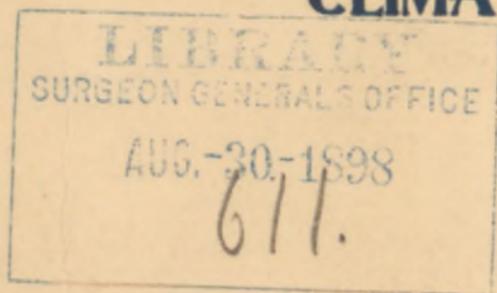


DANA (J. C.)



COLORADO:

**ABOUT ITS
CLIMATE.**



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FOR FURTHER INFORMATION
ABOUT THE CLIMATE OF COLORADO
AND ABOUT ITS RAILWAYS, RESORTS, SANITA-
RIUMS, ROUTES OF TRAVEL
AND RESOURCES WRITE TO
B. L. WINCHELL
GENERAL PASSENGER AGENT
DENVER

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PREFACE.



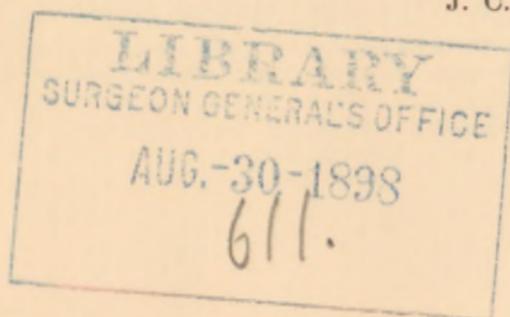
The scenery of Colorado has been widely advertised. It deserves all the praise it has ever received, and much more can be given it without either vain repetition or exaggeration.

But the climate of this region of mountain, plain, valley, park and cañon, of this "Backbone of the Continent," of this land of sunshine, blue sky and tonic air—this climate of ours calls for a more widespread appreciation than it has yet gained.

It has attracted many to our state. It brings here thousands of health seekers and pleasure seekers. It should bring many thousands more. It is one of our greatest resources, and is inexhaustible. It vitally affects the character of our citizens. It greatly influences, by cheering and bracing and inspiring each individual, our civil and our industrial life. It deserves more consideration.

The following brief statement, made as simple and as straightforward as possible, is based upon the writings of medical and meteorological experts, and draws its statistics from the reports of careful observers.

J. C. D.



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COLORADO: ABOUT ITS CLIMATE.

I. THE STATE IN OUTLINE.

Colorado's area is over 100,000 square miles, nearly twice that of all New England. Of this great region, the eastern part, one-third of the entire state, is a rolling plain, the eastern border of which is 3,500 feet, and the western, where it touches the foothills, 4,000 to 6,000 feet above sea-level. The mountain system which covers the western two-thirds of the state is too complex to admit of brief description. It is enough here to say that behind the high ramparts of the Front range, four great parks or valleys or mountain basins stretch north and south across the state, with an elevation, as to their rolling or level floors, of from 7,000 to 9,000 feet, and that between these and the state's western boundary are many mountain ranges and isolated peaks rising out of wide plateaus. In and out of this 60,000 square miles of mountain, park and table land, flow the Arkansas, the Platte, the Dolores, the Grand, the Bear and other rivers. Along these rivers and their tributaries are thousands of miles of valleys, some of them narrow cañons and little more, many of them broad, fertile and inviting. These valleys vary in elevation from 4,000 feet to 8,000 or 9,000 feet.

Colorado climate is, of course, as varied, in many of its aspects, as is the surface of the state itself. On the mountain peaks, 14,000 feet above the sea, is perpetual snow, with scant Alpine vegetation peeping forth at summer beside the drifts. In the lower valleys the climate is almost semi-tropical, and here delicious peaches, grapes and similar fruits are easily and profitably grown. Between these two extremes are found climates of all degrees of temperature. Places at the same altitude, moreover, in different parts of the state, varying as to the trend of the valleys in which they lie and as to their exposure to the winds, vary also, and widely, as to their temperature and their attractiveness as places of residence.

