is one of the largest and most valuable of our timber trees, growing rather rapidly, and producing an abundance of straight-grained, rather coarse, but very durable wood. The ripe fruit or nut is well known. The official description is as follows: "From six to ten inches (15 to 25 cm.) long, about two inches (5 cm.) wide, petiolate, oblong-lanceolate, acuminate, mucronate, feather-veined, sinuate-serrate, smooth, odor slight, taste somewhat astringent." Doubtless other species of chestnut leaves have the same composition and might with equal propriety be used. Nothing peculiar has been found among the constituents of chestnut leaves; nine per cent. of tannin, *resin*, and a number of mineral compounds in the ash, are the principal things observed.

Their use is entirely empirical. The leaves for a good many years have had a popular reputation for the relief of whooping-cough, and within the last ten or fifteen years have been considerably used in its treatment by physicians; their value for this purpose is, to say the least, uncertain. Sometimes there appears to be a marked decrease in the number and severity of the coughing spells; at others no effect is produced. They are not put to any other use. The fluid extract is official, the dose being 2 to 8 c.c. (fl. ʒ ss.–ij.).

W. P. Bolles.

CHEWSTICK.—The stems of *Gouania Domingensis* (fam. *Rhamnaceæ*). This is a beautiful woody climber, growing both wild and cultivated in the West Indies, and other parts of tropical America, whose stems are used there as tooth-brush and powder combined. These stems are very tough and fibrous, and when cut in short-ish pieces the ends are chewed until a rude, stiff brush is formed, with which the teeth are rubbed; a pleasant saponaceous froth of an aromatic bitter taste is formed in the operation, and the teeth are said to be whitened and the gums hardened by it. A tincture and powder are proposed as dental remedies. Internally, it acts as a mild aromatic bitter, and is used in its home as a constituent of small beers. Manufacturing houses offer a fluid extract, the dose of which is 4 to 8 c.c. (fl. ʒ i.–ij.).

Henry H. Rusby.

CHEYNE-STOKES RESPIRATORY PHENOMENON.
See *Dyspnœa* and *Respiration*.

CHICAGO, ILL.—A city of a million and a half or more inhabitants, situated upon the west shore of Lake Michigan. Its climate, although a very variable one and subject to sudden changes, with excessive heat or cold and increased humidity, is not an unwholesome one; and the death rate from consumption along the west shore of the lake is less than farther inland. According to Dr. John A. Robinson * the physiological effect of the lake climate is to promote physical activity and mental vigor, and to increase bodily nutrition. "Persons," he says, "who have been predisposed to pulmonary tuberculosis have enjoyed robust health in this climate so long as they have avoided its bad features and observed other precautions." The favorable features of the climate, as Dr. Robinson gives them, are: first, air in motion, the winds sweeping down into the dark corners of the streets and alleys, and whirling the filth into the highways where the rain and sunshine disinfect it; these winds act as great atmospheric purifiers. Second, the lake purifies the air as it blows from its surface toward the land. Third, the large amount of sunshine. "Observations for several years," continues Dr. Robinson, "prove that the monthly mean of cloudy days is about ten a month; which means that the sunshine is present about two-thirds of the time." From the accompanying climatic table it will be seen also that the number of clear and fair days is two hundred and fifty-seven a year.

CLIMATE OF CHICAGO, ILL.—LATITUDE, 41° 52′; LONGITUDE, 87° 38′. PERIOD OF OBSERVATION, THIRTEEN YEARS.

Data.	January.	April.	July.	Year.
Temperature (Fahr.)—				
Average or normal	25.8°	45.4°	72.3°	48.8°
Average daily range	14.9	14.3	14.3	
Mean of warmest	32.6	54	80.1	
Mean of coldest	17.7	39.7	65.8	
Highest or maximum	65	83	99	
Lowest or minimum	−20	17	50	
Humidity—				
Average or relative	76%	66.5%	70.6%	70.8%
Precipitation—				
Average rainfall in inches	2.04	3.65	3.96	37.58
Wind—				
Prevailing direction	S.W.	N.	S.W.	S.W.
Average hourly velocity in miles	9	9.5	7.1	8.4
Weather—				
Average number of clear days	7.8	8.1	12.9	108.5
Average number of fair days	12.9	12.2	12.5	148.6
Average number of clear and fair days	20.7	20.3	25.4	257.1

The authority above quoted does not think the Chicago climate contraindicates the establishment of a sanatorium, in the vicinity, for the treatment of curable cases of consumption. "At any rate," he says, "the climate in the lake region affords as good an opportunity as the climates of England and New England." For a statistical account of the Chicago climate one is referred to "The Climate of Chicago," by Professor Hazen, 1893, of the Weather Bureau, published by the United States Government.

