it has no influence on litmus-paper. It is a triatomic phenol, $C_6H_3(OH)_3$, and is therefore, properly speaking, not an acid at all. One of its characteristic properties is its strong affinity for oxygen, in consequence of which it instantly undergoes change by contact with chlorine, iodine, bromine, and the acids which readily yield oxygen. Through the same property it rapidly reduces some of the metallic oxides; and its use in photography is based on this effect exercised on the salts of silver. Though unalterable in the air when quite dry, it is rapidly changed in solution by the absorption of oxygen, so that it may be used for ascertaining the proportion of this gas in a mixture of gases. M. J. Personne, believing that phosphorus acts as a poison on account of its affinity for oxygen, was led to make experiments with pyrogallic acid. (*Comptes-Rendus*, Oct. 1869.) He found that in doses of 30 grains it produced in dogs ymptoms and post-mortem lesions similar to those caused by phosphorus.

QUEBRACHO BARK. *Quebracho Blanco.* The bark of the apocynaceous tree of Chili, *Aspidosperma quebracho*, is said to appear in European commerce in two varieties, the one coming from the province of Salta, of a lighter, clearer color, the other from the province of Cordoba, much darker. As we have seen the bark, it occurs in large pieces, half to three-quarters of an inch in thickness, covered on the outside with a very thick and rough corky layer, which is of a grayish brown color, and deeply divided by furrows and excavations. The inner side of the bark is grayish or yellowish, smooth or somewhat fibrous, often with small black spots. Upon section, the outer layer of the bark is red, with small yellowish spots; the inner, light grayish, and minutely marked by the ends of the bark fibres. The taste of the bark is intensely bitter. (For microscopical description of the bark, see *A. J. P.*, 1881, p. 238.) The wood of the tree is not met with in commerce, but is said to be very hard, distinctly marked with rings of growth, and of a bright chocolate-brown color, except the very young wood, which is yellowish or reddish. According to the experiments of Heise and Penzoldt, the wood is inactive, and contains no alkaloids; it is used for tanning purposes in South America.

In 1878, Fraude (*Ber. Deuts. Chem. Ges.*, 1878, p. 2189; 1879, p. 1560) discovered in the quebracho blanco an alkaloid, *aspidospermine*, $C_{22}H_{30}N_2O_2$; but a series of experiments have led Dr. F. Penzoldt to the conclusion that it does not represent the whole medical activity of the bark, and O. Hesse is said to have found four other alkaloids, one of which, *quebrachine* ($C_{21}H_{26}N_2O_3$), he has described. (*Ber. Deuts. Chem. Ges.*, xiii. 2308.) *Aspidospermine* is soluble in about 6000 parts of water at 15° C. (59° F.), and the solution has a decidedly bitter taste, soluble in about 48 parts of absolute alcohol, in 106 parts of ether, insoluble in glycerin; it dissolves readily in fats and fixed oils, cod-liver oil dissolving a larger proportion than it does of quinine. Its *sulphate* and *hydrochlorate* are very soluble. The citrate is crystallizable, and very soluble. The yield of aspidospermine is very small, 0·33 per cent. of the bark. Quebracho bark is said to be used as an antiperiodic in Chili, and has recently attracted attention and been highly lauded as a remedy in cardiac and asthmatic dyspnœa. (*Die Wirkungen Quebrachodrogin*, Dr. F. Penzoldt, Erlangen, 1881.) The alcoholic extract has been given in asthma, uræmic dyspnœa, fatty heart, etc., in doses of 5 grains, with asserted surprising advantage. (See *Berlin. Klin. Wochens.*, xvi., 1879; *Prag. Med. Wochenschrift*, 1879, iv.) In the lower animals large doses of the bark produce motor palsy, with dyspnœa, and finally death, apparently from asphyxia. The breathing early becomes slower in rate, but deeper; the blood-pressure is not until late much affected. Dr. F. Penzoldt (*loc. cit.*) believes that the relief of dyspnœa obtained clinically by the use of the drug is caused by its increasing the power of the blood to take oxygen, and the dyspnœa caused by poisonous doses he attributes to its preventing the blood yielding the oxygen to the tissues, but he does not clearly prove his theory.