Three things common to all Colorado, however, must never be lost sight of—blue sky, sunshine and dry air. All over the state it is true that, save in the highest altitudes—say above 7,000 feet—on many days through midwinter, it is possible for one to sit in comfort in the sunshine in any sheltered nook. It is this almost perpetual sunshine which has perhaps more to do with the exhilarating effect of Colorado's climate on both well and sick than any other one thing.

II. WHY THE CLIMATE MAKES FRIENDS.

The Coloradoan visits his old home in Iowa, or Ohio, or Pennsylvania, or New England, or in the South, for a few weeks and returns to his adopted home, and "Did you have a pleasant time?" is the first question that greets him. And over and over again comes the answer, "O, yes; except for the weather. I was in the East three weeks and saw the sun on just three days."

The climate of America as a whole is brilliant and sunshiny, relatively, to that of much of the world; but the climate of the eastern states, when compared with that of Colorado, is so cloudy and damp and depressing that one who has lived here for a year or two feels most deeply when he returns there the lack of blue sky and cheering sun.

The new life in the new country; the swift passing of events; the possibilities of advancement and of fortune; the stir incident to the beginnings of things; all these are attractive to many, and to many compensate for the loss of old friends and for the breaking of home ties and for that shifting of the scene of one's life which is a hardship to most. But over and above all the attractions of the newness and the swiftness of western things is the attraction of the climate of our state; and many who have come to Colorado for other reasons have been led to stay, because they felt that here, under our sun, their life would be happier and fuller and more satisfactory than it could be under the too often clouded skies of the East or South.

III. NOTES ABOUT THE SUNSHINE.

The sun in Colorado—in that great tract along and among the eastern foothills, in which are located Denver, Colorado Springs, Manitou, Pueblo, Trinidad, Golden, Boulder, Fort Collins and Greeley; in that region to which the tourist and the invalid are most likely to come and in which they are likely longest to stay—the sun here shines for about sixty-two hours out of every hundred in which it is above the horizon. (The year 1892 is taken as a fair example.) That is, our ratio of total actual to total possible sunshine is sixty-two. In Philadelphia this ratio is forty-nine. During the winter months, the trying time for the invalid, the difference is more striking still. In Colorado we get, from December to March, 56 per cent. of all possible sunshine. In Philadelphia they get but 37 per cent.; a difference in Colorado's favor of over one-half. In ten years there were in Denver, on the average in each year, 314 clear or partly clear days. In Chicago, in the same period, there were only 251; in New York, 262.

The sun was visible in Denver at some time in the twenty-four hours during every day for the thirteen years from 1872 to 1885, save on thirty-two days only.

IV. THE TEMPERATURE, ACTUAL AND FELT.

The dryness and the rarity of the air make the sun's direct rays hotter and seemingly more penetrating here than in lower altitudes. Colorado sunshine will dry the soil, soften the atmosphere, and warm up every one who steps into it after a winter's storm in far less time than will the sunshine which falls through the damp and heavy atmosphere of the East.

The dryness of the air of this great mid-continental tableland, and the consequent rapidity of evaporation, must be kept in mind in considering Colorado's temperatures, would one gain an accurate understanding of the climate as one feels it. The average July temperature of Denver is 72.1 degrees. The sensible temperature of the same month, the temperature that is, reduced to eastern terms, is only 57 degrees. The Denver summer corresponds as to the feelings of those who pass through it, to that of Manitoba, of the Thousand Islands, of the Adirondacks, or of the White Mountains. (Capt. Glassford.)

The summer heat is seemingly occasionally intense; but it is really little felt, causes very little inconvenience, and never any suffering. In the hottest of summer weather it is but a step from the heat of the sunshine into the shade, which is always cool. Sunstroke is here unknown.

This coolness in the shade in Colorado, due to the very rapid dissipation of heat by reason of the rarity of the air, is something often spoken of but not easily impressed sufficiently on those not familiar with it. It makes it possible for one to live with great comfort even during a summer when the general temperature, as shown by a thermometer exposed to the direct rays of the sun, would seem to be almost unbearable.

The mean annual temperature of Denver is 50 degrees, and the mean annual temperature of all the most thickly populated part of the state, just east of the mountains, is from 45 to 50 degrees.