Edward O. Otis.

CHICHANCANAB.—Yucatan, Mexico. The water of this lake is perfectly clear and very bitter in taste. It deposits crystals similar in appearance to those of magnesium sulphate.

N. J. Ponce de Léon.

CHICHIMEQUILLAS.—Querétaro, Mexico. Nothing much is known of these waters. The laity recommends them in cases of rheumatism, leprosy, and disorders of menstruation.

N. J. Ponce de Léon.

CHICHIPICO.—Puebla, Mexico. This is a lukewarm-sulphureted calcic water. Although there are no bathing facilities at this spring, many people take the baths, as they are highly recommended by local physicians, for the treatment of rheumatism and nervous disorders.

N. J. Ponce de Léon.

CHICKENPOX.—(Synonyms: Varicella, Crystalli, Swinepox; Fr., *La Varicelle;* Ger., *Wasserpocken.*) Chickenpox is an acute, specific, infectious fever, characterized by successive crops of vesicles distributed over the entire surface of the body, which disappear, in from four to seven days, by desiccation. It is the mildest and least important of the eruptive fevers.

The belief, formerly generally entertained by the profession, that varicella is not an independent affection but a modified variola, is now abandoned, save by a few clinicians who follow the teaching of Kaposi and the Vienna school. The proof of the non-identity of the two diseases is overwhelming.

Varicella, like the other members of the exanthematic group, is due to a specific virus, or poison, the nature of which is unknown. It is pre-eminently a disease of early life. It affects babes at the breast, attains its maximum frequency about the fifth year, and is rarely met with after the tenth year of age. It rarely occurs a second time in the same individual. Adults enjoy special immunity from the disease, even when unprotected by an attack in childhood.

Sporadic cases of chickenpox are sometimes observed, but it usually prevails as an epidemic. It is highly contagious, and few children who are susceptible to its influence escape when exposed. Many authors affirm that inoculation with the contents of the vesicles yields negative results, but Steiner and others have repeatedly reproduced the disease in this way. The period of incubation in these experimental cases is about eight days, but when the disease is transmitted in the ordinary manner it is longer and more variable, running from ten to seventeen days.

Prodromal symptoms are not infrequently wholly absent, the appearance of the eruption giving the first indication that the child is ailing. When present, they rarely last longer than twenty-four hours, and are such as usher in mild febrile attacks, namely, anorexia, lassitude, general bodily discomfort, chilliness, and slight elevation of temperature.

The initial fever is mild, seldom measuring more than 101° F., and the constitutional disturbances are correspondingly slight, but in exceptional cases they may be as severe as those which commonly attend mild attacks of the other eruptive diseases. The eruption follows promptly on the first increase in temperature, and in a few hours attains its full development. Small hyperæmic patches resembling roseola spots first appear and are speedily followed by vesicles. When fully formed, the eruption consists of perfectly transparent vesicles, more or less abundantly scattered over the body, globular or ovoid in form, and varying in size from a pinhead to a split pea, or even larger. They are unicellular in structure, collapse when pricked, and leave behind no swelling or elevation of the skin. A distinct areola may or may not be present.

The wall of the vesicle, formed by the outer layer of the epidermis, is very thin and easily broken.

When the eruption is abundant the body, as well described by Dr. Gregory, presents the appearance of having been exposed to a momentary shower of boiling water, each drop of which has produced a small blister.

The eruption appears first upon the trunk, and spreads irregularly over the entire body. It is most abundant upon the back and breast, and least so upon the face, where it is usually limited to the forehead. The scalp nearly always exhibits a full crop of eruptions, which, protected by the hair, maintains its physical integrity longer than in any other location, and thus renders valuable aid in diagnosis. The eruption is never confluent.

The occurrence of two, three, or more successive crops of eruption, each running an independent course, constitutes a striking and unique feature of varicella. Between the vesicles first formed new roseola spots appear, and soon ripen into fully developed vesicles. Thus, newly formed vesicles may be seen side by side with others in all stages of development, even to advanced desiccation. The irregularity in the course and development of the eruption is an important point in the diagnosis of the disease.

