differ from fractures of other portions, for repair may take place here as in other portions of the cranium. If the patient survived long, union would probably take place, although slowly. According to Hewett, in some cases, even after months and years, no trace of union of the fragments could be found. In others the line of fracture was found partly united by dense fibrous tissue and partly by a thin layer of inlaid bone, while in others bony union was perfect. In some instances of bony union there was an excessive formation of porous bone, it being heaped up along the line of fracture. Usually, however, the injury to the brain results fatally. It is hardly possible for an amount of violence sufficient to produce fracture of the base to fail to produce concussion, laceration, or compression of this, the most delicate part of the brain. As in fractures of other portions of the skull, the prognosis depends almost entirely upon the amount of injury to the brain. Bryant, however, reports a series of thirty cases, with twelve recoveries. In these twelve the injury to the brain consisted of simple concussion."

The importance of a fracture of some part of the skull is subordinate to the importance of the presence or absence of compression symptoms. Along with a simple fracture of the vertex may happen a rupture of some vessel, and the formation of a clot of such size as to determine a fatal ending; on the other hand, we may have a compound comminuted fracture with a minimum of compression or of cerebral disturbance. We need, then, to diagnose the intracranial lesions with greater exactness, if possible, than those of the bone. For the diagnostic signs and symptoms of compression, the reader is referred to the article "*Brain, Compression of*" (Vol. II.). When after injury to the head such evidences of compression are noticed as are there detailed, no matter whether they appear at once, indicating depressed bone, after a few hours, as from a blood clot, or after a few days, as when caused by pus resulting from purulent meningitis, then there is sufficient justification for exploration, and this usually means the employment of the trephine.

After all, in theory at least, it is not difficult to decide on the appropriate course in a given case. In cases of concussion without serious external lesion, we are called on to do but little. If a scalp wound be present, it should be first utilized for purposes of exploration and then closed, as already advised. In cases of contusion of the brain, unless external indications are sufficient, we must pursue a tentative policy. Later, if circumstances call for it, the trephine may be employed. But in cases of distinct compression the trephine is almost always indicated. To be sure, its proper application may call for anatomical knowledge of the construction of the brain of high order; nevertheless, this is no contraindication to operate, it simply calls for expert skill.

American surgeons are now almost a unit on the subject of early trephining, or what may be called the early exploratory use of the trephine. They hold that, inasmuch as the operation is *per se, when properly (antiseptically) performed*, one of very small danger, we are likely to gain more than we shall lose by employing it for purposes of exploration when in doubt. Personally, the writer thoroughly believes in and advises operation when it seems as if any benefit, either in a diagnostic or in a therapeutic way, may be gained. But before finally deciding on instrumental interference, valuable hints may be gathered from external incision and exploration. The indication for the trephine may be in this way placed beyond the limits of doubt. The writer would then advise, in all but the most plain and typical cases, the following order of procedures in cases of serious injury to the head:

1. Careful external examination and consideration of the general condition of the patient.
2. Exploration with the finger by means of suitable incisions, provided the cerebral condition be other than manifest concussion.
3. Exploratory or therapeutic use of the trephine according to the revelations of the second procedure, or when concussion and contusion symptoms give way to those of compression.

Twenty-five years of experience have impressed upon the writer this lesson: *When in doubt as to the wisdom of trephining, operate.* The case that admits of serious doubt will be safer if operated than without an operation. This is the same rule which I follow in appendicitis; it represents the truest conservatism. Delay in doubtful cases is hazardous, dangerous.

Guided by this aphorism, it would seem as if the practitioner should be much less likely to err than when actuated by the teaching of a certain past era, and of men who are passing away, that the trephine should never be used unless its application seems, even to the novice, plainly and unmistakably necessary.

For the details of the operation the reader is referred to the article under the heading *Trephining*.

Wounds of the Orbit.—Those involving the eye or its adnexa are discussed under *Eye, Injuries of;* while those which do not injure the globe are to be treated on the general principles already laid down. We would simply remind the practitioner that, in case of a penetrating wound of the orbit of this character, there is necessity for providing adequate drainage; otherwise pus may infiltrate or burrow into localities where its presence would be most undesirable.

