonous, gangrenous, purulent and suppurative affections generally, nitrohydrochloric acid is highly efficient as a resolvent and curative. In acute inflammation its activity and value was strikingly exhibited in the case of a young lady of a nervo-lymphatic temperament, subject to that intractable ailment, periodontitis and alveolar abscess, whenever her blood becomes superalkaline. Upon one occasion in the afternoon, her teeth became loose and the lips and face rapidly swelled out of all proportions, accompanied with exquisite pain and suffering, threatening a general suppurative inflammation of the gums, integuments of the teeth and face, but by a liberal dose of nitrohydrochloric acid, ten drops of the dilute every hour to saturation, the superalkalinity of system was soon corrected, the disease conquered by the next morning and quickly subsided. Nothing else was given or done, the acid being sufficient, and always relieving her. Whenever the laxative effect of the acid is not prompt enough, a moderate purgative dose of citrate of magnesia may be added. Moreover, by correcting the general dyscrasia upon which they are dependent, and acting as antalkaline, germicide, antiseptic, resolvent, alterative, tonic, etc., with soothing or appropriate local treatment, it also counteracts and discusses that malignant disorder, carbuncle, with its phlegmonous and gangrenous analogues. Further, in that still more formidable general disease, variola, with its serious local lesions, and the extreme derangement of toxæmia, pyæmia, fever, inflammation, suppuration, contagion and infection, nitrohydrochloric acid seems to destroy the small-pox contagium, abort and overcome the fever, subdue the inflammation, prevent, shrivel and dry up the pustules, conquer the disease *aborigo*, and counteract and resolve the malady altogether, hence is especially adapted to the prophylactic and curative treatment of this dire pestilence, with all similar pathological conditions. Other acids are also useful for the same purpose in varying degree.

While either one of its constituents—nitric or hydrochloric acid, of this compound nitrohydrochloric acid, may have similar effects to a certain extent, they cannot separately fully exert the same influence as when combined, either in character, efficiency or power. Other compatible acids mineral, vegetable, and animal, with acidulous fluids and fruits, as sour buttermilk, lemons, grapes, and edible tart things generally, may be used in conjunction therewith according to special indications, but of the general subject of acid medication and regimen I have treated somewhat fully in my work on the "Basic Pathology and Specific Treatment of Diphtheria, Typhoid, Septic, and Allied Diseases." In various complications of inflammatory, fibrous and plastic exudates, the neutral or alkaline salts are useful adjuvants as solvents and discutients, as sodium and potassium chlorate, etc., while the acid is the main and basic remedy, with the more active stimulants and tonics.

The constitutional effects of nitrohydrochloric acid are produced by its external application in baths, ablutions, etc., as it is absorbed, and is thus applied for the relief of various hepatic and other affections too well known to require further mention here. In cases of poisoned wounds and bites of irritated and rabid animals, I have been in the habit for many years of giving with the best results, nitrohydrochloric acid internally to counteract and destroy any toxic matter absorbed, as well as to apply it externally and chlorine water or chlorinated soda with or without carbolic acid, to most effectually nullify and eradicate any venom which might be deposited or taken in, continuing them as freely and long as the patient desired to satisfy and quiet the mind with the assurance that the most effective measures internally and externally, had been employed for the destruction of infecting virus and the preservation of health and life. Hydrarg. bichlorid. might be added both internally and externally, if thought necessary, with other germicidal, antitoxic, alteratives, and disinfectants.

Nitrohydrochloric acid thus affords a simple, safe, convenient, agreeable, expeditious, efficient and reliable means of disinfecting the living body of persons thoroughly, under the most adverse as well as favorable circumstances, as on ships at sea, at quarantine, in hospitals, and in private life, at any time with the least trouble and expense. Although caustic and escharotic when concentrated it is innocuous when diluted, except when continued too long or freely it may produce ptyalism and sore gums, hence should be occasionally intermitted in chronic diseases whenever anything of the kind threatens or occurs. Otherwise it is agreeable to the stomach and system generally, and pleasant to take properly diluted, in from two to four drops of the strong or ten to twenty drops of the dilute acid every hour, two, or three hours, more or less frequently according to necessity. In water, lemonade, infusion of barley, or other mild acidulous and bland liquid alone or sweetened to taste, it is an acceptable, antalkaline, germicidal, antiseptic, antitoxic, disinfectant, refreshing, nutrient, restorative, and tonic beverage, very grateful and invigorating to those suffering with scorbutic, malarious, hepatic, contagious, septic, febrile, infectious,

mephitic, and other affections. As a nutritive diluent to promote its efficiency and increase the ingestion of acid, I usually give it with the juice of one lemon, in a goblet of sweetened water or other suitable menstruum, as freely as required and the stomach will bear, or if the quantity of fluid is objectionable, lessen the water and lime juice proportionately. To protect the teeth, it should be taken through a glass, clay, straw, or other non-corrosive tube, and the mouth rinsed with lime, or other alkaline and plain water, though in edentulous children and adults it may be directly taken without such precautions, its localized action on the mouth being often desirable, always avoiding of course, its contact with metallic spoons, or other neutralizing and contaminating substances.

