

**Apparatus.**—Apparatus has for its object either the prevention of faulty attitudes, or the retention in improved positions, or else the application of a force constantly exerted to maintain correction beyond the point of flexibility.

The use of apparatus in the first two instances is to supplement other treatment. If one could be sure that, after an increase of the flexibility by the methods of forcible correction, the improved position would be held by muscular action, there would be no need of further retention. If, on the other hand, exercise treatment can be carried out but a short period of each day or less, and during the remainder of the time the child is continually assuming its habitual malpositions, there is then evident need of some means of retention during the interval.

When used for the first object, that of preventing faulty attitudes, the apparatus should be very simple, and no attempt should be made to exert pressure, its use being rather as an aid or as a reminder. It may be that only a crutch, fastened to the child's waist to prevent the drooping of the shoulder, may be necessary, or a light upright to prevent the child from sagging either in the antero-posterior or in the lateral direction. In any case it should be adapted to the individual need.

When applied for the second object, that of retention, the aim of the apparatus is to hold the patient in a better position than he can maintain by his own unaided efforts. In these cases as much force as is compatible with the patient's comfort is used and is applied either in the antero-posterior or the lateral plane. In this the pressure must always be made over the points of greatest curve, and there must be two points of counter-pressure on the opposite side well above and below the limits of the curve. In other words, counter-pressure in the concavity of the curve must be carefully avoided.

Apparatus for the object of correction consists of the employment of a plaster jacket applied in the over-corrected position. Such a method is applicable in the treatment of patients who come from a distance, or who for other reasons are unable to carry out a definite and continuous treatment, and it is also adapted to those cases which require more forcible stretching than can be carried out by the gymnastic method. The method consists in the application of a jacket while the patient is in either the recumbent or the semirecumbent position, pressure being made over the points of convexity, while by means of clamps the hips and shoulders are fixed in the desired position and counter-pressure is applied. This affords a most satisfactory method of treatment for the severer cases which can be helped by no other means, and also for improving the condition in the lighter forms of the structural cases, as preliminary to the later use of gymnastic exercises with some form of removable apparatus.

This method has been most thoroughly practised by Wolfstein. His method is to employ the forcible straightening for the increase of flexibility as preliminary treatment, and then to encase the patient in plaster from the pelvis, including the head. The method as practised by Wolfstein is effectual, but is so severe that it can be carried out only in selected cases. As ordinarily practised, however, it has a wide range of application.

Elliott G. Brackett.

**LAUGHING** may be defined as an expression of mirth by means of altered facial expression and a series of forcible intermittent expirations with the production of characteristic inarticulate sounds. When excessive it is accompanied by lachrymation. Although an involuntary act, it is to such an extent under control of the will that ordinarily it may be suppressed or rendered inaudible. It is imitated with difficulty.

Laughing is peculiar to the human species. Some of the lower animals and birds have the power of producing sounds like those of laughter, but the facial expression is lacking and there is no evidence that the sounds are employed to express mirth.

In point of time the respiratory movements are preceded by the change of facial expression, the smile.

This consists for the most part in an elevation of the angles of the mouth, an increased prominence of the cheeks, and slight elevation of the outer extremities of the lower eyelids; the mouth is then opened and the explosive sounds begin to issue from it. A series of a more or less distinct "ha-ha" is the usual audible expression, and the word itself has been adopted by the North American Indians to signify laughing:

"And he named her . . . Minne-ha-ha, Laughing Water."

Laughing varies much in character in different individuals and in persons of different nationality, and there is a no less difference in individual propensity to laugh. Some seem to possess an instinctive inclination to laugh, while others are so morose as rarely to enjoy it. Some never laugh beyond moderation, others are all but too readily thrown into paroxysms.