Capt. W. A. Glassford, chief signal officer, department of Colorado, has contributed an article to the report for 1894 of the Colorado state board of health on the subject of the actual as compared with apparent climate, and from this article some of the points given above are taken. "When the published record," he says, "of the heat in Boston, New York, Washington, St. Louis and Chicago is above 100 degrees it is simply unbearable; while the same recorded temperature at Denver is attended with little discomfort.

Why? Because in the East moisture is present to a very considerable extent in the atmosphere, while in the West it is almost absent."

V. SPRING, SUMMER, AUTUMN, WINTER.

Speaking again of that part of Colorado which is most inhabited and is best adapted to the wants of the pleasure seeker or the invalid, a strip of ten to fifty miles in width, where plains and mountains meet—the temperate belt, as Capt. Glassford calls it—one may say of the seasons:

Spring—In Colorado we escape March; that is, this month here is so much less a time of rain and snow and slush and mud and bitter winds, than it is in the East, that it passes without particular notice. During the month of March and in early April snowfalls are not uncommon; but they disappear very rapidly under the heat of the sun. The temperature in these months does not often fall below 30 degrees, and commonly before the end of March the warm sunshine has begun to bring out the grass and to swell the buds on the trees and to call back the birds. April is a growing month, and in May the plains and the country generally are at their greenest.

The mean minimum temperature for March for ten years at Denver was 27.6 degrees, and the mean maximum temperature for May was 68.9 degrees. The rainfall in the three months of spring in Denver averages about 5 inches.

Summer—June and July are quite frequently months of showers. It is not uncommon to have a shower every afternoon for several days and perhaps several weeks continuously. These lay the dust and cool the atmosphere, and do not interfere either with regular work or outdoor pleasure. The heat is very rarely oppressive, and in few places in the whole state are there nights in summer in which one does not need for covering at least one warm blanket.

The mean minimum temperature for June for ten years at Denver was 53.3 degrees, and the mean maximum for July was 86.3 degrees. The rainfall in the three summer months in Denver is about 3 inches.

Autumn—The average midday temperature of the air along the eastern foothills in Colorado (4,000 to 6,500 feet), taking Denver for example and 1888 as a fairly typical year, for September is 72 degrees; for October, 64.2 degrees, and for November, 41.3 degrees. The total rainfall in Denver for these three months, in 1892, was 4.36 inches. At higher elevations in the mountains the nights get quite cool in September, and ice forms at eight or nine thousand feet not infrequently in October; but even in high altitudes storms or periods of extreme cold in these three months are

infrequent. The autumn in Colorado, as in many other regions, is the most delightful part of the year. All over the state it is not uncommon to have, during these months, a period of six or even ten or twelve weeks with scarcely a cloud in the sky from day to day, a brilliant sun, and high winds only on very rare occasions. The ground is dry, the air—as the nights grow cool—is even more bracing than usual. In all respects this is in Colorado the ideal season for the invalid or the tourist.

Winter—The fine weather of the autumn months often continues to the middle of November, and occasionally as late as to the last of December. A noticeable thing about the climate of the winter months in Colorado is that if one lives for a few years at a high altitude, even as great as that of Leadville—about 10,000 feet—and then spends a winter or two among the foothills at an elevation of from five to six thousand feet, he does not notice any great difference in the temperature of the winter or in the number and severity of the storms. In every part of the state below 10,000 feet and above 4,000 feet, there are during each winter several periods of from three to ten days of cold weather, usually preceded by a snow storm, and perhaps accompanied by one or two days of considerable wind. But these periods of cold weather, even when on rare occasions the thermometer goes several degrees below zero, are not felt to anything like the extent that similar temperature is in a damp climate. And it probably is a fact that the physical sensations of a winter at eight or nine thousand feet or at five or six in Colorado are very similar, and that the covering needed, and the precautions naturally taken against cold are of about the same nature in both altitudes. This fact is mentioned to call attention again to the persistent characteristics of the climate—dryness and sunshine—of every part of the state.

The sun is more often clouded in the winter months than in the rest of the year; but it can not be too often stated that the winter's sun is warm and invigorating, and that there are few days in the whole season so disagreeable as to make it impossible for any ordinary invalid to remain out of doors.