The mucous membranes are often implicated. The tongue, buccal membrane, and the mucous surfaces of the genital organs, especially in girls, are favorite sites for the formation of vesicles. In these locations the vesicles soon lose their epithelial covering, and leave small, round, superficial ulcers resembling the ulcers of herpetic stomatitis.

If unbroken by accident or by the scratching of the child to relieve the itching so generally present, the vesicles remain until the third day without change, when their contents become cloudy and desiccation begins.

At this stage a few scattered pustules may be observed, but these are purely accidental and not essential features of the disease. The vesicles begin to dry up in the centre and form thin, brownish-yellow crusts, which soon become detached. Faint red spots remain, which pass away in a few days, and carry with them every trace of the eruption; but very exceptionally depressed, slightly pitted cicatrices permanently mark the seat of a few of the vesicles.

Mr. Hutchinson has called attention to the gangrenous ulcers which sometimes, though rarely, complicate chickenpox in feeble, ill-nourished infants. In these cases a greater or less number of vesicles, instead of pursuing the ordinary benign course, become gangrenous, increase in size, and form black scabs of one-half to one inch in diameter, surrounded by dusky red areolæ. The ulcers heal slowly. In fact this condition may result fatally in infants whose constitutions are depraved by inherited taints or bad surroundings. It is not peculiar to varicella and is described on other pages of the HANDBOOK under the name of Varicella Gangrænosa.

The varieties of chickenpox described by authors under the names of *Varicella lenticularis*, *Varicella conoides*, and *Varicella globata*, based on the various shapes assumed by the eruption, may be wholly ignored, since in every well-marked case vesicles answering all of these descriptions are abundantly found. In fact this variability in size and form of the typical varicellar eruption is a characteristic feature of the disease. The prognosis is always favorable.

Erysipelas is the most serious, though a rare complication. Holt has met with three fatal cases.

Henoch and others have reported cases of nephritis occurring both as complications and as sequels. Varicella is not infrequently complicated by other infectious fevers. The combination of scarlatina and varicella has been often observed.

Varicella derives its chief importance from the liability of inexperienced or careless diagnosticians to mistake it for smallpox, or *vice versâ*.

In variola, or well-marked varioloid, the physiognomy is so distinctive as almost to preclude the possibility of error. But in exceptional cases of varioloid the constitutional symptoms are so mild and the eruption so rudimentary and irregular that a careless examination will not suffice to distinguish them from the graver forms of varicella.

For two years or more an unusually mild form of variola has prevailed extensively throughout the country, especially in the South and middle West. The mortality has been almost *nil*. In 2,819 cases recorded in Ohio up to January, 1900, the death rate was 1.4 per cent. During most of the time varicella has been epidemic in a part of the same territory, which with the exceedingly mild type of variola has given rise to much confusion and many mistakes in diagnosis.

Time will always clear up the diagnosis, but in the meanwhile the reputation of the physician and the safety of the community may be seriously compromised.

The absence of prodromal manifestations, the short initial fever, the rapidity and irregularity with which the eruption spreads over the body, the globular, non-umbilicated, transparent, unicellular vesicles, the absence of a distinct pustular stage, and the successive crops of eruption, which show roseola spots, vesicles, and crusts in close proximity, will rarely give room to hesitate in the presence of chickenpox.

While any case of varicella may present an occasional vesicle slightly umbilicated or with purulent contents, due to accidental causes, the fact that this appearance is only exhibited by a few scattered vesicles, and is not the predominating character of the eruption, will suffice to establish the diagnosis.

It is well to bear in mind that a vesicular eruption which occurs in a child over ten or twelve years of age, and especially in an adult, is open to grave suspicion. The writer cannot, however, agree with those authors, by no means few in number, who maintain that varicella never occurs in the adult. He can recall three cases in adults, all females, which have come under his observation.

Varicella is a self-limited disease and needs but little treatment.

Light diet, cooling drinks, a gentle aperient, and confinement within doors while the fever lasts, is all that will ordinarily be required. To prevent the infection of other children isolation should be maintained until the crusts have fallen.

W. J. Conklin.

CHICK'S SPRINGS.—Greenville County, South Carolina.

POST-OFFICE.—Greenville. Hotel and cottages.

ACCESS.—Viâ Atlanta and Charlotte Air-Line (Southern

* North American Practitioner, Chicago, 1897, ix., pp. 296–298, "Chicago as a Health Resort."