The impulse is generally received through the sense of sight or that of hearing, but more susceptible persons may be moved through any of the other senses, especially by tickling or even by suggestive motions and not infrequently by their own thoughts and recollections. To a certain extent a person's laughter, and still more his susceptibility to it, is an index to his character, for a lack of control in this regard may signify weakness in other faculties. Loud laughing is looked upon as rudeness in a woman and tittering is indicative of femininity in a man. A good, whole-souled laugh is generally a passport into society; its counterfeit is readily recognized. But laughing may become so impulsive, even in one not abnormally excitable, as to be for a time at least entirely beyond control. In a fit of laughter, a person may lose all muscular control, even the ability to stand. He sits with his head thrown back, the limbs extended, the arms hanging limply at the sides, while his whole frame shakes; shouts and screams issue from the widely opened mouth, and tears trickle down from the half-closed eyes; an unfortunate relaxation of the sphincters sometimes occurs. A happy, vigorous child will roll upon the floor in paroxysms.

There is also a sympathetic influence in laughter; we say that it is infectious, for one person will frequently incite it in many others who do not so much as know the cause of the merriment. So intimate is the relation between laughing and crying that one may quickly succeed the other or insensibly merge into it. In the hysterical seizure, laughing and crying are interchangeable modes of expressing the abnormal emotions. Under the influence of mixed emotions or great excitement, sobs may suddenly give place to violent laughing, as was illustrated in Victor Hugo's character, Gwynplaine; or sounds may be emitted which can with difficulty be distinguished as belonging to one or the other class.

The impulse to laugh may be intense, concentrated, or diffuse and cumulative. The more intense the impulse, as a rule, the more violent is the outburst, but the enjoyment may be no greater. More pleasure may be experienced, for example, in the possibly silent laugh which follows the reading of a humorous description with suitable climax than in the sudden outburst at sight of something ludicrous. Laughing is not devoid of inherent pleasure, yet few ever laugh simply for the pleasure of it, except as the child that asks to be tickled. Real laughing is in fact impossible in the absence of a proper stimulus.

The nervous mechanism of the act is not fully understood. Like that of crying, it is probably not under control of a single nerve centre, but rather under the group of centres concerned in respiration and facial expression. All the muscles of respiration are doubtless involved, but more particularly those of the diaphragm. The act consists of a succession of rapid contractions of the diaphragm with more or less forcible expulsion of the air from the lungs through a widely opened glottis, the vocal bands being held tense. The sound is often produced in part also by the vibration of other tissue folds in the larynx and pharynx. The muscles of the face concerned are chiefly the several elevators of the angles of

the mouth and of the lower eyelids and to some extent the orbicularis oris and palpebrarum. By voluntary effort, however, other muscles may be brought into play for the expression of wonder, surprise, or even of disapproval, astonishment, or disgust.

Benefit is unquestionably derived from laughter. Every physician is sensible to its influence upon his patients, for "A good laugh is better than medicine." The fact that fleshy persons are generally hearty laughers has given rise to the adage, "Laugh and grow fat," but it is probable that both these qualities are favored by the same temperament.

Laughing becomes difficult or impossible in paralysis or painful affections of the respiratory muscles and in inflammatory affections of the thoracic or abdominal tissues or viscera. An inability to laugh, in the absence of such conditions, is often a valuable indication in symptomatology, for, although a person who is seriously ill is naturally disinclined to mirth, persistent disinclination may indicate to the physician some mental distress, lasting, poignant grief, a pricking conscience, or domestic infelicity. The neurasthenic patient is slow to laugh and nothing more certainly indicates improvement than a restoration of this faculty.

The overexertion attendant upon an uncontrollable paroxysm is not devoid of danger. Death has repeatedly occurred, probably from cerebral hemorrhage or rupture of the heart or of an aneurism induced by it, and it is stated that the death penalty has been executed by means of tickling.

James M. French.