Along the eastern foothills the average midday temperature of the air, again taking Denver in 1886 as typical, is 45.5 degrees for December, 27.3 degrees for January and 48.0 degrees for February. The total rainfall in Denver for these three months in 1892 was 2.47 inches.

The mean minimum temperature for January—our coldest month—for ten years at Denver was 15.2 degrees.

The clothing worn in Colorado, save in the very lowest valleys or high in the mountains, is such as is commonly

worn in New York and New England and in the western states of about the same latitude; except that in winter the heavy overcoat is less needed, and in summer the thinnest underwear is apt to prove not quite heavy enough.

VI. THE CLIMATE AND HEALTH IN GENERAL.

Colorado climate invites to outdoor life. There is no season of the year, and in fact there are few days in the year, in which one can not be out of doors with comparative comfort. This, added to the facts that the air is bracing and the sunshine inspiring, leads to a great deal of walking and driving and riding and bicycling and outdoor sports. The result of this on health is perhaps shown more clearly in the children of Colorado than in the adults. When one considers that a very large proportion of Colorado parents are people who came to the state as invalids, the healthy appearance of the children one meets on the streets and sees collected in schoolrooms or at play on the athletic grounds is something remarkable. They are full-chested, strong-limbed and bronzed.

It has yet to be discovered that, save in peculiar and rather unusual cases of certain diseases, the rarity of Colorado's atmosphere, at the moderate elevation of the eastern foothills—say four to seven thousand feet—is injurious in any way. The air, in fact, tones up the system of almost all comers.

Under the sanitary arrangements that have been put in force in Denver in recent years (and others of our cities are following Denver's example in this respect), it has rapidly stepped to the front as one of the healthiest cities on the whole continent, and this in spite of the fact that its population is constantly added to by invalids from the extreme East.

For the invalid, however, the country is the proper place in Colorado, as in all other climates; always supposing that the country furnishes good food, comfortable quarters, and a life which diverts one's mind from his ailments.

VII. LIFE OUT OF DOORS—RESORTS.

Blue sky and sunshine; these are important features of Colorado climate. To these one may add as attractions to outdoor life, a dry, bracing air, wide areas of country still little more than a wilderness in which to hunt, fish, and explore; most admirable opportunities for geological study; a varied flora of great interest to the botanical student; an insect life unusually rich, attractive to the entomologist; and prospecting grounds for gold and silver still awaiting examination. (The Cripple Creek gold fields were passed over by prospectors and others for thirty years before their gold was found.) This fact, also, should be noted:

that the railroads of Colorado—there are 4,700 miles in the state—will carry one to within a few hours' or a few days' journey by horse or wagon of country that is practically new, in which are to be found the best of sport and as much opportunity for exploration as one can wish.

Ranches, farm settlements, mining camps and summer resorts are scattered throughout the mountains in most unexpected places, and are connected with one another by railroads or by wagon roads. Camping outfits may be bought or rented in Denver or in any of the larger towns of the state. And at many of the small resorts special attention is paid to fitting out the camper.

"There are a number of boarding houses," says Dr. G. Theo. Williams, in his treatise on Aero-Therapeutics, "in the small towns and ranches in the foothills and up the cañons, where Denver medical men place their patients with advantage, such as the following: Stewart's ranch, in Bear Creek cañon (7,000 feet), about twenty miles from Denver; Longmont (5,000 feet), a small town with good water and lighting, and near it an excellent moderate pension called Hygieia. Boulder (5,409 feet), at the mouth of the romantic Boulder cañon, is a pretty town with a university, twenty-nine miles from Denver, and has suitable accommodation, with charming excursions up the adjoining valley. Greeley and Fort Collins, at a little lower elevation and some fifty to sixty miles to the north of Denver, are good places for invalids. Idaho Springs (7,800 feet), in the Clear Creek cañon, is strongly recommended. It stands on a plateau well sheltered by mountains, having remarkable saline and ferruginous springs, used for baths and drinking, and, like most of the preceding, is connected with Denver by rail. One of the great advantages of Denver is its extensive rail communication in all directions."