Wounds of Intracranial Vessels and Sinuses.—These most often involve the longitudinal and transverse sinuses and the middle meningeal artery. Wounds of these channels have also occurred during the operation of trephining, and have not been fatal; in fact, in more than one case the effect was rather that of a venesection, and was consequently good. If, by a small punctured wound, a superficial sinus be penetrated, an antiseptic compress may be sufficient to check bleeding; over this an ice-cold application should be made. The cases are numerous in which recovery has followed this simple measure. Death is unusual in such cases, and results rather from other complications, such as injury to the brain, partial escape of blood into the cranial cavity, septic processes, or air embolism. Volkmann has lost a case by entrance of air into a sinus during extirpation of a sarcoma from the bone and dura mater. But under most conditions this would not happen. Wounds of the cavernous sinus through the orbit have always been fatal.

A splinter of bone or a foreign body having perforated a sinus wall, the blood may escape at once or only after its removal. These cases are very rare. Hemorrhage may be checked by antiseptic tampons with ice applications, or the sinus walls may be sewed together with fine catgut or silk, as was first done in one notable case by Dr. C. T. Parkes. Provided they do not prove rapidly fatal, these sinus wounds usually heal well, with only a thickening of walls; but entire obliteration of the channel, should it occur, would be of no great import, as Schellmann's researches have proved. The principal danger comes from softening of thrombi.

Wounds of the middle meningeal artery may be recognized sometimes by the supervention of compression symptoms, even though there be no external lesion indicating them. Among causes of the injury may be mentioned: a direct wound by some sharp object; laceration by projectiles or bone spicula; rupture by changes in relative situation of neighboring bones; rupture without fracture of bones, occurring especially on the side opposite the injury. Rupture having occurred, commotion may retard the formation of clot, but it will form sooner or later. It may even putrefy without visible exposure to the air.

Symptoms of this accident are: An interval of consciousnsess following injury before supervention of somnolence, sopor, and coma—these are sometimes preceded by irritation symptoms, and the compression symptoms may occur at any time after hemorrhage begins, from fifteen minutes up to eleven days; hemiplegia on the side opposite the injury, the artery being right over the motor centres for the opposite arm and leg; changes in

the pulse (infrequency and hardness); slow, embarrassed, stertorous respiration; vomiting; loss of reaction to light of the pupil on the same side as the clot; occasional unilateral impairment of sensation; aphasia; disordered bladder and rectum; rise of temperature. If the first four of these symptoms be present, the diagnosis may be regarded as sufficiently accurate to justify operation. The gradual supervention of aphasia indicates extension of the clot anteriorly, disorders of sensation its extension posteriorly, while paralysis of the third pair means that it has extended toward the base of the brain.

Numerous cases of penetrating wounds with lesion of this vessel have been reported. Not infrequently it has required a ligature during removal of fragments after severe injury. During our Civil War the common carotid was seven times ligated for this same purpose, with three recoveries; while now, twenty years later, probably no competent surgeon would hesitate to trephine over its course. A case of Parker's will be instructive in this connection. In this there was no external wound of soft parts; nevertheless he trephined over the artery on one side, but found no lesion; he then trephined over the artery on the other side, but finding no coagulum outside the dura, and noticing that this was discolored and distended, he incised it and removed a considerable amount of blood. In three days the patient became conscious, and afterward quickly recovered.

Symptoms of compression, supervening with varying rapidity, not improbably without external wound, require exploration by means of the trephine, the operation of trephining, with proper antiseptic precautions, being by no means a serious or hazardous one. In trephining with the purpose of finding the artery in question, the point of the instrument should be applied an inch and a fourth to an inch and a half back of the external angle of the orbit; otherwise the instrument should be kept away from this spot. It should be borne in mind that sometimes the vessel lies in a very shallow groove on the under side of the bone, sometimes in a deep groove, and sometimes in a complete bony canal. The instrument must, therefore, be worked with gentleness and care (*vide Trephining*).

If a satisfactory cause of the compression be not discovered on one side, it will be well to take a hint from the case mentioned above, and, remembering the possibility of rupture by *contre-coup* and lesion of the vessel on the other side, to explore there also. Certainly cases of compression are usually desperate enough to justify any search which may reveal the cause and permit its removal.

Wounds of vessels in the brain call for treatment only when diagnosed, and the circumstances which permit diagnosis will also at once indicate the proper thing to do. Could hemorrhage in the subdural space be diagnosed, it would be good practice to trephine, open the dura, and wash out the extravasated blood. One such case was reported during our Civil War (Gross: *Am. Jour. Med. Sci.*, July, 1873).