**LAUREL.**—**ROYAL BAY.** The true Laurel of Europe, *Laurus nobilis* L. (fam. *Lauraceae*) is a handsome, fragrant-leaved evergreen shrub or small tree, from two to six metres in height, with numerous slender, smooth, green, very leafy branches, and dark-green, shining, leathery, oblong-lanceolate or lanceolate, entire, but often wavy or slightly revolute-margined leaves, and producing an ovoid berry, with soft flesh and a large, fleshy seed.

This laurel is a native of Asia Minor and Syria. It has long been grown in and is probably a native also of Greece and the islands of the Eastern Mediterranean. Further, it has been cultivated in Italy, at least as long ago as the days of classic Rome, and in the southern part of Europe generally, in England for several hundred years, and recently in Mexico and the West Indies. It is supposed to be the plant dedicated by the ancient Greeks to Apollo, and regarded by them as an emblem of purification, peace, victory, and good luck in general. It is the laurel of sculpture, painting, and literature. The leaves have been described in the article entitled "Bay." The fruits are about 1 cm. long ( $\frac{1}{2}$  inch), and when dried are dull-brownish-black, slightly withered, with a brittle papery exterior and a brown, smooth kernel, splitting easily into two large cotyledons. Odor peculiar, strong, spicy; taste balsamic and bitter.

The fruits are rich in fragrant and fatty constituents, the latter principally in the embryos. The *essential oil* (0.23 per cent.), a colorless or yellow liquid, gives them their odor. The *fatty oil* is obtained by pressing or boiling; it is a yellowish-green, buttery soft-solid, fragrant with some dissolved essential oil; it is soluble in ether, but only partially so in alcohol. Laurel fat is a composite substance, consisting of glycerides of oleic and stearic, as well as palmitic, myristic, lauric, and probably other acids. The leaves, which are used abroad as a kitchen flavor for soups, etc., contain *essential oil*, *tannin*, a bitter substance, etc.

**ACTION AND USE.**—The leaves and essential oil have no peculiar action to distinguish them from other fragrant substances (see *Cinnamon*, for instance). The impure fat of the seeds is moderately stimulant to the skin, and is used as an ointment in rheumatism, paralysis, etc., internally as an aromatic. It is a medicine of great antiquity, but at present it is nearly obsolete so far as the practice of physicians goes. Neither the fruit nor the leaves have any consumption in the United States.

Certain brands of "stick liquorice" are packed in Bay leaves.

*Essential Oil of Laurel* is an article of commerce, and, except for refined distinctions as to odor, etc., is the same from both fruit and leaves. The latter has a specific gravity of about 0.924, the former 0.925. The principal constituents are pinene and cineol.

W. P. Bolles.

**LAVENDER.**—**LAVANDULA:** *Lavandula angustifolia* (L.) Miller (fam. *Labiatae*).

A perennial, partly shrubby plant, with short, crooked, branching stems, and numerous slender, upright, simple branches, from one third to more than one metre in length. Leaves opposite, linear with entire, slightly revolute margins. Flowers in small opposite cymes, closely aggregated into spike-like clusters at the ends of the slender branches. All the green parts, calyx, branches, and leaves, are covered with a tomentum of stellate hairs and stalked glands. Calyx tubular-ovoid, with only one lobe (the upper) developed. Corolla tubular, curved, with spreading two-lipped border, lobes of both lips rounded, those of the upper longer and straighter than those of the lower, color pale violet; stamens four, inserted in the corolla tube, ovary four-celled and four-seeded. Lavender is a native of the southern part of Europe and the northern border of Africa, growing in elevated and dry places. It has also been cultivated for centuries, and the herbage, flowers, and oil are all in the market.

The flowers, dried, are about 5 mm. long ( $\frac{1}{2}$  inch), of a general blue-gray color, with very hairy calyx. The retention of the bright blue color of the flowers is an indication of careful drying, freshness, and fine quality. The fragrance is delightful, the taste bitterish, aromatic, somewhat camphoraceous.

**COMPOSITION.**—Lavender flowers contain about one or one and a quarter per cent. of *essential oil*, which they retain, if properly kept, for years; the stems also contain a similar but less agreeable oil. With this oil there is a little tannin and resin.

