

continued for a couple of days. A fresh supply of pure apomorphine was tried upon two cats; in one of them the same train of symptoms was observed somewhat less. No vomiting in either case. Gee found that by commencing with a large dose these symptoms could invariably be produced. In one of his cases, in all $7\frac{1}{2}$ grains injected, the animal had epileptiform convulsions, and was found dead the next morning.

Post-mortem appearances have been so slight as to afford little or no clue to the *modus operandi* of the poison. In one of Quehl's cases a little hypercemia was found in the pons Varolii and adjoining parts of the crura cerebri, the remaining organs being perfectly healthy.

Classified the symptoms:

Brain and Cord.—Slight deafness, giddiness, singing in ears, great excitement, epileptiform convulsions brought on by touching. Tetanic condition, running round and round room, scaling walls, turning somersaults. Partial paralysis of the hinder extremities, clawing, natatory movements. Diminution of reflex irritability, continuous workings of stomach, depression. Uncomfortable sensation in the head.

Eye.—Pupils dilated. No action when applied locally in powder.

Ears.—Dimness of hearing.

Circulation.—Pulse accelerated, or accelerated and then retarded. Syncope, lessening of blood pressure, fall of bodily temperature.

Respiration.—Accelerated, labored.

Digestion.—Qualmishness, nausea, vomiting, retching, convulsive movements of stomach. Præcordial pain, salivation. Diarrhœa (in cats).

Urinary.—Urination.

It has already proved a very serviceable emetic in cases of poisoning, to which, from its portability and readiness of administration, it is peculiarly applicable. Dr. Loeb injected $\frac{1}{8}$ grain in a man who had swallowed $2\frac{1}{2}$ oz. of bitter almond oil. In the course of a few minutes nearly the whole of it returned, and the patient speedily recovered. Gee used it with perfect success to produce vomiting in a man who had taken a large quantity of raw spirits.

Its advantages over the ordinary emetics are, first, the rapidity of its administration; secondly, that it can be given subcutaneously when the patient cannot swallow, or when the stomach-pump tube cannot be introduced; third, the absence of unpleasant after-effects, or of any irritation in the skin when given subcutaneously.

Apocodeine.—When codeine is submitted to the same treatment as morphine a homologous substance to apomorphine is produced, differing from codeine by the absence of one atom of water.* This body has been examined by Dr. Wickham Legg, of St. Bartholomew's Hospital.† (Dr. J. G. Blackley, B. J. H., 1873, p. 497.)

BERBERIDEÆ.

Podophyllum peltatum. Partial provings, by T. S. Hoyne. (Trans. A. L., 1872, p. 499.) Comp. R. L., p. 71; III., p. 33.
— A glance at the effects. By W. S. Searle, July, 1873. Our knowledge of this drug is comparatively recent‡ and very incomplete. Its provings are scanty, and the recorded cases of poisoning by it few. Sufficient, however, is known to render it a remedy of no mean value.

Upon the sensorium no marked primary action is discernible. As secondary effects, however, we find depression of spirits with fatalistic ideas, and vertigo with a tendency to fall forward. Secondly also, it produces other decided disturbances in the head. The prover complains of dull, heavy, pressing pains, which are confined to the forehead, temples and vertex, and are relieved by external pressure.

*The relation of apomorphine and apocodeine to the alkaloids from which they are derived may be expressed as follows:

Morphine . . .	$C_{17}H_{19}NO_3-H_2O=$
Apomorphine . . .	$C_{17}H_{17}NO_2$
Codeine . . .	$C_{18}H_{21}NO_3-H_2O=$
Apocodeine . . .	$C_{18}H_{19}NO_2$

† Transactions of the Clinical Society, vol. ii.

‡ Dr. J. Jeanes and W. Williamson, after they had proved it and used as a polychrest for seven years, published it 1846, in the Transactions of the American Institute of Homœopathy, page 204 to 218; and in 1849, a German translation appeared in Buchner and Nusser's Zeitung. Nothing of much importance has been added since.—C. Hg.

These pains generally occur in the morning on waking, and grow less during the forenoon. (The diarrhœa has also this morning aggravation.) As accompaniments of the pain, we observe drawing sensations in the eyes, and at times, soreness at the seat of distress. It is noticeable that the headache may alternate with the diarrhœa which the drug also produces.

In the eyes some hyperæmia of the conjunctiva is visible with drawing, smarting, aching, and heavy sensations. These symptoms occur equally whether the prover has ingested the drug or only been exposed to its dust.