Injuries to the cerebral portion of the internal carotid are much rarer than those to the meningeal. Longmore relates how a bullet penetrated, in one case, through the orbit into the petrous bone and lodged there, leading later to erosion of this vessel and fatal hemorrhage. Some injury of this kind might, if not rapidly fatal, lead to the formation of an arterio-venous aneurism, calling for ligation of the common trunk.

Wounds of Cranial Nerves.—The treatment of injuries to these nerves cannot be other than symptomatic. Should a depressed fragment or a foreign body press upon a nerve trunk, removal of the same would meet the principal indication, and, provided the injury were not too severe in other respects, the nerve might regain some or all of its function. Sometimes, after bruising or contusion of a terminal branch, *e.g.*, the infraorbital, there will ensue so violent a neuralgia as to call for section or exsection of the nerve on the proximal side of the injury. If it be certain that a nerve trunk outside the cranium has been severed, and if the locality of the lesion be reasonably accessible, it would be good practice to cut down upon it and unite the severed ends with a fine catgut suture.

Wounds of Brain Substance.—Since these are by necessity complicated by those of external parts, we can draw no abrupt therapeutical distinctions. Obviously, if antiseptic measures are indicated for more superficial injuries, they are vitally essential here. The majority of these wounds are inflicted by firearms, and we wish here to emphasize what is elsewhere in this Handbook detailed, viz., the futility—nay, even the homicidal effect—of careless or ineffectual probing for bullets. From time to time in current literature the writer has denounced this practice as vigorously as he could. The array of cases set forth by German military surgeons, in which most dangerous wounds—such as, when treated by old methods of promiscuous bullet-hunting, were surely fatal—primarily and antiseptically occluded, and never probed nor investigated, have gone on to speedy recovery; this array should be most convincing as to the merits of this practice.

Gunshot wounds of the cranial cavity virtually always call for the trephine; but with elevation of depressed bone, attention to bleeding, and smoothing off the edges of the bone wound, the indications are fairly met in the majority of cases. Blood clot is always to be removed, and the source of the hemorrhage attended to; a discolored, pouting dura may justify incision and exploration; while in the effort to remove pieces of bone which have been detached and driven into the brain, the bullet may be found and also removed. But the idea of introducing a probe into the brain through a small penetrating wound of the skull is one which must be abhorrent to every modern surgeon. Random exploration of the brain is never justifiable, and the circumstances which would seem to call for the introduction of the probe through its bony roof would call much more loudly for the use of the trephine. Moreover, many recorded cases prove with what apparent freedom from serious consequences patients may recover with such foreign bodies as bullets in their brains. When circumstances seem to call for a hunt for the missile it may be located with the Roentgen rays, or with the telephonic probe of Girdner, or its equivalent signaling instrument, and when so located it may perhaps be removed by an appropriately planned and perfected operation, done deliberately with every facility at hand, but not otherwise. The safest rule, then, to follow is to *abstain from all operative measures for the removal of missiles when indications are obscure, or such as do not to promise a compensating advantage.*

Traumatic Abscess of the Brain.—By this term is meant abscess formation supervening on injury, as distinct from those cases in which the cause of the abscess is uncertain or unknown. Such traumatic abscesses are more likely to result from gunshot injury than from any other, though they may follow a simple contused wound of the exterior. The symptoms of cerebral abscess, often much resembling those of compression, have already been considered (*vide Brain, Abscess of*). We wish here only to put in a plea, not only for the exploratory use of the trephine when there is good reason to suspect abscess, but of the aspirating needle as well. Should the presence of pus be thus revealed the aspirator should be disengaged, and the needle used as a guide or director upon which to pass a small knife, perhaps a tenotome, and by thus making a freer opening, not only permit escape of pus, but the introduction of a drainage tube and careful washing out of the cavity.

This operative procedure, though bold and radical, is not half so dangerous as to permit the abscess to take its own course, and will fully justify itself.

Hernia or Prolapsus Cerebri.—When from a recent wound, or one of a few days' standing, protrusion of brain substance takes place, it may seem doubtful whether it would be better to excise the protruding mass or to endeavor to repress it by suitable pressure. Of course, the careful practitioner will dress all fresh cases

with such a judicious amount of pressure as shall guard against this condition; nevertheless, he may be called on to treat it after it has occurred. If the hernial mass has begun to slough there can be no question; excision by ligature, elastic or otherwise, or by the knife, must be practised, and hemorrhage carefully watched for and checked. When the mass is small and appears healthy, gentle and continuous pressure, as by an elastic outside bandage, will usually coax back into the cranium that which belongs there. After complete reduction a lead or caoutchouc plate may be adapted to the shape of the part and applied externally as a part of the bandage technique.