**ACTION AND USES.**—The action of lavender is purely that of an aromatic stimulant and carminative, like its relatives in the family. Its odor is highly esteemed by almost every one. It is not strange, therefore, that aside from the oil, both the plant and the flowers should have an extensive use, especially in domestic practice. Both have been official in our own and other

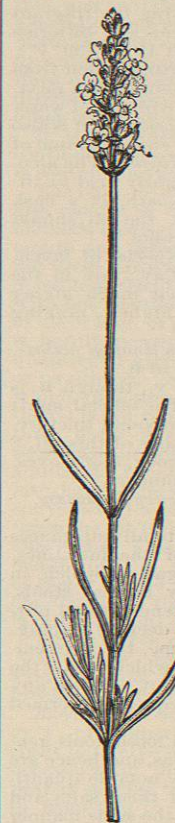


FIG. 317.—Flowering Stem of Lavender. (Baillon.)



FIG. 318.—Lavender; Single Flower. (Baillon.)

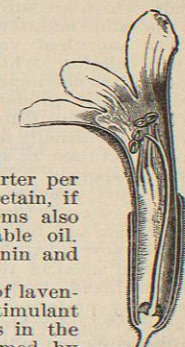


FIG. 319.—Lavender; Longitudinal Section of Flower. (Baillon.)

pharmacopœias, but professional use is now almost entirely restricted to the oil, which is described below. The dose of lavender is 1 to 4 gm. (gr. xv.-lx.) corresponding to about one minim of the oil, though the latter is given in larger doses.

**LAVENDER, OIL OF.** *OLEUM LAVANDULÆ FLORUM* (U. S. P.). Both the oil of the plant and that of the flowers are commercial, and both have been official, though only that here considered is so at present. They are very similar, that of the flowers being only a little finer. The official article is thus described:

"A colorless or yellowish liquid, having the fragrant odor of lavender flowers and a pungent and bitterish taste. Specific gravity 0.885 to 0.897 at 15° C. (59° F.). It is soluble in all proportions in alcohol (distinction from *oil of turpentine*) and in three times its volume of a mixture of three volumes of alcohol and one volume of water (distinction from and absence of *oil of turpentine*); it is also soluble in glacial acetic acid. With an equal volume of carbon disulphide it forms a turbid mixture. The alcoholic solution of the oil is neutral or slightly acid to litmus paper. When heated on a water-bath, in a flask provided with a well-cooled condenser, the oil should yield no distillate having the odor of alcohol."

A number of inferior oils, from other species of lavender, chiefly spike oil, from *L. Spica* Cav., are in the market and are all distinguished by their much higher specific gravity, that of spike oil, the highest, ranging from 0.905 to 0.920.

The active portion of oil of lavender is *linaloyl acetate*, which should constitute about one-third of it.

The dose of lavender oil is ℥i. to v., though it is comparatively little used internally. The official spirit has a strength of five per cent. The compound tincture, or compound spirit, contains, with 8 parts of this oil, 2 of oil of rosemary, 20 of cassia, 10 of nutmeg, 5 of cloves, in a thousand, and is colored with red saunders.

Henry H. Rusby.

**LAXATIVES.**—This term is applied to all substances which gently evacuate the contents of the intestines. Some authors limit its use to those purgatives which, in large doses, produce normal or nearly normal stools, without obvious irritation. Others extend it to all purgatives which operate without causing decided griping. As generally employed at the present time, the term embraces all medicines and articles of food which render the stools softer and more frequent, without causing any notable irritation. Laxatives are frequently termed aperients, lenitives, and ecoprotics.

*Articles of food* which cause bulky and loose stools generally provoke daily intestinal evacuations, and hence are called laxative foods. They all contain notable quantities of indigestible matter, and some of them salts and acids, which are supposed to operate in the same manner as the saline laxatives.