The tongue exhibits a moist, white coating, and salivation is copious. The breath is offensive even to the prover himself, and a foul putrid taste disgusts him. The pharynx is at first full of mucus, but afterward becomes dry. Then deglutition becomes painful, especially when swallowing liquids, and soreness, appearing first upon the right side, extends to the left, and upwards through the eustachian tubes.

The appetite is diminished and soon satisfied, while a strong desire for acids is developed. What little food is taken is not well digested, for burning, acid eructations soon appear and after a short time, nausea sets in, rapidly increasing to vomitings. Some of the food seems to undergo putrefactive fermentation for the ejecta have, at times, a putrid taste and odor. The vomiting is very protracted and often very severe, being accompanied by agonizing epigastric pain. Even after the stomach has been thoroughly emptied, the inverted peristaltic action continues, and extends also to the duodenum, so that bile, mingled perhaps with blood, is ejected.

Sometimes colic now puts in an appearance, but not seldom the disturbances in the abdomen are unaccompanied by pain. When colic does occur it is aggravated by lying upon the back, and relieved by bending forward. The intestines become distended with gas, and a profuse diarrhœa sets in.

Before the stool there is often a sensation of heat in the abdomen, while after it comes a feeling of great emptiness. Both colic and diarrhœa are worse in the morning. In the region of the liver, fulness, soreness and stitching pains are

developed, and similar feelings are complained of in the splenic territory.

In the morning aggravation of the bowel symptoms, *Podophyllum* resembles *Aloes* and *Sulphur*, but may easily be differentiated from these. The stool of *Aloes* is a windy spurt of watery or slimy, yellow fæcal matter, the desire for which can hardly for an instant be controlled from a seeming if not real weakness of the internal sphincter. *Sulphur* demands equal haste from tenesmus. It has a brown stool, not especially flatulent, and neither so scanty as that of *Aloes*, nor so profuse as that of *Podophyllum*. *Podophyllum* gets its victim up early, but not in so great haste as the others, (probably because the internal sphincter alone is affected) and has a very profuse, yellow or greenish stool—so profuse indeed, that one wonders whence so much can come. It often contains undigested food, and is very offensive to the smell, having sometimes the odor of carrion.

Not seldom it is preceded by prolapse of the rectum. Accompanying it are excessive prostration, simulating even the collapse of cholera; constant, heavy, dragging pain in the back which increases during and after stool; flashes of heat running up the back, and sometimes severe tenesmus. At a later stage mucous and muco-gelatinous stools occur which may be streaked with blood. The whole alimentary canal becomes so irritable that the ingestion of food or drink at once renews the desire for stool.

As secondary and reverse effects, the stool becomes dry and hard; is voided with difficulty, and is covered with yellow mucus. This condition alternates with returns of the diarrhœa.

Similarly to the bowels the kidneys are affected. First comes enuresis with, at times, involuntary nocturnal discharge, and then follows diminished secretion. A sediment occurs but its nature has not been determined.

Little is known of its effects upon the male organs. An eclectic druggist, however, states that those engaged in preparing the resinoid suffer from a pustular eruption upon the scrotum. Topically applied it produces similar effects upon other portions of the skin.

Upon the female organs its influence varies with the time of its administration. Given at or near the time of men-

struation, it hastens and increases the flow of blood as well as of vaginal mucus. But, if sufficient interval occurs between the dose and the menstrual nixus for the primary effect of the drug to disappear, the secondary and reverse symptoms obtain, viz., amenorrhœa and dryness of the vagina. It is noticeable that it produces prolapse of the vagina as well as of the anus.

Upon the respiratory organs its influence is slight and purely reflex. This is also true of the few symptoms which are developed in the extremities.

It is susceptible of physiological interpretation. It attacks the involuntary muscles, particularly those of the blood-vessels which supply the alimentary canal with its adjacent and contributing organs. In this way it affects the kidneys, uterus and the heart itself. Of the involuntary sphincters, moreover, it causes a paresis.

Beginning with the mouth and salivary glands, the result of such a paresis of the blood-vessels would cause stasis, passive congestion. The capillaries are relaxed and over-distended; their lattice-like tissue opens, and out pour floods of serum and protoplasmic masses: epithelial activity is stimulated, and an imperfect, half-elaborated and abundant secretion is the result. The same conditions produce like effects in the mucous membrane and glands of the stomach, and hence a similarly inefficient gastric juice is deluded upon the food. This, together with the directly irritant effect of the drug upon the surface of the stomach, induces nausea and vomiting. The same results are seen in the intestinal canal. It pours forth a superabundant secretion: the decomposition of the undigested food, and perhaps also the irritated mucous membrane itself furnish the gas which distends the intestine and pains its irritated nerves; and hence the colic and the flood of fecal discharge.