In the Platte cañon, within seventeen to fifty miles of Denver, and easily reached by rail, are several delightful resorts. They vary in elevation from 6,000 to 8,500 feet. Near these resorts the fishing and hunting are excellent. Good boarding houses and hotels, at moderate rates, are to be found at each of them. Perhaps the most popular of these summer outing places are Morrison, Deansbury (Strontia Springs), Buffalo Park, Pine Grove, Bailey's, Cliff, and Cassell's.

The South Park Line will take one into the mountains to the resorts just mentioned, and to many other excellent places for outdoor or ranch life in a short ride from Denver.

The pure, dry and invigorating air, the lack of dew at night, the abundance of good water, the inspiration of the scenery, and the tonic effect of the sunshine make of all out-of-doors Colorado a sanitarium. "Live out of doors,"

"keep in the sun," "breathe fresh air," are the commonest precepts to his patients of the physician skilled in the benefits of Colorado climate.

"In camping," says Dr. J. N. Hall, of Denver, in the *Colorado Climatologist*, "good company is of the utmost importance.

"There are plenty of places in Colorado where one may camp near the deer and the trout, and still be within easy reach of medical assistance if it should be needed.

"One should not start before June 1, ordinarily, nor remain out longer than September 15.

"After the middle of June, the parks in our mountains, ranging from 7,000 to 9,000 feet in elevation, offer excellent places for campers. It is easy to find good fishing and a moderate amount of game within easy reach of civilization."

"Many cases recover from early phthisis," says Dr. E. P. Hershey in the annual report, '94, of the Colorado State Medical Society, "though subsisting on coarse but wholesome food, such as is inevitably provided on Colorado ranches and such as goes naturally with camp life. Good food is, of course, of importance in the treatment of phthisis, but it is only one of the factors after all."

VIII. COLORADO CLIMATE FOR CONSUMPTION; OTHER DISEASES.

A. It is not "Exile."

"Many a consumptive has hesitated to try in Colorado the climatic treatment," says Dr. Hershey, in a paper read before the Colorado State Medical Society in 1894, "because he shrank from being exiled to a distant and strange land. Unfortunately, the physician has too often sympathized with him in this feeling. Together they struggle against the inevitable progress of the disease, and resort to what might have proven a successful treatment only when it is too late.

"The term 'exile' has been used. Exile to what? Exile to a land of industrious people, who have turned the dry, parched plains into fertile fields. To beautiful cities, supplied with the comforts and conveniences of modern life, where, among a thrifty and progressive people, business opportunities abound; to a region of magnificent scenery; to streams and lakes and parks that afford every delight to the lover of sport and the seeker of health; to a climate approaching perfection, where the sky is clear and blue, where fog and dampness are unknown, where rain and storm are rarely met, where the sun shines nearly every day in the year and the moon and the stars light up the heavens with a singular brightness by night, where the winters are mild and the summer heat never oppressive, where every inhalation of the pure, dry air fills the sufferer

with fresh hope, strength and courage; where the certainty of an early grave is exchanged for the assurance of a renewed lease of life, among happy and delightful surroundings."

B. The Consumptive's One Hope is in Climate.

"One can assume," says Dr. Henry Sewall in the *Colorado Climatologist*, "and without argument, that in the pure, dry, rare air, the variable temperature and sunshine of the arid region of the United States, particularly along the eastern slope of the Rocky Mountains, consumption in a stage admitting of easy diagnosis can be, in most cases, so cured as to form no embarrassing factor in a temperate life."

"The treatment of consumption by drugs," says Dr. W. W. Grant in the same journal, "is practically a failure. The only safe plan is to live under climatic conditions which observation and experience prove are unfavorable to the propagation and existence of bacteria and at the same time stimulating to the vital forces of man. The necessary conditions and environment exist in greatest perfection in a comparatively small area along the eastern slope of the Rocky Mountains in Colorado, and in certain parts of New Mexico and Arizona. Favorable conditions exist here to a degree unknown in any other part of the civilized world. Certainly it is the natural and true sanitarium for tubercular patients."