*Quebracho colorado* and *Quebracho Gum* are respectively the wood and the dried juice or watery extract of the *Loxopterygium Lorentzii*, a large tree growing in the Argentine Republic. The wood is very heavy, hard, and of a reddish brown color. (See *A. J. P.*, 1879, p. 152; also, Penzoldt, *loc. cit.*; *P. J. Tr.*, xii.) Quebracho colorado has been used as a substitute for the true quebracho, but is essentially different from it, and probably is a simple astringent and gastro-intestinal stimulant, although Dr. Penzoldt claims that it is similar in its action, but much weaker than quebracho blanco. A *tincture of quebracho* has been made: 1 part to 5 parts of alcohol sp. gr. ·923. *Wine of quebracho*: 1 part quebracho bark, 2 parts alcohol sp. gr. ·923, white wine 16 parts.

QUINOA. The *Chenopodium quinoa* is largely cultivated in Southern Peru and Southern Chili, often above the height at which barley and rye will ripen, for the sake of its seeds. These are about the size of white mustard-seeds, but flatter, and afford a flour resembling somewhat oat-meal. The starch grains are very small, and constitute about 40 per cent. of the grain, which also contains 5 per cent. of sugar, 7½ of casein, and 11 of albumen and other protein compounds. One variety, the red quinoa, contains a bitter principle in the seed-husks, and is used to some extent as an emetic and antiperiodic. (*A. J. P.*, 1872, p. 559.)

RANUNCULUS. *Crowfoot.* Most of the plants belonging to the genus Ranunculus

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have similar acrid properties, and, from their close resemblance, are confounded under the common name of *buttercup*. *R. bulbosus* was formerly on the secondary list of the U. S. Pharmacopœia; but *R. sceleratus* had attracted more attention in Europe, and *R. acris* and *R. Flammula* were recognized by the Dublin College.

In May and June our pastures are everywhere adorned with the rich yellow flowers of *R. bulbosus*, which is distinguished by the bulb-like base of the stem, and the fact that the lateral divisions of its leaves are sessile, whilst the terminal are stalked and three-parted, all being wedge-shaped. Somewhat later *R. acris* and *R. repens* begin to bloom, and a succession of similar flowers is maintained till September. The two latter species prefer a moister ground, and are found most abundantly in meadows. *R. sceleratus* frequents ponds and ditches. In all these species, the whole plant is pervaded by a volatile acrid principle, which is dissipated by drying or by heat, and may be separated by distillation. Dr. Bigelow found that water distilled from the fresh plant had an acrid taste, and produced when swallowed a burning sensation in the stomach; and that it retained these properties for a long time if kept in closely-stopped bottles. Dr. Clarus discovered, in *R. sceleratus*, besides the acrid volatile oil, a nearly inert resin, and a narcotic principle called *anemonin* or anemone camphor, $C_{15}H_{12}O_6$. The volatile oil is soluble in ether, and is decomposed, on standing, into a white amorphous substance having acid properties (*anemonic acid*), $C_{15}H_{14}O_7$, and into anemonin. Other species of Ranunculus probably have the same constituents. (*B. and F. Med.-Chir. Rev.*, 1859, p. 181.) The plant itself, when chewed, excites violent irritation in the mouth and throat; inflaming and even excoriating the tongue and inside of the cheeks and lips, if not quickly discharged.

*Medical Properties and Uses.* Crowfoot, when swallowed in the fresh state, produces heat and pain in the stomach, and, if the quantity be considerable, may excite fatal inflammation. Dr. Clarus states that it has also narcotic properties, diminishing the frequency of the pulse and respiration, and producing palsy of the extremities. It is, however, never used internally. The property for which it has attracted the attention of physicians is that of inflaming and vesicating the skin; and, before the introduction of the Spanish fly into use, it was much employed for this purpose. But the uncertainty and occasional violence of its action have nearly banished it from regular practice. It probably varies in strength with the season, and in the dried state, or in decoction, is wholly inert.

REALGAR. ($As_2S_2$.) This is the disulphide of arsenic. It is found native in Saxony, Bohemia, Transylvania, and in various volcanic regions. Realgar is artificially made by melting arsenious acid with about half its weight of sulphur. (*Turner.*) Thus prepared, it is of a crystalline texture, of a beautiful ruby-red color, of a uniform conchoidal fracture, somewhat transparent in thin layers, and capable of being sublimed without change. Native realgar is said to be innocent when taken internally, while that artificially prepared is poisonous, in consequence, according to Guibourt, of containing a little arsenious acid. Realgar is used only as a pigment.