Upon the liver, spleen, kidneys and uterus its effect is the same in kind, and therefore each discharges profusely its half-elaborated production.

Upon the muscular fibres of the heart the action of the drug is particularly powerful. The beat becomes feeble; the pulse weak—then scarcely perceptible; the surface of the body is bathed in a cold and clammy sweat; and thus death by collapse steals on.

The involuntary sphincters are enfeebled, so that the rectum and vagina prolapse and the sphincter vesicæ fails to perform its whole duty.

All the glands above mentioned have their parenchyma distended, and hence come the sensations of weight, dragging, fulness, soreness, etc., in them all.

Nothing but secondary symptoms remain for which to account. The heavy, dull frontal headache with which the prover awakes from a stupid sleep is easily explicable. The secretory organs, which have lately been so active, have now reacted against the influence of the drug: their capillaries have contracted and secretion has fallen below the normal standard. Such a condition produces just these kind of head symptoms. In confirmation, we may refer to the fact that, after the diarrhœa has ceased and constipation begun, occasional returns of the former occur, and with the recurrence of the loose stools, the headache disappears.

We have only a few outlines of the secondary picture; but these, together with the primary picture and our clinical records, complete the drawing. Here also *Podophyllum* is often valuable.

Beginning with the head, and coming to the mouth and throat, we find a dry, yellowish tongue; a foul, bitter taste, and thirst with very little appetite. The pharynx is dry and deglutition painful. The stomach is irritable, and the gastric juice small in quantity. Owing to the diminished secretion of bile (or perhaps rather to its retention and reabsorption), there is more or less jaundice, and the stools become pale, dry and hard. The urine is scanty, charged with sediment, and colored yellow by the biliary acids. There is also, in women, amenorrhœa, with its train of consequences.

Crowning all, and growing out of the irritable condition of the heart itself, together with the stimulus reflected upon it from other excited organs, comes general fever.

To this congeries of symptoms *Podophyllum* is secondarily homœopathic. What does this practically mean? I confess I do not know. Hale would tell you it means that, to be curative in these conditions, it must be administered in small doses. But some facts are decidedly against Hale's law of dose. For instance, Dunham, in his lecture on

Graphites says, he has been equally successful in the treatment of the diarrhoea and constipation which are cognate to this drug with the two hundredth attenuation.

Multitudes of similar facts can be adduced from our clinical records, and we must therefore remit the whole matter to those who feel competent to deal with this vexed question of the dose.

To what diseases is it applicable?

First, and most accurately, to bilious fever. With this as a type we shall not go far wrong in its administration. It has been praised for its curative power in typhoid forms of fever, in the genuine zymotic fevers it may be given as an intercurrent in persons of a bilious temperament.

In intermittent fever it may, at times, be useful in a similar way, but it is better adapted to the remittent type which is generally bilious *au fond*.

In the treatment of gall stones its use is, of course, purely toxic.

Is there any warrant in the pathogenesis for supposing that it is more than a mere function remedy? If my physiological reading of it be correct, I think there is. In such conditions of vascular stasis as have been described, the white blood corpuscles, and other more minute particles of protoplasm pass through the meshes or stomata of the capillaries, and wander by their inherent power of locomotion, into the various neighboring tissues. Here they grow and multiply, and by their transformations bring about the serious of phenomena which we call inflammation. Hence, we may prophecy that it will be useful in gastritis, hepatitis, enteritis, dysentery, and perhaps even in nephritis and metritis. However, should it ever be appropriate in such forms of disease, we should expect to find in the history of each case an incipient stage when the symptoms corresponded to those existing in the proving.

I have thus endeavored to characterize Podophyllum, and if it has afforded you as much information as the study of the drug has me, I am fully repaid for my trouble.

— *Ulceration of Cornea and Eruption in Skin, from the root while being ground.* A man engaged in powdering it got a large central superficial ulceration of the cornea from the dust, attended with intense general conjunctival congestion. It

is known to the trade to produce "inflamed eyes," and an eruption of "scabs" on the arms and legs of the men who attend the mill in which the root is ground. (Mr. Hutchinson, B. J. H., 1873, p. 189.)