Railway system), to Taylor's Station, 10 miles from Greenville. thence 1 mile to springs.

Chick's Springs are located in a broken, rugged country, about 1,200 feet above the sea level. Paris Mountain, a spur of the Blue Ridge, is only three or four miles distant. The climate of this region is very salubrious and well adapted for pulmonary cases during the winter months. The air is dry, and clear weather with invigorating breezes the rule. The resort has had a wide reputation in the South for many years, but owing to the destruction of the hotel by fire it has not been open to the public until two or three years since, when the present owner built a small hotel and several cottages. A large, new hotel is projected, which, with other improvements, will bring the place up to its old standard of excellence. The springs are two in number, known as the "Iron" and the "Sulphur" Springs, and are about one hundred and fifty feet apart. The following analysis by Dr. Charles U. Shepherd, of Charleston, was sent to us by Mr. Julius C. Smith, of Greenville:

ONE UNITED STATES GALLON CONTAINS:

Solids.	Grains.
Calcium sulphate	32.57
Magnesium sulphate	.63
Sodium sulphate	2.37
Sodium silicate	3.69
Potassium silicate	.31
Silica	.50
Iron oxide	.41
Total	40.48

Carbonic acid gas present in appreciable quantities.

These waters have been found of great advantage in cases of atonic dyspepsia accompanied by hepatic congestion. They are also useful auxiliaries in Bright's disease of the kidneys. *James K. Crook.*

CHICORY.—*Cichorium.* The root of *Cichorium Intybus* L. (fam. *Cichoriaceæ*). A perennial, milky-juiced, European herb, with dandelion-like leaves and tall, sparsely branching stems, bearing large, delicate, bright blue flowerheads. It is very abundantly naturalized in this country, along roadsides, and is also extensively cultivated both here and abroad. The root is fleshy and branched, very much like that of dandelion when dry, but rather larger, and deficient in regard to the bright yellow woody ring so distinctly seen in the cross section of dandelion. It is grayish brown externally, whitish within, generally odorless, and but slightly bitter. The cultivated root is larger and darker than the wild. It occurs in commerce mostly cut into halves and quarters of transverse sections, and is heavily wrinkled in drying. The leaves, which are somewhat employed as a salad, are irregularly pinnatified, with a large terminal and small lateral segments. They resemble lettuce in taste, but are more bitter.

The roasted root is very extensively used as an adulterant of, or addition to, or substitute for coffee, and this use is steadily increasing. In some European countries, especially England, it is generally assumed that the customer desires the addition of chicory unless he directs otherwise. To the natural taste, it imparts a bitter and nauseous flavor to the beverage, but this, by custom, becomes tolerable or even agreeable.

Chicory is scarcely entitled to rank as a medicine, although it is laxative and about similar to dandelion in its effects. The root contains *inulin*, like many others in the order, *bitter extractive*, and *sugar*. The flowers contain a peculiar glucoside. *Henry H. Rusby.*

CHIGOE.—SYNONYMS.—Besides the classical terms *Pulex penetrans*, *Dermatophilus*, *Rhynchoprion penetrans*, and *Sarcopsylla penetrans*, this troublesome tropical parasite is known by the following names: aagrini, atten, bicho, bichos dos pes, chego, chegoe, chegre, chica, chico, chicque, chigga, chigger, chiggre, chigo, chigoe, chigua, chique, ckicke, earth-flea, jatecuba, jigger, migor, nigua, pico, picque, pigne, pigue, pique, punque, sand-flea, sandfloh, seccec, sico, sike, sikka, siko, tchike, tom, ton, tschicke, tschik, tschike, tû, tunga, tungay, xique.

ETYMOLOGY.—*Chigoe* is supposed to be derived from the Spanish *chiquito*, small.

For natural history, classification, anatomy, etc., see article *Insects*.

GEOGRAPHICAL DISTRIBUTION.—The chigoe is confined exclusively to the tropics, and is probably indigenous to South America. It is most prevalent in the West Indies, and Central and tropical America, its bounds being about 30° of latitude North and South. Within these limits it is certainly very common indeed, and for its size is the most troublesome of all the tropical pests. Till about twenty-five years ago it had never been known out of the Western hemisphere, save for a stray case imported into Europe from South America or the West Indies (one such case is elaborately reported by Laboulbène); but in 1872 or 1873 it was found in tropical Africa, and within the last decade it is said to have reached South China.