The succulent vegetables and fleshy fruits contain much cellulose, which, for the most part, resists digestion, and hence increases the bulk of the feces, and thus mechanically promotes peristalsis of the large bowel. When they constitute a large part of the diet a daily easy evacuation usually takes place. Many persons, however, cannot eat them in sufficient quantity without suffering from dyspepsia. The most laxative fruits are prunes, figs, pears, peaches, apples, and berries. One or two oranges eaten before breakfast will sometimes cause an evacuation in a few hours.

The most laxative foods are those prepared from the unbolted meal of the cereal grains. Graham bread or brown bread, prepared from unbolted wheat-meal, is generally preferred for continued use, and, when it forms a considerable part of the diet, almost uniformly causes sufficient action of the bowels. Cracked wheat is equally laxative, and is occasionally eaten by persons of costive habit. Oatmeal and Indian-meal are also useful, but are usually less relished than brown bread. Pure bran is sometimes employed as a laxative in quantities of one or two tablespoonfuls daily.

Saccharine articles, such as honey, molasses, and brown sugar, if indulged in freely, usually provoke a daily intestinal evacuation. Sugar of milk, in quantities of from two to four drachms, dissolved in half a pint of warm skim milk, and taken about two hours before breakfast, frequently produces one or two loose stools in a few hours. Some persons procure an easy motion soon after breakfast by drinking a tumbler of cool water immediately after rising.

Generally, laxative foods which cause bulky evacuations increase the appetite. In part this results from the waste of much nutritious matter, which is less completely digested when mixed with a quantity of indigestible cellulose or woody fibre.

*Laxative medicines* are employed in habitual constipation when a laxative diet and other appropriate hygienic measures have failed to cause regular action of the bowels, or when they cannot be adopted. They are generally preferred to stronger purgatives in acute constipation, unless the latter are required to produce effects on the general system.

**Magnesia and Magnesi Carbonas.**—In moderate laxative doses these medicines cause feculent stools in from eight to ten hours. They rarely operate sooner than six hours, and often not before twelve to twenty-four hours. Occasionally their action is attended by some nausea and colic. According to Trousseau, the continued use of magnesia may be followed by irritation of the large intestine, the stools becoming mucous and bloody. Its habitual use has been followed by accumulations of ammonio-magnesian phosphate in the colon, which could be felt through the walls of the abdomen. Such concretions may give rise to obstinate constipation, typhlitis, and perforation of the bowel.

Very small doses of magnesia and its carbonate do not act on the bowels, as they form salts with hydrochloric and lactic acid in the stomach, which are completely absorbed. But when larger quantities are taken than can be thus neutralized in the stomach, the excess passes into the intestines, where it is gradually converted into a bicarbonate, which, on account of its low diffusibility, passes into the lower part of the bowels and excites peristaltic action. One gram of magnesia is capable of absorbing 1,100 c.c. of carbonic acid gas; hence it has been used in cases of meteorism, but has not proved very effectual, partly because carbonic acid gas forms only a part of the intestinal gases, and partly because of the arrested peristalsis.

On account of their antacid property, magnesia and its carbonate are indicated when constipation is associated with an excessive formation of acids in the alimentary canal. By combining with the acids they prevent further irritation, and by hastening peristalsis remove the causes of fermentation.

Magnesia is frequently used in infantile diarrhoea when the stools are green in consequence of an excess of acid. Often the diarrhoea ceases as soon as the stools acquire their normal color.

In all cases in which a very gentle laxative is indicated, as in debilitated adults and feeble children, magnesia or its carbonate may be employed.

The dose of magnesia for adults varies from ʒ ss. to ʒ i., and for children from gr. v. to gr. xx. Of the carbonate about one-fifth more may be given.

Magnesia is ordered in the form of powder or mixture. Heavy magnesia is preferred for powders, and is usually taken in milk or sweetened water.