An abscess may underlie the hernial mass; this is to be discovered and treated as above.

Adams has reported a case of irreducible hernia cerebri, in which he succeeded in covering the hernial mass with a flap of skin by a plastic operation, and Kusmin has reported another case, similar to it in many respects, excepting that he resorted to skin-grafting.

Purulent Meningitis.—When compression symptoms supervene several days after injury, there is frequently good reason to suspect the presence of pus. This may be in the form of a circumscribed collection, *i.e.*, an *abscess*, which has already been spoken of, or it may mean purulent or suppurative meningitis. This accession of compression symptoms always, or nearly always, justifies the exploratory use of the trephine. Should it prove to mean compression from suppurative meningitis, there is no reason why the arachnoid cavity should not be washed out, but every reason why it should. In other words, it should be treated just as purulent peritonitis is now treated, that is, by washing out and draining the cavity. Recovery will not always follow this procedure, but it will in a fair proportion of cases, which are inevitably doomed if some such measure be not instituted.

Irritative Lesions following Head Injuries.—These are mostly to be grouped under two classes, viz., convulsive (epileptic) and mental disturbances (mania, dementia, etc.). This hardly seems the appropriate place in which to discuss these at length, the pathological lesions being so varied, including depression of the skull, cystic formations, abscess, etc. Nevertheless there is each year a stronger tendency, on the part of advanced surgeons, to explore these cases when any external scar or depression may indicate rudely a point of attack. The element of risk is small, the prospect of at least alleviation sufficiently hopeful, in conjunction with the otherwise hopeless nature of the case, to justify the attempt, and besides, the degree of success attending these efforts is affording more and more encouragement. In cases of this general nature the exact condition is yet, in individual instances, too uncertain to permit of more than general operative directions. Those which have not already been given in this article can be found in their appropriate places elsewhere in these volumes. This paragraph has been made, therefore, suggestive rather than explicit.

Wounds of the Head during Birth.—With reference to injuries to the fœtal head during artificial or natural delivery, it is necessary to add but little. Even large extravasations of blood are usually absorbed; in extreme cases, after waiting a few days, it might be well to incise, turn out the clot, and sew up the edges of the wound. Excoriations and bruises made by instruments need only conventional treatment. Fatal phlegmonous inflammation has been known to result from injury done by forceps; hence the advisability of antiseptic precautions and attention to detail. Symptoms and appearances arising from compression caused by the forceps will commonly subside as the head resumes its shape. Should positive fracture take place, it will probably run its course uninfluenced by therapeutic measures. No hesitation should be felt about surgical intervention in these cases, when otherwise indicated, simply because of the tender age of the infant or child. The prognosis must be based on the amount of injury. *Roswell Park.*

HEALING SPRINGS, ALA.—Healing Springs, Washington County, Alabama.

Post-Office.—Healing Springs. Numerous Cottages.

Access.—Buy ticket to Buckatunna, Miss., on the Mobile and Ohio Railroad, seventy miles north of Mobile; then take hack to springs, fourteen miles east. These springs were discovered in 1870, and have since attained considerable prominence as a health resort. The surface of the country about the springs is broken by high ridges and slopes, and covered by the long-leaved yellow pine. The soil is sandy, and the location has an elevation of about 400 feet above tide water. Like all resorts in this latitude, the winters are mild, the temperature seldom dropping below freezing point. The summers are not exceptionally hot, the mercury almost always sinking to 68° or 70° F. at night. During the recent summer the highest temperature observed was 92° F. The springs are eleven in number, but only four are much used. The "Creek" Spring boils up in the centre of a small stream and flows about eight gallons per minute. It is said to contain lithia, iron, and a trace of arsenic. "Mound" Spring, yielding thirteen and a half gallons per minute, issues from a small mound five or six feet higher than the ground around it. Iron, magnesia, lithia, and sulphur are said to be among its ingredients. "McCarty" Spring, supplying seven gallons per minute, is supposed to contain an acid of some kind and also iron. Its waters are used extensively for chronic diarrhœa. "Scholes" Spring contains iron and sulphur. Many varieties of skin affections, chronic renal diseases, and disorders of the bladder, alimentary tract, and liver are said to receive benefit from the waters of the Healing Springs. *James K. Crook.*