Probably it will be found all over the tropics. It is most abundant in the dry sandy soil, and in the parts near the sea; also in pens, stables, and in the dust, ashes, etc., of neglected, unswept houses. Negroes are chiefly affected, and those who work or go about with bare feet, and are not accustomed to hygienic surroundings and conditions. Europeans and newcomers suffer the most, but probably because the older residents know what trouble these little pests can give, and have learnt from experience to appreciate the first signs of the presence of the parasite. Women and children with their thinner and more delicate skin suffer very much. Soldiers have been attacked by these tiny parasites and have been discomfited if not routed by them. "It is stated that as early as 1538 a division of Spanish troops was disabled from marching by swarms of the parasite settling in their feet. In recent times the French troops under Bazaine, in the Mexican expedition, had the same unfortunate experience" (Hirsch).

Short Description.—The chigoe is a parasite of the "flea" tribe; it is smaller than the flea, but has a larger head. It attacks birds, warm-blooded animals both wild and domestic, as well as the human subject. The male and immature female are both free parasites, obtaining their board and lodging wherever they can, but on impregnation the female seeks a host. It is the impregnated female that causes all the trouble, and it is to her alone that we refer in the present article. With its head the chigoe bores into the skin, going obliquely through the epidermis; it then enters between the epidermis and dermis, and burrows down into the latter, but probably never goes deeper; from the capillaries of this region it obtains its food supply.

Parts Affected.—All portions of the body are liable to attack, but the chigoe exhibits a decided preference for the feet. These are nearly always involved, especially under and around the nails, and in the digito-plantar fold. The insertion of the tendo Achillis is another favorite place. The dorsum of the foot is very seldom involved. Next to the feet, the scrotum, prepuce, corona glandis, axilla, arm, forearm, palm of hand, lower eyelid, cheek, neck, elbow, and knee are places of predilection; and as the feet and genitals are oftenest attacked, the question has been raised as to how far the chigoe is attracted by the odor of those parts, especially in the uncleanly. As a rule only one or a few chigoes are found, but Bonnett reports a case in which he found no fewer than three hundred in one person. It has also been stated that the chigoe likes to effect an entrance either near to another chigoe, or into the very spot which another chigoe has previously occupied; the neighborhood of an ulcer produced by her comrades is also attractive to the chigoe.

CLINICAL COURSE AND SYMPTOMS.—Three stages have been described, but ordinarily only the first two are observed; and if proper care be bestowed the trouble is limited to the first stage.

1. *Period of Invasion.*—This lasts for from twenty-four to thirty-six hours, and is marked by itching and tick-

ling, due to the perforation of the skin. The sensation, which at first is not very definitely localized and sometimes is a little way from the actual seat of the trouble, is rather pleasant than otherwise; and many people have been known to keep the insect for a day or two before extracting it. The pain or discomfort is intermittent; but as the sac with the eggs increases in size it presses on the neighboring tissues and gives rise to a slight pain, which later becomes dull and throbbing and increases in intensity. At first there is nothing to be seen, but as the sac grows there can be observed a small spot, black or dark blue in color, and somewhat deeply set in the skin which at this stage is hardly raised. If the trouble be near a nail (as it is very apt to be) inflammation will soon follow unless the sac be carefully extracted. In delicate people even one chigoe will cause lameness and hinder walking.

2. *Period of Inflammation.*—If the insect be allowed to remain in the tissues, or the sac be ruptured and some of the eggs remain, inflammation ensues, the intensity of which depends on the thickness of the skin and the richness of its vascular and nerve supply. If the skin is thick, there are pain, very little heat or redness, and little or no swelling; in other cases there are considerable pain, heat, and redness, and a serous fluid is present. If there are several parasites with well-developed sacs, the degree of inflammation is very great, and there is the possibility of further trouble. This second stage lasts for four or five days, sometimes longer; the inflammation only ceasing on the extraction of the chigoe.

3. *Period of Ulceration.*—If the part be still neglected and the inflammation remain unchecked, a large ulceration occurs; the vessels may become obliterated, and gangrene is a possible result. Ulceration is very common when several chigoes are present in close proximity: and the union of several small ulcers gives a very ugly sore. The ulcer is characterized by red, scalloped edges, grayish base, and thin fetid pus which may separate the epidermis from the dermis. These ulcers are apt to spread along the surface, and in very severe cases the skin is destroyed, subjacent structures are denuded, tendons laid bare, phalanges may be necrosed, and toes drop off. This is exceedingly rare, and we believe that the severe symptoms attributed to this stage have been exaggerated.