RED CHALK. *Reddle.* A mineral substance of a deep red color, of a compact texture, dry to the touch, adhering to the tongue, about as hard as chalk, soiling the fingers when handled, and leaving a lively red trace when drawn over paper. It consists of clay and oxide of iron, and is intermediate between *bole* and *red ochre*, containing more oxide of iron than the former, and less than the latter. It is used for drawing lines upon wood, etc., and is sometimes made into crayons by levigating and elutriating it, then forming it into a paste with mucilage of gum arabic, moulding this into cylinders, and drying it in the shade. It has been used internally as an absorbent and astringent

REGIANINE. This is a principle obtained by Mr. Phipson from the nut of *Juglans regia*. It occurs in octohedral, prismatic, or feathery crystals, and gives with ammonia and other alkalies a reddish purple solution, from which hydrochloric acid precipitates an amorphous powder, *regianic acid*. It is probably identical with the *nucin* obtained from green walnut-shells.

RENNET. GASTRIC JUICE. For an account of the constitution of gastric juice and its properties the reader is referred to works upon physiology. The crude juice was used by Dr. P. S. Physick as a local application to cancerous and other foul ulcers, but is at present never employed externally or internally. Two preparations are, however, made from the stomach of lower animals, namely, rennet and pepsin; the latter being officinal. (See Part I.)

*Rennet.* This is an aqueous or vinous infusion of the dried stomach of the calf, though that of the sheep or other animal would probably answer the same purpose. It is much used, as every one knows, for curdling milk; a property which it owes to a portion of the gastric secretion, retained and dried in the mucous tissue of the stomach. To the same material it probably owes the property which it possesses of converting glucose into lactic acid; and there is little doubt that it is capable, in greater or less degree, of exercising the solvent property of gastric juice over albuminous and fibrinous food. The first of the properties just referred to suggested to Dr. James Gray, of

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Glasgow, the use of rennet in diabetes, with the object of promoting the conversion of any sugar of grapes that might be formed in the stomach into lactic acid, and thus preventing its entrance into the circulation in its unchanged state. He met with considerable success in this use of the remedy; and it has since been employed by others, in the same disease, with supposed advantage. Dr. Gray gave a teaspoonful of the rennet after each meal. To be efficient it must be recently prepared, and of such strength that a teaspoonful will coagulate a pint of milk in five minutes. (*Ed. Monthly Journ. of Med. Sci.*, 1853, p. 31.) Rennet seems also to have been popularly employed for promoting defective digestion in the west of England. (*Med. Times and Gaz.*, 1857, p. 411.) It is highly probable that the preparation usually employed to curdle milk may contribute to the ready digestibility of the curds and whey, so favorite an article of diet among children in this country. Dr. Geo. Ellis gives the following method of preparing *rennet-wine*, from which he has obtained the most satisfactory results, when pepsin from inadequate preparation had failed him. Take the stomach of a calf immediately after death, cut off and reject about three inches of the upper or cardiac portion, slit the stomach longitudinally, wipe it gently with a dry napkin so as to remove as little of the clean mucus as possible, then cut it into small pieces, the smaller the better, put it into a common wine-bottle, fill the bottle with good sherry, and let it stand corked for three weeks. The dose is a teaspoonful, in a wineglassful of water, immediately after each meal. It is known to be good if a teaspoonful will coagulate half a pint of milk in two minutes at 100° F. (*Dub. Med. Press*, July 16, 1862.)

RESEDA LUTEOLA. *Weld. Dyer's Weed.* An annual European plant, naturalized in the United States. It is inodorous, and has a bitter taste, which is very adhesive. Volhard showed that sulphocyanide of allyl, $C_3H_5$, OSCN (oil of mustard), was present in the root, and Chevreul obtained from it by sublimation a peculiar yellow coloring matter, which he called *luteolin*. Rochleder and Brener (*Journ. Prakt. Chem.*, 99, 433) found that when fused with caustic potash it was decomposed into phloroglucin and protocatechuic acid with evolution of carbon dioxide. In medicine it has been employed as a diaphoretic and diuretic, and is used only for dyeing purposes in Europe.