Mixtures of magnesia gelatinize rapidly, unless they contain about sixteen parts by weight of water and four parts of syrup or glycerin. According to Hager, a mixture consisting of one part by weight of magnesia, ten parts of distilled water, and four parts of glycerin, remains liquid for a long time.

**Liquor Magnesi Citratis and Magnesi Citras Granulatus.**—The solution of citrate of magnesium, and the granulated citrate of magnesium, in moderate doses, act very gently. In the alimentary canal they are converted into the bicarbonate of magnesium in the same manner as calcined magnesia.

The dose of the solution is ʒ iv.-vi.; of the granulated salt, ʒ ij.-iv.

Certain mineral waters containing notable quantities of sulphate and chloride of magnesium, and sulphate of sodium, especially Friedrichshall and Hunyadi János, are frequently employed as laxatives. They usually act gently, producing thin and watery stools, without griping or tenesmus. Generally they move the bowels in a few hours, but numerous exceptions occur. After a time the bowels no longer respond to them, so that even large doses, which at first operate with considerable energy, soon have little or no effect. The minimum laxative dose varies greatly in different persons, but usually from four to eight ounces act gently and promptly. These waters are said to be useful in habitual constipation depending on simple chronic intestinal catarrh, or on nervous atony of the bowels, as found in hypochondriacal, hysterical, and sedentary persons. Their prolonged use in the constipation of feeble and anæmic patients is injurious.

**Potassii et Sodii Tartras.**—In doses of ʒ ij.-iv. the tartrate of potassium and sodium, or Rochelle salt, usually produces one or several loose stools in from three to six hours, without colic or tenesmus. On account of its not disagreeable taste and mild action, it is frequently used in the diseases of children and delicate adults, when an aperient is indicated. It is held to be preferable to other laxatives in cases of constipation attended with a deposition of urates in the urine, or with defective secretion of bile.

Generally it is ordered in the form of powders, each ʒ ij. with a small quantity of sugar and oil of lemon. If ordered in solution, fruit syrups should not be added as flavoring agents, as they are incompatible with the salt. When the stomach is irritable, the salt is usually given in the form of *Puleis effervescens compositus*, or seidlitz powders. These consist of ʒ ij. of tartrate of potassium and sodium and gr. xl. of bicarbonate of sodium, wrapped in a blue paper, and gr. xxxv. of tartaric acid, wrapped in a white paper. The two powders, when taken, are dissolved separately, the former in about four ounces of water, the latter in one ounce. The solutions are then mixed and drunk while effervescing.

**Sulphur.**—Washed and precipitated sulphur, in doses of gr. xx.-lx., act very gently and slowly, producing one or two feculent stools, which usually have a strongly marked odor of sulphureted hydrogen. The laxative action is held to be due to the sulphide of sodium formed in the intestines. Some of the sulphide is decomposed by the carbonic acid gas of the bowels, which causes the evolution of sulphureted hydrogen. As only a part of the sulphur can undergo chemical changes, large doses do not produce brisk purgation. After prolonged use of sulphur a disagreeable odor may be detected in all the secretions.

As a laxative sulphur is held to be useful in cases of piles, fissure of the anus, and stricture of the rectum, because it produces soft, easily moulded stools, which pass from the rectum without irritating the highly sensitive parts. It is often combined with other purgatives, such as magnesia, bitartrate of potassium, and senna, but acts well without such additions. The following formula of Brodie's is highly recommended by Cripps as a mild laxative for internal piles. ℞ Conf. sennæ, ʒ iss.; sulph. precip., ʒ ss.; mel. rose, q. s. M. S.: About a teaspoonful every night. Usually sulphur is ordered in the form of powder, which may be taken in milk, syrup, or molasses. It should not be ordered in liquid mixture, as it soon firmly adheres to the bottom of the phial.

**Oleum Ricini.**—Castor oil in appropriate doses usually acts very gently, producing one or two evacuations in from three to six hours. Large doses act more briskly, and often cause nausea and vomiting, with somnolency and a feeling of weakness. If the oil is rancid, small doses may be followed by such effects.