HEALING SPRINGS, VA.—See *Hot Springs, Va.*

HEALTH RESORTS.—A change of climate and environment is one of the most valuable means we possess for the treatment or prevention of disease, and this is also to a large extent true in the thorough use of such climate as exists wherever the patient happens to be,—the home climate. To obtain the maximum benefit from any climate, however, one must live in it, *i.e.*, out of doors; hence the beneficial results from an indifferent climate rigorously utilized may be, and perhaps most frequently are, better than those from a much superior climate only partly made use of. An illustration of this statement is found in the results obtained in those sanitoria for pulmonary tuberculosis which are situated in ordinary temperate climates like Falkenstein, or Rutland, Mass., such results being more favorable than those obtained in open resorts with more advantageous climatic conditions. The use of the health resort should be regarded as a therapeutic measure to be as carefully considered and watched as the administration of a drug. Many climates like many drugs are, and must be, empirically used. We can only try them and await the effect. Asthma is a striking example of this use. Why one climate avails and another not we cannot always say, and we can refer the effect only to individual idiosyncrasy, or to some subtle undiscoverable influence in the resort, or to the morbid state of the patient.

Ease and rapidity of accomplishment are always alluring factors in any undertaking. It is easier to take drugs and keep on in the same accustomed way of life than to make the sacrifice which a change of climate so often entails. Hence the inestimable value of climatic therapeutics remains so largely unappreciated and unused, even by the profession. And, further, there is the obstacle, often insurmountable, of the expense involved in a change of climate. Hygiene, dietetics, hydrotherapeutics, and climate are, and always will be, the principal agents in producing cure or amelioration in a large proportion of diseases, and drugs, after all, are only aids in better applying or restoring to their legitimate place these great natural bulwarks of health.

When a physician advises a change of climate he means that his patient should take up a temporary residence in some place known as a health resort and supposed to possess climatic conditions more favorable for the disease of which his patient is suffering than the climate where he is. Intelligently to prescribe a health resort, then, one must consider: first, the classification of climates and their geographical distribution; second, the value of the various climatic factors and their influence upon the human organism; third, the adaptability of special climates to the treatment of special diseases; fourth, the qualifications other than those of a purely climatological character which should be possessed by a health resort. Various classifications of climate have been made by different authors. Weber's appears to be the simplest. He makes two general divisions: *marine* and *inland* climates.

Under the former Solly makes the subdivisions of ocean, island, and coast climates; and under the latter, of low, medium, and high climates. The ocean climate is obtained by means of sea voyages—such, for instance, as the one to San Francisco, viâ the Isthmus of Panama, or to the Mediterranean, or from England to the Cape of Good Hope or to Australia, or, best of all, when possible, a yachting trip which can be prolonged at pleasure.

The ocean climate is characterized by purity of atmosphere, moisture, and equability of temperature; the impregnation of the air with salt, iodine, and bromine may also be of value. Of course many of the weather characteristics depend upon the latitude in which the voyage is taken. Such a climate is a sedative to the nervous system and a stimulant to the appetite and digestion; it is a *sedative tonic*. A sea voyage is applicable to some forms of tuberculous disease, mental exhaustion from overwork, insomnia, various forms of scrofulous disease, anæmia, and chlorosis.

The climate of small islands sufficiently removed from the mainland is much like that of the ocean, modified more or less by currents and by the configuration of the coast. Bermuda, Block Island, the Isles of Shoals are good examples of island climate.

Coast climates resemble that of the ocean, modified by the land influence. Here we have the land as well as the sea breezes, causing less equability and less constant purity of air. A coast climate is also influenced by the configuration and character of the adjacent land. For example, the Alps influence the climate of the Riviera, giving rise to the cold winds which sweep down upon the coast; the desert influences the character of the climate upon the African coast; the inland desert the littoral of Australia. The Undercliff at Ventnor, by its shelter from land influences, is rendered a more purely marine climate.

Weber also divides marine climates into *humid marine* and marine with *moderate* or *slight humidity*. Moreover, for health-resort purposes, such climates as fall under the above subdivision, and at the same time are warm, are chiefly to be considered.