RESORCIN. ($C_6H_6O_2$.) Hlasiwetz and Barth first obtained this organic body in 1864 from galbanum resin, by fusing it with potassa; it was subsequently obtained from *sagapenum*, *assafœtida*, *ammoniac*, and *gum acaroides*. According to Kopp, it is most easily and cheaply prepared by the destructive distillation of *brazilin*, or from the wash or mother-waters obtained in its manufacture from Brazil wood. It is now (1882) best prepared by fusing potassium benzoldisulphonate with caustic potassa. *Resorcin* is a diatomic phenol, isomeric with *pyrocatechin* and *hydroquinone*. It crystallizes in prismatic crystals of the rhombic system, melting at 104° C. (219·2° F.), distilling at 267° C. (512·6° F.), easily soluble in water, alcohol, and ether, insoluble in chloroform and carbon disulphide. A small quantity treated with fuming sulphuric acid is dissolved, with the production of, first, an orange-yellow, then a greenish blue, and finally a pure blue color. Bromine-water precipitates its aqueous solution, *tribromresorcin* separating in minute crystals. Several of the compounds of resorcin with phthalic acid have assumed great technical importance as dye colors, under the names of *fluorescein*, *eosin*, and *uranine*. (For a case of poisoning by resorcin, see *N. R.*, April, 1882.)

RHIGOLENE. This name was given by Dr. H. J. Bigelow, of Boston, to a very light, inflammable liquid, obtained by distilling petroleum, and separating the liquids of the lowest boiling point by redistillation, until one is obtained which boils at about 18° C. (64·4° F.). It is not pretended that this is a peculiar definite compound; on the contrary, it is simply a fluid more volatile than any one previously known, and capable, consequently, of producing a greater degree of cold by its evaporation. In this respect rhigolene probably exceeds all other substances, with the exception of *cymogene*, which boils at 0° C. (32° F.). A degree of cold —9° C. (15° F.) is, according to Dr. Bigelow, obtained through the evaporation of this liquid by means of the common atomizer or "spray-producer." This is the chief use of the liquid; which may be employed as a substitute for ether, and with still greater effect, in producing congelation of any part of the body preparatory to a surgical operation, or a great degree of cold for any other purpose. It should, when not in use, be kept in a cool place, in bottles tightly corked; as otherwise it will be rapidly evaporated. In a warm place it might break the bottles through its extreme volatility, unless the stopper should previously be driven out. It has been accused of being liable to explosion; but this is not true, unless the vapor should be mixed, in certain proportions, with atmospheric air, and then approached by a burning body.

RHODODENDRUM CHRYSANTHUM. *Yellow-flowered Rhododendron.* The leaves of this Siberian rhododendron, when fresh, have a feeble odor, said to resemble that of rhubarb. In the dried state, they are inodorous, but have an austere, astringent, bitterish taste. They yield their virtues to water and alcohol. They are stimulant, narcotic, and diaphoretic, producing, when first taken, increase of heat and arterial action, subsequently a diminished frequency of the pulse, and, in large doses, vomiting, purging,

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and delirium. They have been long employed in Siberia as a remedy in rheumatism; and their use has extended to various parts of Europe. Their action is said to be accompanied with a sensation of creeping or pricking in the affected part, which subsides in a few hours, leaving the part free from pain. They have been recommended also in gout, lues venerea, and palsy. In Siberia they are prepared by infusing two drachms of the dried leaves in about ten ounces of water, in a close vessel, and keeping the liquid near the boiling point during the night. The strained liquor is taken in the morning; and a repetition of the dose three or four days successively generally effects a cure. The remedy is not used in this country.

RIGA BALSAM. *Balsamum Carpaticum. Balsamum Libani.* This is usually stated to be a product of *Pinus Cembra*, a large tree growing in the mountainous regions and northern latitudes of Europe and Asia. The juice exudes from the extremities of the young twigs, and is collected in flasks suspended from them. It is a thin, white fluid, having an odor analogous to that of juniper, and possessing the ordinary terebinthinate properties. In this country it is very rare; but it is occasionally brought from Riga or Cronstadt in bottles. M. Keller, of Darmstadt, affirms that Riga Balsam is nothing but the product of the ordinary *Pinus palustris*. A similar product, called *Hungarian balsam*, is obtained in the same manner from *Pinus Pumilio*, growing on the mountains of Switzerland, Austria, and Hungary. It is scarcely known in the United States.

ROBINIA PSEUDACACIA. *Locust-tree.* This well-known indigenous tree has a place in the Materia Medica of the "eclectics." The bark of the root is the most active part, and is said to be tonic, and in large doses purgative and emetic.