PROPHYLAXIS consists in personal cleanliness, particularly in constant bathing of the feet. Avoid sleeping on the ground, and do not go barefooted. Keep socks and bedroom slippers off the floor when not in use. See that rooms are swept and floors sprinkled. Some people use a pungent essential oil to keep away the insect, the natives employing an infusion of tobacco leaves for this purpose.

TREATMENT.—There is but one method that can be recommended, and that is careful extraction of the sac at the earliest possible moment. On the first itching sensation a search should be instituted for the insect, which when found should be at once dislodged. This is best accomplished with a sharp needle, which should be sterilized by passing through a flame, and then carefully inserted in the opening made by the chigoe, and passed round the sac, separating it from the tissues, and when thus loosened it can be extruded. Great care must be taken to avoid breaking the sac and scattering the eggs. If unfortunately this should occur, wash out the débris with water (sterile if possible) or a mild solution of bichloride of mercury. If the skin is very thick an incision may be necessary. The negresses are skilful in "echiquage" (as extraction of a chigoe is termed), but it is very necessary to see that they employ a surgically clean needle. If a dressing is considered necessary, a three or four per cent. solution of carbolic is as good as any. If the wound is large and intractable to ordinary treatment, you may have to curette and treat as any other fresh wound. Care must be taken to prevent the entrance of any pathogenic bacteria. Inflammation is treated in the usual way. If ulceration has occurred, chloroform liniment or mercurial ointment can be employed; and in the very worst cases, and those badly neglected, amputation may be necessary. *R. J. E. Scott.*

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CHILBLAIN. See *Dermatitis calorica.*

CHILDHOOD.—In the arbitrary division of life employed for purposes of description or discussion, childhood includes the period from the end of the second year to puberty. The material for our consideration, therefore, includes all the phenomena that belong to the human organism in its progress from the conditions prevailing at the end of the second year of life to those of maturity.

Naturally at the outset of this period the organism, both in conformation and in function, corresponds closely to the infantile type, yet it has progressed sufficiently far to exhibit in some degree nearly all the powers that belong to the fully developed organism. No essentially new powers are developed until the concluding years of the period introduce the changes incident to puberty.

At the end of the second year the body still maintains many of the infantile characteristics. The head is large in proportion to the size of the body, its circumference being about nineteen inches; the trunk is large in proportion to the extremities, the general outlines are full and round. The child at this age, however, has attained such a degree of muscular co-ordination that he is able to stand, walk, or run, and to use the hands freely. The special senses are all awakened to a degree, and he has acquired a certain small store of experience, is constantly adding to that store, and in a feeble way reasoning upon the results of it. The same development from the condition at birth, which is so especially notable in the case of the brain and nervous system, is also to be observed in the other organs of the body. The lachrymal glands are very active, the mouth has filled with teeth, the salivary glands have assumed their functions, the stomach and intestines are possessed of increased digestive power, and the eliminative functions of the kidneys are more in evidence. A more detailed consideration of some of the anatomical and physiological peculiarities of childhood will be in order.

The Skin.—The superficial area of the body in childhood relatively to the size and weight of the body is much greater than in adult life. Changes in the condition of the skin have, therefore, a relatively greater influence in the earlier years. Children react to cold or hot applications to the surface of the body very quickly and markedly. Hydropathic treatment must therefore be carried out very carefully, and the length of exposure to either heat or cold regulated by the effect upon the general condition. Under proper regulation we can expect more marked and lasting effects from such measures in children in an inverse relation to their age. Thus simple sponging of the surface of the body with cold water or the application of a cold pack may be quite sufficient in a child to produce an effect which in an adult would require a prolonged cold bath.

The sensitiveness of the child to sudden changes of the temperature of the body should not be lost sight of in considering the questions of hygiene. The surface of the body should, as a rule, be protected, even in summer. The exposure of the neck and chest, arms and legs of a delicate child—often resorted to by mothers in the belief that it will "harden" the child—is much more likely to result in weakening it or even producing definite and severe illness.

Except in the hottest part of summer flannel or wool should be worn next the skin, and whenever it is dispensed with, particular care should be exercised to prevent sudden chilling of the surface of the body. Proper