C. Tuberculosis is Guarded Against in Colorado.

"Our climate has nothing to fear from investigation," says Dr. Henry Sewall in the last report of the Colorado state board of health. "Tubercular patients, and those who send them here, ought to know that tuberculosis is considered as a communicable disease, and that no effort should be spared, now by the dissemination of information and by moral suasion, perhaps in the future through appeals to the police court, to control the conditions on which the spread of this disease depends."

"The sputum which may be expectorated by a tuberculous patient," says Dr. J. W. Smith in the *Colorado Climatologist*, "may contain millions of bacilli, which dry quickly and are soon destroyed by the sun's rays in this climate."

D. The Wind.

Colorado is sometimes classed among the windy western states. That part of it which is most thickly populated is not excessively windy. Denver's average daily wind velocity is much less than that of New York, Philadelphia, or Chicago. Of this and of the dust, Dr. S. E. Solly says, in the *Colorado Climatologist*: "There is, for very evident reasons, a constant movement of air, although often gentle, at all high places. Absence of dust is, also, a condition

difficult to secure at a high altitude, unless in the summer the ground is kept moistened by showers, and in the winter covered by snow. The soil, in all places where consumptives should be, is dry and light, and therefore easily raised even by light winds."

E. The Colorado Appetite.

Dr. Hubert Work, in the *Colorado Climatologist*, says:

"Tourists coming to Colorado in health, notice an increased desire for substantial food, especially for meat, and the ability to digest and assimilate also improves, with a corresponding gain in flesh. The prompt acquisition of the Colorado appetite may safely be regarded as indicating that acclimatization occurs readily in the healthy. It is of good augury, and it is, in most cases, to be found, in those coming here with impaired health."

F. Exercise.

Dr. F. E. Waxham, in the *Colorado Climatologist*, gives a word of caution regarding exercise, directed especially to eastern physicians. He says: "Frequently patients are advised to walk, to ride horseback, to climb the hills, in fact to take all the outdoor exercise possible, and to take little or no medicine. It must be remembered that, to one even in good health, exercise at an altitude of from 5,000 to 7,000 feet is much more exhausting than at sea level, until one has become acclimated or accustomed to it. Patients should be advised to rest and to take exercise gradually. Fresh, uncontaminated air is of the utmost importance; and those do better who can sleep in tents."

G. A Summary of Expert Opinions; Answering Many Questions.

Dr. W. P. Munn, Dr. S. E. Solly, Dr. B. P. Anderson, and others contributed articles, a few months ago, to the *Colorado Climatologist*, covering very thoroughly the questions most often asked in regard to the climate of Colorado and consumption, especially in regard to what cases may and what may not expect to be benefited by residence here.

The following paragraphs, condensed and combined in some cases, are taken from the articles mentioned. An examination of the literature of the subject shows that Colorado physicians generally endorse the opinions quoted below.

"Depression caused by lack of nervous force or vitality is almost invariably removed wholly or in part by a stay in Colorado's bracing air and sunshine." (Anderson.)

"The most marked benefit of the Colorado climate is shown in antagonizing and arresting tuberculosis in those whose ancestry or physique, or both, convey the impression of their being affected with general tuberculosis." (Solly.)

"The only cases of phthisis unfavorably affected by

high altitudes are those in which the extent of lung involvement is so great that the available respiratory area can not secure a sufficient supply of oxygen from our rare atmosphere." (Munn.)

"Fibroid phthisis ('usually improved,' Solly) and bronchial irritation ('not aggravated,' Anderson) do not forbid residence in the Rocky Mountain region." (Munn.)

"Chronic catarrh and inflammation of the throat, nose or bronchi, are generally improved." (Solly.)

"Phthisis consequent upon croupous pneumonia or pleurisy, is generally benefited." (Solly.)

"The presence of a cavity is not, in itself alone, a bar to coming and receiving good." (Solly.)

"Cases of so-called catarrhal pneumonia do well." (Solly.)

"Embarrassed heart action, when dependent on difficulty in securing sufficient oxygen, by reason of lung trouble, forbids residence here." (Munn.) "But if due to deficiency of muscular tone, is improved by the stimulation of this altitude." (Anderson.)

"High altitude does not cause nervous disturbance or physical depression to such a degree as to favor the development of more active pulmonary trouble." (Munn, Anderson.)

