Perhaps the heaviest charge to be laid at our door as regards the prevention of out-of-door life, is the question of winds. While the average daily velocity in miles at Denver, is much less than in Boston, as is shown by the following table, yet it sometimes happens that we have high winds, which, in a city like Denver, where the streets are not paved and there is no snow upon the ground, picks up the dust and makes a so-called "dust-storm."

VELOCITY OF WIND, 1880.

	Spring.	Summer.	Autumn.	Winter.
Boston	257	184	223	281
Denver	156	143	115	127

In places like Colorado Springs, Boulder, Idaho Springs, Poncha Springs, etc., where the soil is more gravelly and where there are not any narrow streets, through which the wind can sweep, as through a funnel, dust-storms are infrequent. Even in Denver the days in which there was a wind of eighteen miles, or over, for two consecutive observations of the three, 9 A.M., 1 and 5 P.M., during the year 1886, were as follows:

HIGH-WINDS, 1886.

January	1	July	0
February	5	August	1
March	1	September	1
April	1	October	3
May	2	November	6
June	0	December	2

There were, in addition, about an equal number of times when there was a wind, of eighteen miles or over, at only one of the three observations.

These figures, I know, can carry but little idea, for unless one is acquainted with the methods of taking observations the simple statement that a wind is blowing eighteen miles an hour does not convey much information. It is nothing like a tornado, and perhaps should not be called a high wind. Many would speak of it as a pretty stiff breeze.

In mentioning the aseptic air, the clear weather, warm sun, dry soil, freedom from fogs, etc., as amongst the attractions that conduce to life out-of-doors in Colorado, I must not forget to add to them the vast number of natural objects that awaken interest and excite the curiosity.

There are mountains, and dells, and caves, and cañons to be explored; remarkable and grotesque formations in rock to be visited; an almost unknown Flora and Fauna to be studied, and upheavals and wonderful geological formations to be noted. There are mountains, on the one hand, with all the attractive features of life amongst the eternal hills, and plains close by to be roamed over at will, as one drifts about over the rolling sea.

Space will not permit of my going into detail, the guide-books and other writings are full of descriptions; and so I will draw what I have to say about the attractions to an out-of-door life in Colorado, to a close, by quoting from a remarkably impartial article written by the late Dr. Ely, who, himself an invalid, kept close observation of the weather of Colorado Springs. "From the 1st of September (1883) to the 1st of May (1884)" he writes: "I have been confined to the house by bad weather forty-two days—that is, there have been forty-two days (out of two hundred and forty-two) on which I have not been able to go out even one hour, and such may be fairly reckoned as days indoors. Of the remaining days there have been many when I should only be out from two to four hours,

and when being out was a burden to the flesh. This record is satisfactory enough for me."

He then concludes his article as follows: "Colorado can easily afford to rest on its own merits, which are indisputable, and is only injured by much of the indiscreet praise bestowed upon it by its friends. Despite all objections which may be raised, the climate is, probably, as we have already said, the very best of its kind at present available for invalids, and destined to grow in popularity as its merits become more accurately understood."

ATYPICAL TYPHOID FEVER, WITH REPORT OF A CASE.

BY H. LAWRENCE JENCKES, M.D., HAZEL GREEN, WISCONSIN.

THE typical or common form of this disease is too familiar to require any description in this article. The report, however, of a case in which the temperature during most of the patient's illness was subnormal, may be of interest.

In a lecture on the subject by James C. Wilson, M.D.,¹ at the Philadelphia Hospital, he divided the atypical forms into the following classes; namely,

(a) Mild typhoid; (b) abortive typhoid; (c) typhoid of childhood (infantile remittent); (d) typhoid of the aged; (e) cases of febrile intestinal catarrh; (f) cases of afebrile intestinal catarrh. It is to this last and rare form that I would direct attention.

The writer was called on the 20th of April, 1886, to see a child ten years of age who had been unwell for several days. His tongue was slightly coated, bowels constipated. Pulse 100, temperature 100°, under the tongue when it was taken at each examination. At this visit he was given a dose of calomel and bismuth, and a Dover's powder left to be taken at bedtime. The calomel produced several free evacuations from his bowels during the night.

On the afternoon of the next day there was little change in his condition, his headache had not abated, pulse 100, temperature 101°. He was ordered a fever mixture. The next afternoon his pulse and temperature were 110 and 102.2° respectively. A milk diet was ordered. On the 24th there was no headache, but the pulse was 118, temperature 103.5°. No tympanites, but marked tenderness in the region of the ileo-cæcal valve. The case was pronounced one of typhoid fever, and the patient put upon the so-called "specific treatment" of carbolic acid and tincture of iodine, which caused so much nausea, however, that, after a few days it was discontinued, and the previous fever mixture was resumed.

On the afternoon of the 26th, the patient seemed worse. He would answer questions very slowly; his abdomen was slightly tympanitic and tender on pressure, pulse 118, temperature 101°. It will be noted that the temperature fell 2.5° on the seventh day of treatment, and about the tenth day of his illness. As he had not been overwhelmed with quinine or antipyrine, it could hardly have been the result of treatment. On the 27th, a moderate diarrhoea set in, with pulse 120, temperature 99°; in all other respects the condition was unaltered. There was no change on the 28th, but on the 29th the tympanites had increased, and blood appeared in the discharges; pulse 124, temperature 98°. For six days, until May 5th, there

¹ Medical News and Abstract, July, 1881.

was little change in any of the symptoms. Rose spots appeared upon the abdomen, the pulse ranged from 118 to 124 and temperature from 98° to 99°.