*Medical Properties.* Zwenger and Dronke (*Ann. Chem. Pharm.*, Supp., i. 257) found a glucoside, *robinin*, $C_{25}H_{30}O_{16}$, which, treated with dilute acids, yielded *quercetin* and a sugar. Hlasiwetz also obtained *asparagin*, $C_4H_8N_2O_3$, from the root. Three cases of poisoning in children, who had eaten of the root by mistake, have been recorded. The symptoms were like those produced by an overdose of belladonna; but all the children recovered. One of them, who happened to be laboring under intermittent fever at the time, had no return of the paroxysms afterwards. (*Ann. de Thérap.*, 1860, p. 64.) These facts render caution advisable in the use of the root, yet are also well calculated to stimulate inquiry.

ROTTEN STONE. *Terra Cariosa.* An earthy mineral, occurring in light, dull, friable masses, dry to the touch, of a very fine grain, and of an ash-brown color. It is obtained from Derbyshire in England, and is used for polishing metals. A particular account of it may be found in *A. J. P.*, 1860, p. 463.

RUBIA. (*Garance*, Fr.; *Krappwurzel*, G.; *Robbia*, It.; *Rubia de tinctoreros, Granza*, Sp.) Under this name the U. S. P. formerly recognized *madder. Rubia tinctorum.* Willd. *Sp. Plant.* i. 603; Woodv. *Med. Bot.* p. 173, t. 67. The root of the *dyers' madder* is perennial, and consists of numerous long, succulent fibres, varying in thickness from the size of a quill to that of the little finger, and uniting at top in a common head, from which also proceed side-roots that run near the surface of the ground, and send up many annual stems. These are slender, quadrangular, jointed, procumbent, and furnished with short prickles, by which they adhere to the neighboring plants upon which they climb. The leaves are elliptical, pointed, rough, firm, about three inches long and nearly one inch broad, having rough points on their edges and midrib, and standing at the joints of the stem in whorls of four, five, or six together. The branches rise in pairs from the same joints, and bear small yellow flowers at the summit of each of their subdivisions. The fruit is a round, shining, black berry. The plant is a native of the south of Europe and the Levant, and is cultivated in Asia Minor, France, Holland, and the south of Italy. It is from Holland that commerce derives its chief supply. The root, which is the part used, is dug up in the third summer, and, having been deprived of its cuticle, is dried by artificial heat, and then reduced to a coarse powder. In this condition it is packed in barrels, and sent into the market. Madder from the Levant is in the state of the whole root; from the south of France, either whole or in powder. The plant is also cultivated in this country, in the States of Delaware and Ohio. The root consists of a reddish brown bark, and a ligneous portion within. The latter is yellow in the recent state, but becomes red when dried. The powder, as kept in the shops, is reddish brown. Madder has a weak peculiar odor, and a bitterish astringent taste; and imparts these properties, as well as a red color, to water and alcohol. It contains as its most important constituent *alizarin*, $C_{14}H_6(OH)_2O_2$, and with it as coloring matter of secondary importance *purpurin*, $C_{14}H_5(OH)_3O_2$. Besides these two technically important constituents there has been recognized *pseudopurpurin*, an orange dye-color, and a yellow one (*xanthopurpurin*). These coloring matters, however, are probably decomposition products from glucosides existing in the fresh plant. Thus, alizarin is known to result along with glucose from the treatment with dilute acids of *rubianic* or *ruberythric acid*, $C_{26}H_{28}O_{14}$, according to the reaction: $C_{26}H_{28}O_{14} + 2H_2O = C_{14}H_8O_4 + 2C_6H_{12}O_6$. The most interesting of the coloring substances is the *alizarin*. It may be obtained from the alcoholic extract by sublimation, in the method employed by Mohr in obtaining benzoic acid. (*Journ. de Pharm.*, 3e sér., xxxi. 267.)

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It is orange red, inodorous, insipid, crystallizable, capable of being sublimed without change, scarcely soluble in cold water, soluble in boiling water, and very readily so in alcohol, ether, the fixed oils, and alkaline solutions. The alcoholic and watery solutions are rose-colored; the ethereal, golden yellow; the alkaline, violet and blue when concentrated, but violet red when sufficiently diluted. A beautiful rose-colored lake is produced by precipitating a mixture of the solutions of alizarin and alum. Alizarin was recognized by Graebe and Liebermann in 1868 as a derivative of anthracene, $C_{14}H_{10}$,—a hydrocarbon contained in coal-tar,—and in the same year they elaborated a method for preparing it commercially from anthracene. Upon this arose rapidly a great chemical industry, so that in 1878 the value of the artificial alizarin annually produced was nearly $7,500,000. Madder also contains sugar; and Döbereiner succeeded in obtaining alcohol from it by fermentation and distillation, without affecting its coloring properties. It is much used by dyers.