Of the humid marine warm climates, Madeira, the Canaries, the West Indies, the peninsula of Florida are examples. Such climates exercise a sedative effect upon the nervous system and mucous membranes, and are useful in chronic bronchitis with emphysema, bronchial catarrh, and pulmonary congestion in elderly people without cardiac complications. Of the warm marine climates with moderate or slight humidity, we have the Riviera, the coast resorts of southern California, southeastern Georgia, and Solly also includes Florida under this head. The effect and uses of such climates are practically the same as those of the previous class. All the seacoast resorts of the North may be classed under *cool* marine climates with moderate humidity.

Of the inland climates we have first the low ones, such as Egypt, Pau in France, Lakewood, the interior health resorts in the Southern States, the low plains of Arizona, portions of Texas, and the inland resorts of southern California, such as Riverside and Redlands.

Such climates are also susceptible of classification according to temperature and humidity. Their uses as health resorts are very varied; pulmonary tuberculosis, bronchitis, cardiac and renal disease, gout, rheumatism, are some of the diseases likely to be benefited by a low, dry, warm inland climate.

Medium and high altitude climates can be considered together as the difference is only one of degree. Solly makes the distinction depend upon the amount of altitude; from 4,500 feet up he calls elevated climate. Not alone does the elevation influence the character of the climate, but the latitude, the proximity to the ocean and to mountain ranges, and the configuration of the surrounding country; thus Estes Park in Colorado is comparable with Davos in Switzerland, although the former is 1,000 or more feet higher than the latter. The general climatic characteristics of the mountain health resorts are: a rarefied atmosphere, aseptic air, increased diathermancy, dryness, abundant sunshine, and a comparatively low temperature. The chief peculiarity is the lessened barometric pressure, and upon this feature probably depends a large part of the value of such a climate in the treatment of pulmonary tuberculosis. The purity of the air of high altitudes has been compared to that of the ocean and of the desert.

High-altitude climates are found in all the four quarters of the globe: the Alps in Europe; the Andes in South America; the Himalayas in Asia; the Rocky Mountains in North America; the lofty plateaux of Mexico; and the high altitudes of Australia and South Africa. Davos, St. Moritz, Arosa, and Leysen are examples of high-altitude health resorts in Europe; while Les Avants, Goerbersdorf, St. Blasien, and many others in the Black Forest, Harz Mountains, and Alpine foothills are illustrations of mountain resorts of moderate elevation.

The elevated resorts of the Rocky Mountains, from 5,000 to 7,000 feet, have a dryer climate and more sunshine than those of Europe. The principal resorts are found in Colorado, New Mexico, Arizona, Utah, and Texas. Many which are climatically valuable are unavailable on account of the absence of suitable accommodations.

In Colorado we have Colorado Springs, Denver, Estes Park, Glenwood Springs, and others; in New Mexico, Santa Fé, Albuquerque, Las Cruces (3,800 feet) and Silver City; in Arizona, Prescott, Phœnix (1,100 feet), and Tucson (2,400 feet); in Utah, Salt Lake City; in Texas, El Paso. There are also many resorts of lesser elevation in the Adirondacks, Alleghenies, Appalachian and White Mountains, such as Saranac, Asheville, Bethlehem, Kane, and Mount Pocono. In Mexico we have the City of Mexico, Guadalajara, Aguæ Calientes, Toluca, all over 5,000 feet high, and many others. In South America we have the region upon the Pacific slopes of the Andes, many years ago made known as favorable for phthisis by Dr. Archibald Smith. The elevation varies from 8,000 to 12,000 feet, and the chief climatic characteristics are: (1) Moderate warmth; (2) equability of temperature; (3) abundant sunshine; and (4) moderate dryness. There may be mentioned Jauja, Bogota, Quito, Arequipa, and Huancayo.

"Unfortunately," says Weber, "at none of the resorts is the accommodation good enough for invalids."

In India, Darjiling (8,200 feet), Simla, Landour, Naini Tal, and Murree are some of the best spoken-of stations. According to Weber, the testimony of Indian medical officers appears to be rather against the use of the Himalayas in the treatment of lung diseases "and apparently this is on account of the heavy rainfall." In South Africa, Kimberley, Bloemfontein, and Pretoria, all 4,000 feet high or over, are some of the places used as health resorts. "The accommodations for invalids," remarks Williams, "are not up to the European standard," but the climate, he says, has yielded excellent results in his hands.

In Australia, there is the highland region embracing the slopes of the Australian Alps, with an elevation of from 2,000 to 7,000 feet, but only Mount Macedon in Victoria (2,500 feet) and Mount Victoria, New South Wales (3,490 feet) offer satisfactory accommodations to invalids.