In urgent and extreme cases, nitrohydrochloric acid should be pushed vigorously or given freely *ad saturandum*, to neutralize the superalkalinity of the blood and system, toxæmia, septicæmia, pyæmia, uræmia, and other pathological states, destroy the contagious and infectious principles, or germs, and resolve the concomitant abnormalities as soon as possible, except in the extreme of Bright's disease, scarlatina, etc., wherein the kidneys are greatly disabled, when more discretion is necessary, so as not to throw too much work on them suddenly or overpower them with the materials of uriniferous elimination, though it tends to resolve the renal disorder, restore the normal constitution, secretion and excretion of the urine, and excite diuresis, but in typhus, ship, yellow, bilious, malarial, and other fevers, variola, with the exanthemata, and other general and local diseases of a malignant, infectious or contagious, and scorbutic character, it may be given somewhat freely, unless the stomach is intolerant, when smaller quantities at shorter or longer intervals, by frequent sipping or sucking through a tube as it can be borne, according to indications or necessity is more appropriate.

In consequence of the cheapness and general efficiency of nitrohydrochloric acid it is peculiarly appropriate as a sanative and remedial agent for persons in ships, quarantine, hospitals, and for people of limited means, as well as the richer class. It is easily prepared by mixing gradually the two component acids—nitric and hydrochloric, in the proportion of three parts of the former to five of the latter, or of one to two, or equal parts of these acids, and after effervescence ceases to put and keep in a dark bottle in a cool, dark place, as it is apt to deteriorate from warmth, light, and time, hence it should be made in limited quantities, according to requirements. When fresh it is of a golden yellow or orange color, and should not be kept long in solution sweetened with sugar or syrup as it is apt to form oxalic acid therewith, a deadly poison, and of course, a dangerous mixture. Therefore, to insure purity, avoid accidents, and otherwise, it would be to the interests of physicians to dispense it themselves in small quantities at a time as needed.

I have thus presented a very general outline of the medical properties and applications of nitrohydrochloric acid believing it from my experience, to be of inestimable value as a sanative and medicinal agent,

applicable to the prevention and cure of a wide range of abnormal conditions, both benign and malignant, local and constitutional, and affording a safe, convenient, certain and speedy means of resolving many serious diseases that now receive very complex, expensive, unsuccessful, and unsatisfactory treatment. Therefore, I hope that this superexcellent medicament will be given a thorough trial and be put to the severest practical test by everyone having the opportunity to use it, so that the facts relating thereto may be more positively determined, for it is only by a multiplicity of observations and the experience of many recorded that the truth can be most fully established.

116 N. Fifteenth St., November, 1887.

THE MORBID ANATOMY OF PERI-CÆCAL INFLAMMATION.

*Read before the Philadelphia County Medical Society,
December, 14, 1887.*

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OF PHILADELPHIA.

Much confusion appears to exist in regard to the nomenclature of the inflammatory affections of the region we are about to consider. It may, therefore, be well to state the meaning of the various terms which will be used in this discussion. By typhlitis we shall understand inflammation of the cæcum; by peri-typhlitis, inflammation of the peritoneum covering the cæcum; by para-typhlitis, inflammation of the connective tissue behind the cæcum. The term typhlitis is often used to include inflammation both of the cæcum and of the appendix. We shall, as suggested by Dr. Fitz, use the term appendicitis for inflammation of the appendix, appendicular peritonitis for typhlitis of the appendix and its serous covering, and para-typhlitis for inflammation of the connective tissue around the appendix, or, if you please, peri-cæcal.

It is well to know the relative importance of the inflammatory affections in this portion of the intestinal tract. Typhlitis has been considered by systematic writers to be a frequent affection, and yet it is difficult for pathologists to find records of autopsies in which this condition has been found. It is true that some writers, especially the Germans, have described cases, particularly of stercoral typhlitis, in which inflammation and ulceration of the mucous membrane of the cæcum, by pressure from fecal impaction, was present. Most of us will, however, agree with Fagge that typhlitis is a good general expression used for all varieties of inflammation occurring in the right iliac fossa, but that in the majority of cases the correct term should be appendicitis. Fagge relates a case of Williams' in which the patient had all the symptoms of peri-typhlitis with a tumor in the right iliac fossa. He was recovering from this when an acute affection of the pleura caused his death, and at the post-mortem there was found appendicitis, with ulceration and perforation, and not typhlitis. Dr. Wilkes agrees with Fagge in this view, and they consider that the difference in degree of the inflamma-