In the duodenum castor oil is decomposed like other oils, and its ricinoleic acid set free. Some authors hold that this acid irritates the mucous membrane and thus

excites peristaltic action. Others suppose that an acrid substance, insoluble in water, alcohol, ether, and alkalies, and readily decomposed by heat, is the purgative principle. In experiments on isolated parts of the intestines of dogs, Brieger found that the oil caused firm contraction of the bowel without any appearances of hyperæmia.

On account of its gentle, speedy, and certain action, castor oil is often used when constipation occurs in the diseases of children, in pregnant women, after parturition, and in delicate persons. For the same reasons it is generally preferred to other laxatives when evacuation of the contents of the bowels is required in typhoid fever, dysentery, and other inflammatory affections of the intestines or adjacent organs. It is also suitable to cases of diarrhoea caused by the presence of undigested food or other irritating substances.

It is not appropriate in habitual constipation, as its continued use soon causes disorder of the stomach; and it is contraindicated in gastric catarrh.

The only objection to castor oil is its disagreeable taste, due chiefly to its adhesiveness and viscosity. Various methods of disguising it are in use. Its adhesion to the mouth and throat may be prevented by previously rinsing these parts with an alcoholic liquid. It may be rendered less viscid and comparatively tasteless by mixing it with hot bouillon, hot coffee, or milk, or with the foam of ale or beer, or peppermint water and brandy. Its taste is hardly perceptible when it is mixed with an equal quantity of glycerin and a few drops of oil of cinnamon or gaultheria. Sometimes it is administered in capsules, which, of course, are perfectly tasteless. It is said that the oil is not repulsive when rubbed up into a mass with three parts of sugar, or with two parts of compound powder of liquorice. The latter form is adapted only to adults, the former to children. The mass may be divided into large pills which, placed upon the tongue, can be conveniently swallowed with a draught of water. Sometimes the oil is ordered in emulsion with gum arabic: ℞ Olei ricini, ʒ ss.; pulv. acaciæ, ʒ i.; syrupi, ʒ ij.; aq. menth. pip., q. s. ad ʒ ij. M. ft. emuls. In emulsions of castor oil the gum arabic should not exceed in weight one-fourth of the oil, as it is apt to interfere with the laxative action.

The laxative dose of castor oil for adults varies from ʒ i. to ʒ iv., for children from ʒ i. to ʒ ij. Sometimes a dose of from ℥ xx. to ℥ xxx., taken two hours before breakfast, acts gently in a few hours.

**Rheum.**—In some persons as little as from gr. iij. to gr. v. of rhubarb causes a feculent evacuation in from eight to twelve hours. In others as much as gr. x. is necessary for this effect. Doses of gr. x.-xv., if repeated several times, usually cause two or three stools in from five to ten hours, each stool being preceded by some griping. The stools are usually yellow and semi-liquid.

If taken habitually, laxative doses of rhubarb soon fail to act, and finally even large doses may have little effect. There are, however, numerous exceptions to this rule, some persons using it habitually for many years without being under the necessity of materially increasing the dose.

Rhubarb is well adapted to the habitual constipation of persons with feeble digestion. Often laxative doses not only produce a daily evacuation, but also increase the appetite and relieve oppression after meals. In the constipation of persons afflicted with piles, gr. v.-x. taken every night, or as often as needed, act well and frequently give great relief. A daily laxative dose is useful also in the costiveness and hemorrhoidal swellings incident to pregnancy.

Rhubarb is often preferred to other laxatives when constipation occurs during convalescence after acute diseases, or in anæmic, cachectic, very feeble, or very aged patients. In icterus also, a laxative being required, many physicians prefer rhubarb. It is used in some forms of diarrhoea, especially when symptoms of dyspepsia are associated with the looseness of the bowels. In such cases only very small doses are given, and the good