Podophyllin. Practical remarks. Coe has proved that lactic acid is an effectual antidote to the effects of it. Fifteen grains have been given and immediately afterwards a draught of sour milk, and the effect of it has been *nil*. Sugar antidotes it somewhat; common salt increases its action; acetic acid does not affect it. In *gout* it is useful after acute symptoms have subsided, or in cases where the attack is preceded by premonitory symptoms it is indicated at once. It will ward off an impending attack of gout. It had good effects in jaundice when it had returned again and again after China and Mercurius. The following inferences are drawn from the facts related:

First. That it is a very active and penetrating medicine, resembling calomel in its specific action on the liver and glandular system, but beyond that the similarity ceases.

Second. That its direct sphere of action is the whole portal system, and indirectly all other systems connected with that either by nervous or vascular ties.

Third. That while the liver and gall bladder are directly acted upon by this medicine specifically, and led by it to discharge their contents, great relief is given to the lungs and the brain, when oppression of these vital organs is connected with inactive and irregular action of the liver.

Fourth. That torpidity of liver rather than vascular congestion is the chief sphere of it; in other words, a non-secretory state, or a state of non-expulsion of the secretion of bile, is the indication for it, and this state is indicated by sallow complexion, furred tongue and constipation.

Fifth. That the curative dose in such cases must be brought near to the physiological, viz., the 10th, 5th or 4th of a grain given once, or at the utmost twice, a day, and immediately arrested if diarrhoea appears.

Sixth. That the middle dilutions ought to be prescribed for the other diseases in which it is indicated—diarrhoea, dysentery, prolapsus ani or uteri, etc.

Seventh. That the diseases in which it has been found most serviceable by the writer are gout, erysipelas, spas-

modic and bronchial asthma, and chronic bronchitis, and in all these diseases only as an intercurrent. (The writer has not had any personal experience of its benefit in syphilis and goitre, and cannot therefore affirm or deny its power in these diseases.)

Eighth. That it is not specially indicated in hepatitis, nor in any of the early stages of acute disease, save in the diarrhoea and dysentery, for which it is homœopathic.

Ninth. That it ought never to be given where a simple aperient is required, as in cases of undigested food, lodgements in the cæcum and colon, etc. Its use should be restricted to liver constipation.

Lastly, while a specific has been defined by Dr. Drysdale as a remedy in which the whole physiological is absorbed into its therapeutical action, there are some exceptions, and this I believe to be one of those where the boundary line between the physiological and therapeutic action is not easily defined, and where we are most certain of the therapeutic effects when we touch the physiological sphere. (Dr. John Moore, B. J. H., 1873, p. 326.)

RANUNCULINEÆ.

Pulsatilla, a practical study of, by Dr. Karl Hencke. (A. H. Z., v. 86, p. 27.) Comp. R. I., p. 72; II., p. 28; III., p. 33.

Hydrastis. Vertex headache in paroxysms every other day, commencing about 11 A. M., with excessive nausea, retching and anguish. Quotation. See Hills on Amm. carb. (W. J. H., Aug., 1873.) Comp. R. III., p. 33.

Aconite. Provings by Dr. Jousset and Dr. Jablunsky. (Bulletin de la Soc. M. H. de France, 1872; J. Pr., 1873, p. 136.) Comp. R. I., p. 74; II., p. 29; III., p. 34.)

— A study, with clinical observations. (J. H. Nankivell, B. J. H., 1873, pp. 211, 419.)

Actæa racemosa. Partial provings, by T. Backmeister. (Trans. A. L., 1872, p. 491.) Rheumatism in fleshy portion of left arm, pain coming on in afternoon, excruciating, getting worse and worse towards night. Gave five drops. Patient immediately complained of rush of blood to head; saw black spots before eyes; thought she was going to die; pulse became intermittent, etc. In twenty minutes she

got better, and she seemed under the action of this remedy. Always gives me dull frontal pain.

In a bad case of typhoid fever gave Cimic., pretty strong dose, in the evening, about 9 o'clock. The patient soon after went into a comatose state; jaw sunk, etc. Was called in the night, and found her comatose, apparently dying; stimulated her with wine, and she soon opened her eyes; made a speedy recovery, receiving but little medicine afterwards. (Dr. Ward, H. M., April, 1873, p. 447.) Comp. R. I., p. 73; II., p. 29; III., p. 34; IV., p. 33.

Macrotin. A proving, by C. P. Seip. (Trans. H. M. S., Penna., 1873.)

EUPHORBIACEÆ.

Ricinus communis. Poisoning. An interesting case is reported at length of poisoning by the bean of Ricinus com. (M. I., v. 10, p. 222; Bulletin de la Soc. M. H. de France, Nov., 1871.)

— As a Galactic in *Agalactea*, relieved in three cases. (J. H. Woodbury, N. E. M. G., Nov. 1873, p. 522.) Comp. R. IV., p. 33.