From the 5th to the 18th, the pulse remained about 115 to 120, and the temperature about 98°. On the 19th his pulse fell to 108, after a profuse perspiration, and his temperature was 98.5°. After the 20th no record was kept, but on the 24th the temperature was normal, the pulse 100. The patient was quite cheerful and sat up an hour that day. The only striking feature of this case is in connection with the temperature which remained at 98° for about three weeks, with all the other symptoms of severe typhoid fever, well marked. This case, with a few others that have been published has a tendency to prove that elevation of temperature is *not absolutely necessary* in cases of typhoid fever, although the general belief is that it is excepting in mild cases.

In looking over the literature at hand upon the subject, I can find but few cases reported. Hartshorne says: "An attack of disease, in which, on the second day, the heat in the axilla is as high as 104°, is not typhoid fever, and the same exclusion applies if, from the fourth to the eleventh day, the temperature falls below 103°."

Fräntzel⁸ reports the following: "Several cases of typhoid fever which attacked exhausted individuals, and which ran their course with low temperature, or without fever, but in which occurred general collapse, serious cerebral symptoms, and tendency to gangrene of the extremities, which run a strikingly acute course. Such cases indicate that high temperature is not the only cause of death in typhoid fever, but that cerebral symptoms are of great importance, and that patients even with low temperature must be carefully watched, to prevent them from the many evil consequences of even quiet delirium."

In the article on typhoid fever by Liebermeister,⁴ cases are mentioned in which the temperature is not high (afebrile cases), but such cases are classed as mild. He attributes more significance to the character of the temperature than to any other symptom of the disease.

Professor Flint⁶ says: "More or less increase of the heat of the body is invariable. The rule that, during the greater part of the disease, the temperature is raised is without exception; but, under certain circumstances, the heat may not exceed, and it may even fall below, the standard of health."

In a review article⁶ I find the following: "Mr. J. V. Lentaigne's case of fatal peritonitis, following perforation of an ulcerated small intestine, is of very great value with reference to the diagnosis of enteric fever and the occurrence of afebrile cases of that disease. The patient from whose body the specimens were taken came from a notoriously unwholesome tenement, in which thirty-three or thirty-four persons lived in eight apartments. Seven deaths had recently occurred, and one man was then sick abed. Furthermore, the main sewer of the street had been for some weeks 'open.' The man had been ill for about a fortnight, and had been refused admission to three hospitals. When received into the Jarvis Street Hospital, al-

though manifestly ill, his temperature was normal, and the difficulty in diagnosis appeared to be due to this fact. The autopsy discovered the lesions of enteric fever. The writer of this review has elsewhere insisted upon the fact, too little recognized, that enteric fever may run its course not only without the typical temperature of Wunderlich, but even with a sub-febrile temperature; and, in certain rare cases, the nature of which is established by the complexus of symptoms and the coexistence of house epidemics, actually without any rise of temperature at all. It is a quibble to say that such cases are not enteric fever. They are the specific enteric disease, of which the usual fever is merely one of the prominent, but not, therefore, always essential symptoms."

From this imperfect review of the subject, the following may be deduced:

- (1) The typical course of Wunderlich does not occur in all cases of typhoid fever.
- (2) Even severe cases are occasionally seen in which the temperature does not exceed the normal.
- (3) That it is unnecessary, and may even be hurtful, to direct the treatment *solely* to the reduction of the fever, but that symptoms must be met as they arise.

REPORT ON PROGRESS IN DISEASES OF THE CHEST.

BY F. C. SHATTUCK, M.D., BOSTON.

MORTALITY FROM CONSUMPTION AMONG THE TROOPS IN THE UNITED KINGDOM.¹

AN important paper on this subject was read before the Statistical Society of London in January, 1887, by Robert Lawson, LL.D., Inspector-General of Hospitals. The periods embraced were from 1837 to 1846, and from 1860 to 1884, there having been no returns from 1847 to 1858.

It is shown that there has been a marked reduction in the mortality from consumption in the military, just as in the civil population.

There is a very general belief that the great reduction of consumption in the army was due to improved ventilation in barracks; this was commenced in 1859, and was pretty generally introduced in 1862, and should immediately have begun to show its effects. The mortality from consumption in 1860-62, however, was 5.80 per 1,000, and that of 1864, 5.56 — a reduction of 0.24 only after two years' full operation of the ventilation — while, in 1865, the ratio was 4.84, or full three times as great which followed the substitution of flannel for linen or calico shirts in 1864; and this low ratio continued, with little alteration, for the next fifteen years. Up to 1823, the troops wore cloth-trousers in summer. That year, white linen was introduced instead, which were often put on damp, and without any under-clothing. In 1846, a light woollen material was introduced in place of the linen. So far as the records enable an opinion to be formed, the introduction of the linen was followed by a large increase of deaths from consumption, and the substitution of woollen material, in 1846, was followed by an equally remarkable reduction. In 1880-84, the mortality from consumption between the ages of eighteen and forty-five in civil life was 2.81 per 1,000; in the army, 2.70 per 1,000.

¹ Dublin Journal of Medical Science, March, 1887, p. 311.

² Essentials of Practical Medicine, p. 383.

³ Zeit. für Klin. Med., Band II, § 217, from the Medical News and Abstract, September, 1881, p. 537.

⁴ Ziemssen's Cyclopædia of the Practice of Medicine, Vol. 1.

⁵ Flint's Practice of Medicine, p. 878.

⁶ American Journal of the Medical Sciences, October, 1884, p. 93.