

North, who has a little varied the prescription of Dr. Griffith.

R. Pulv. Myrrhæ, ʒij. }
Sulph. Ferri, ʒj. } make a
Carb. Potassæ, ʒss. } mass, to
Gum. Camph. grs. xvi. } be divid-
Syrup. q. s. } ed into
36 pills.

Three of these pills may be taken three times a day, drinking after each dose, a decoction of the cinchona, eleutheria, or angustura barks; or the colomba or quassia roots.

The rooms of the sick should be kept uniformly warm, but freely ventilated; and the bed and body linen changed as often as every other day.

No disease requires more careful nursing, and perhaps none is more liable to relapses. These happen not so much from indulging the appetite in eating; for a convalescent patient has seldom been known to be injured by taking beef or mutton steak, chicken, neat's tongue, ham, small fresh fish, &c. in due moderation; but from too early an exposure to cold or to fatigue. Severe relapses, when they do occur, are frequently dangerous, and often fatal; but are to be treated as new cases.

More than two thousand cases of this disease have been managed according to the method herein described; and after making every allowance for delay in calling for advice; improper remedies previously used; bad nursing; uncomfortable situations; the want of necessary supplies, and imprudence on the part of the patient, often occasioning relapse; the average number of deaths has not exceeded two and a half in a hundred.—The fever has generally run its course by the fourteenth day.—Many violently attacked were cured by the

third day; particularly because in such cases there was no delay in calling for immediate advice, or neglect in following it.—Since the present year (1816) commenced, few or none but pneumonic cases have appeared; and these generally have been milder than heretofore. Since February last, the writer has attended upwards of two hundred and twenty patients in this form of the disease, of whom one only has died; and to him he was not called till after he got a relapse, from fatigue in walking out and taking cold. One only of this number, a man of robust and full habit, was once bled to the amount of eight or ten ounces; and this bleeding might have been safely omitted.

Before closing this paper, it may be remarked, however, as a general fact, that the disease as here described and treated, was once only observed by the writer on the seacoast; his residence as a practitioner confining him to the interior parts of the country, where both the situation and winds are dry and healthy.

II.

ON SANGUINARIA CANADENSIS.

By DANIEL B. SMITH.

Nat. ord. PAPAVERACEÆ.

Lin. meth. POLYANDRIA MONOGYNIA.

SANGUINARIA. Cal. 5-phyll. deciduous. Stigma, sessile, 2-grooved. Capsule, superior, oblong, 1-celled, 2-valved, apex attenuated. Receptacles, 2, filiform, marginal.—Nuttall.

S. canadensis. Root tuberous, horizontal, giving out a reddish and very acrid lactoscent sap. Leaves solitary, radical, reniform and lobed, scape naked, 1-flowered, sheathed at base, petals variable in number. April and May. Perennial.—Nuttall.

THIS beautiful species is one of the earliest flowering plants of North America, and expands its showy

white petals along with the *Hepatica Triloba*, the *Violas* and the *Epigea Repens*, beneath the first genial warmth of spring. It grows throughout the United States, and its favorite situation is the shady border of woods in a rich light soil. The root of the *Sanguinaria* is of a rich brown color, horizontal, abruptly terminated, fleshy, about the thickness of a finger, frequently twisted, and very juicy. It may be readily distinguished by the color of its juice, which is of a bright orange, and tinges woollen or silk of a deep and rather permanent yellowish red. The root is furnished with numerous slender radicles, and makes offsets from the side, which succeed to the old plant, and thus acquire the præmorse character that marks the species. The leaf and flower spring up together; the folded leaf enveloping the scape and flower bud, and rolling back as the latter expands. The stem is simple, smooth, from six to twelve inches in height, and terminated by a single reniform or somewhat heart-shaped deeply lobed leaf. The leaf is smooth, of a deep green on the upper surface and pale or light bluish beneath, and strongly marked by veins, which are tinted with the orange-colored sap that pervades the whole plant.

The scape is one flowered, round and smooth. The calyx is two-leaved and falls off as soon as the flower opens; its leaves are obtuse and ovate. There are usually eight petals, although they vary from that number to fourteen. The petals are spreading, ovate, obtuse and concave. The stamens are numerous, with yellow filaments, shorter than the corolla and orange-colored oblong anthers. The germ is oblong, compressed; the stigma sessile, thick, two-furrowed or some-

what lobed, permanent. The capsule is oblong, sharp at both ends, two-valved. The seeds are numerous, round, deep, shining, red, somewhat pointed and having a white arilla.