XANTHOXYLINEÆ.

Xanthoxylum fraxineum. Proving by E. M. Hale. (A. H. O., Jan., 1873, p. 11.)

TERNSTROENIACEÆ.

Thea chinensis. Green Tea. Determination of blood to head, with sensation of fulness, especially in forehead over eyes, flashing, fiery lines darting from the eyes and radiating outwards from the axis of vision; sensation at root of nose as if epistaxis would occur; vertex-heat and vertex-vertigo with sensation of pulsation at vertex. (H. C. M., N. A. J. H., v. 22, p. 87.) Comp. R., II., p. 32.

Drugs from Animals.

From the lower type Radiates, nothing new has appeared, but we have a right soon to expect a proving of the nettling poison

of the jelly fish. On comparing the notice in Record I., p. 77, of Hunnius and other physicians in Russia, and Record IV., p. 34, a case of poisoning observed in France, translated by J. G. Houard, we observe that like the snake poison it can be exposed to the heat of boiling water without losing the specific effect it has on the action of kidneys and on the mammæ, similar to the *urtica urens* and formic acid.

ARTICULATES; OR INSECTS.

Apis mellifica. Accidental Proving. In the summer of 1872, W. S., æt. 50, nervo-bilious temperament, general health somewhat feeble, while near his bee-hive was stung by a bee on the back of his hands. He had several times before been stung without experiencing much inconvenience. On this occasion he was seized in a few minutes with nausea and vertigo, and a general sense of distress and prostration accompanied with mental anxiety. When seen a half hour later he was found lying on his back with puffed and slightly flushed face and ears, and flushed neck, breathing with some difficulty; a sense of fulness and choking as if filling up in the throat, oppression over the chest and epigastrium, troublesome itching or stinging of the face, ears and throat, and also of the hands, feet, wrists and ankles. There was little or no itching on any other portion of his body. There was marked redness of the hands and wrists, also of the feet and ankles. The pulse was quick and full, not hard. Upon examining one of the punctures it was observed that the bee had struck directly upon a prominent vein on the dorsum of one of the hands. There was no swelling at this point. The precise order of development of all the symptoms could not be accurately ascertained. He suffered in this way about two hours and then the symptoms gradually subsided. (H. Ring, O. M. and S. R., v. 7, No. 5; Proc. H. M. S., O., 1873, p. 60.)

A man stung by twenty-seven bees in the head. Head did not swell at all, but shortly was attacked by sharp crampy pains in the stomach and abdomen, followed by vomiting and diarrhoea which lasted at intervals for about two hours. In a few hours symptoms passed away, followed by great exhaustion. He was entirely well next day. (E. W. South, A. J. H. M. M., v. 6, p. 181.)

Farmer stung by bees in nine places became faint and began to vomit, which was repeated nine times; his bowels also were relaxed. (J. Kitchen, A. J. H. M. M., v. 6, p. 249.)

— Will often do excellent service in seasons when the flies sting with unusual vigor. It acts well in such times in chills and fever. (Eggert, N. A. J. H., v. 22, p. 255.) Comp. R. I., p. 79; II., p. 33; III., p. 36; IV., p. 34.

Arachnides, Scorpion-poisoning. Two species of scorpions (*Alicrans*) red and black are frequently found in Mexico; the red being the most poisonous of the two. Bites and consequent death of children especially are very numerous, the deaths amounting to several thousand per year. The symptoms of the bite, which are immediate, are: numbness throughout the whole body, commencing at the point bitten and sometimes extending through the whole body in fifteen minutes; choking, seemingly a spasm of the glottis, accompanied by tetanus; there is a slight flush of the face, brightness of the eye, with increased heat of the body, later coldness of the extremities; death ensues often very quickly from strangulation.

The tincture of aconite-root in water has been found to relieve the symptoms and antidote the poison very speedily. (G. M. Pease, M. I., v. 10, p. 665.)

VERTEBRATES.

Molluscs vacat, First Step.

Fishes, Second Step.

Oleum jecoris, Cod-liver oil. Proving, by C. N. (M. A., p. 83.)

Effects when taken in dilutions (prepared by mixing the pure Ol. jec. aselli with alcohol, and letting it remain on it for a long time):

Giddiness in the head.

Dull aching pain in the forehead.

Steady aching sensation from left to right temple.

Everything turns black.

Swelling of the thyroid gland.

Weakness in breast; tickling in the throat.

Soreness of the chest.

Quick, sharp stitch in the left side.