Madder was formerly thought to be emmenagogue and diuretic, and was used in amenorrhœa, dropsy, jaundice, and visceral obstructions. It is still occasionally prescribed in suppressed menstruation; but physicians generally have no confidence in its efficacy in this or any other complaint. When taken into the stomach it imparts a red color to the milk and urine, and to the bones of animals, without sensibly affecting any other tissue. The effect is observable most quickly in the bones of young animals, and in those nearest the heart. Under the impression that it might effect some change in the osseous system, it has been prescribed in rachitis, but without any favorable result. The dose is about half a drachm, repeated three or four times a day.

RUTA. Under this name the U. S. P. formerly recognized the *Ruta graveolens. Common rue* (*Rue odorante*, Fr.; *Garten-Raute*, G.; *Ruta*, It.; *Ruda*, Sp.) is a perennial plant, usually two or three feet high, with several shrubby branching stems, which, near the base, are woody and covered with a rough bark, but in their ultimate ramifications are smooth, green, and herbaceous. The leaves are doubly pinnate, glaucous, with obovate, sessile, obscurely crenate, somewhat thick and fleshy leaflets. The flowers are yellow, and disposed in a terminal branched corymb upon subdividing peduncles. The calyx is persistent, with four or five acute segments; the corolla consists of four or five concave petals, somewhat sinuate at the margin. There are usually ten stamens, but sometimes only eight. The plant is a native of the south of Europe, but cultivated in our gardens. It flowers from June to September. The whole herb is active; but the leaves are usually employed. These have a strong disagreeable odor, especially when rubbed. Their taste is bitter, hot, and acrid. When recent, and in full vigor, they have so much acrimony as to inflame and even blister the skin, if much handled; but the acrimony is diminished by drying. Their virtues depend chiefly on a volatile oil, which is very abundant, and is contained in glandular vesicles, apparent over the whole surface of the plant. (See *Oleum Rutæ.*) They contain, also, according to Mähl, chlorophyll, albumen, an azotized substance, extractive, gum, starch or inulin, malic acid, and lignin; and, according to Bornträger, a peculiar acid which he calls *rutinic acid*, $C_{25}H_{28}O_{15}$. (*Chem. Gazette*, 1845, p. 385.) Rutinic acid is the coloring principle of rue, and has been found in various other plants. It was thought, at one time, that it might be identical with quercitrin; but though, like that principle, yielding quercetin and sugar, it has been shown to be distinct. Like quercitrin, it seems to play an important part in the coloring of plants. (*Journ. de Pharm.*, 1862, p. 165.) Both alcohol and water extract their active properties.

*Medical Properties and Uses.* Rue is stimulant and antispasmodic, and, like most other substances which excite the circulation, occasionally increases the secretions, especially when deficient from debility. It appears to have a tendency to act upon the uterus; in moderate doses proving emmenagogue, and in larger, producing a degree of irritation in the organ which sometimes determines abortion. Taken very largely it acts as an acrid narcotic poison. Three cases are recorded by Dr. Hélie in which it was taken by pregnant women, with the effect of producing dangerous gastro-intestinal inflammation and cerebral derangement, which continued for several days, but ended at length in recovery. In each instance miscarriage resulted. Great depression and slowness of the pulse attended the narcotic action of the poison. In one of these cases, three fresh roots of the size of the finger were used in the form of decoction. (*Ann. d'Hyg. Pub. et de Méd. Lég.*, xx. 180.) A case is recorded by Dr. G. F. Cooper in the *Nashville Journ. of Med. and Surg.*, in which a man, convalescent from dysentery, having added some brandy to a handful of the bruised herb, expressed it, and took the whole of the liquor, with fatal effects. The prominent symptoms were vomiting, violent tormina, tenesmus with bloody stools, abdominal distention with tenderness, and severe strangury. (*Med. Exam.*, N. S., ix. 720.) Rue is sometimes used in hysterical affections, worms, flatulent colic, and amenorrhœa, particularly in the last complaint. It has also been highly recommended in uterine hemorrhage, especially when dependent on an atonic state of the organ. The ancients employed it as a condiment, and believed it to possess, besides other valuable properties, that of resisting the action of poisons. Its excitant and irritating properties require that it should be used with caution. The dose is from fifteen to thirty grains two or three times a day, preferably given in infusion.

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