The blood-root, as it is commonly called, from its most striking peculiarity, is termed *Puccoon* in the native Indian dialects. It is used as a dye by the Indians to stain their baskets, skins, &c.

Its taste is acrid and bitter, and leaves a strong sensation of heat in the mouth and throat.

Its medical properties are those of an acrid narcotic, acting in doses of from ten to twenty grains as a dangerous irritant, and emetic. The whole plant possesses active properties, although the root is the part which has been most carefully examined.

Dr. Dana, of the University of New York, instituted a set of experiments on this root in 1824, and succeeded in obtaining an alkaline substance from it, which is probably the active principle of the plant. This principle, which he calls *sanguinarina*, may be obtained by digesting the finely powdered root in absolute alcohol, and adding to the tincture a solution of ammonia, so long as it occasions any precipitate. A gray powder falls down, which is to be collected and boiled in water with some pure animal charcoal and the liquid then filtered. Alcohol is to be digested on the matter remaining on the filter, and afterwards evaporated to dryness. A white, pearly substance remains, having an acrid taste, rendering brown the yellow of turmeric, and changing the infusion of purple cabbage to a green. This substance is the *sanguinarina*. It is very sparingly soluble in water; but is soluble in ether and very soluble in alcohol. With

tincture of galls it affords a precipitate soluble in alcohol, but insoluble in ammonia. It combines with acids and forms salts, which all present some shade of red, crimson or scarlet, of great intensity and beauty. The salts are soluble in water and alcohol, and form red colored solutions of great beauty. The muriate and the acetate are peculiarly pungent and acrid. When the salts of sanguinarina, prepared with diluted acids, are decomposed by potassa, ammonia, lime or magnesia, the vegeto-alkali is obtained in an unaltered state. But, if the salt has been prepared with concentrated acid, the decomposition is not complete, but a dark purple precipitate is formed which appears to be a sub-salt.

The experiments of Dr. Dana have been so far repeated as to confirm his principal statements, of the characters of this new alkaline principle. The subject is one which merits further elucidation, and we wait with impatience for the publication of the researches of Dr. Augustus Hayes, who was engaged in these inquiries at the date of Dr. Dana's publication in 1827.

The medicinal properties of sanguinarina have been carefully investigated by Dr. Tully, an eminent practitioner of New Haven, Conn., who attributes to it the virtues of squill, seneca, digitalis, guaiacum, and ammoniacum.

The leaves are said by Dr. Downey to be in use by the farmers in Maryland, in diseases of horses, to make them sweat, and Dr. B. S. Barton says the seeds are violent narcotics, resembling those of stramonium in their properties.

The plant belongs to the natural order of papaveraceæ, and possesses the leading properties of that order.

The United States Pharmaco-

pœia directs a tincture made with four ounces of the bruised root, to two pints of alcohol, the dose of which is a small teaspoonful.

Dr. Bigelow says, that many physicians prefer an infusion made with a drachm of the powder to a gill of water, a table spoonful of which is a dose.

It is said to form the principal ingredient in Rawson's bitters, which have gained much celebrity as a remedy in jaundice. The root loses much of its acrimony in drying, and should therefore be frequently renewed in the shops, where it has become a regular article of sale.

III.

ON TIC DOULOUREUX.

By SIR HENRY HALFORD.

AMONG the Essays and Orations lately published by the distinguished Baronet, the first (not previously printed) is on Tic Douloureux, in which some peculiar doctrines are broached respecting the pathology, or rather the etiology of that terrible disease. The principal symptoms are enumerated in Sir Henry's usual elegant language, but these we may pass over. The experienced author believes that the milder forms of tic, usually denominated neuralgiæ, and seated in various nerves of the body besides those of the fifth pair, generally depend on some derangement of the digestive organs, and usually give way to treatment directed to those sources; but the severe tic of the trigemini does not yield to any particular treatment with which we are yet acquainted, though it may be mitigated by attention to the general health. That the seat of pain is not the seat of disease, is proved by the failure of