"Headaches and neuralgias due to congestive troubles are occasionally increased in severity by residence here, but the beneficial influence of the climate upon the individual's general health will, in ninety-nine per cent. of cases, vastly overbalance this." (Munn.)

"The tendency to fever in consumptives is not increased by our mountain climate." (Munn, Anderson.)

"Except in extremely high altitudes, say from 10,000 to 15,000 feet, the liability to hemorrhage is not greater here than in the East." (Munn.)

"Hemorrhagic cases do well here." (Solly, Munn, Anderson.)

"Permanent increased chest circumference results after a prolonged residence in a highly rarefied atmosphere. The heart's beat is quickened at first; but in those of normal circulation, the natural rhythm is soon established, unless excessive exercise is indulged in, which in any case interferes with acclimatization."

"When cases have reached the stage of 'arrest,' after some months' residence in Colorado, patients should not be permitted to return to the East to reside. Even a visit East of a few weeks, after several years' residence in Colorado, may cause a fatal renewal of the disease." (Munn.)

"After 'arrest' patients should not return to a lower altitude, until a permanent cure has taken place. The length of time required for such cure depends altogether upon the

individual. No two cases progress the same. As a general rule, permanent residence here is advised." (Anderson.)

"The number of months of residence required to ensure 'arrest' can not be indicated. The time needed varies with every case." (Munn, Anderson, Solly.)

"The physician sending cases here who has himself never visited this climate would exercise more wisdom did he acknowledge his ignorance and withhold advice altogether. Better for the patient, better for the doctor."

"It is quite unnecessary to say that the physician on the ground is better prepared to give advice and treatment than the eastern one. It must be admitted, also, that Colorado climate is not a 'cure-all'—a panacea for all the ills under the sun, as some health-resort writers would make one believe. Many cases are sent here that should remain at home. Many do not improve. It is quite sufficient to tell the truth. Colorado will give more bright sunshiny days, will average the year around more 'invalid's days,' than any other climate with which we are familiar." (Anderson.)

H. The Heart in this Altitude.

Dr. J. N. Hall says, in the *Colorado Climatologist*: "There seems no reason for thinking that any functional derangement of the heart is unfavorably influenced by residence at this altitude."

And Dr. H. B. Whitney, in the same journal, says: "A moderately high altitude is not contraindicated by any case of valvular disease where compensation has been constant and there are no present signs of threatened cardiac weakness."

And Dr. W. P. Munn, again in the same journal, says: "Only the functional cardiac trouble dependent upon extensive pulmonary involvement is aggravated at this altitude. Other persons having cardiac disease live as comfortably and as long in Colorado as in any other region. The percentage of deaths in Denver due to diseases of the heart and to that closely allied condition, Bright's disease, is shown by the records of the health department of that city to be very much smaller than the percentage due to those causes in any other city in the United States having a population exceeding 100,000. The same statement is true in regard to pneumonia and bronchitis. Irresponsible writers have imagined that these diseases ought to be more prevalent and fatal here than elsewhere; from belief to assertion has been but a short step, and their erroneous statements have been disseminated and have been largely accepted as correct, simply because they have not been contradicted."

I. Nervous Diseases in this Altitude.

Dr. J. T. Eskridge, in the *Colorado Climatologist*, says: "High altitudes, and more especially the altitudes of Colorado which are sought by invalids, afford no form of nervous or mental disease that is not common at sea level. Doctors have failed to detect any difference, attributable to altitude alone, in the causes, course, frequency and prognosis of organic disease of the nervous system between those observed in Colorado and affections of like nature treated at sea level."

K. Consult Experts.

Consumptive patients in the East too often depend on their own judgment or on the advice of friends, in deciding what to do. They should never fail to get the best obtainable expert advice.

L. Age as a Factor.

In general, those consumptive patients do a little better who come here when they are under 35 years of age. Old age is not a bar to one's coming to Colorado for lung trouble, but of course makes a speedy recovery less probable.

M. The Case for Colorado in Brief.

"The preferable climate for phthisis in most cases," says Dr. Charles Denison, in a paper read before the Ninth International Medical Congress, "is in the dry, cool, rarefied, sunny, clear and pure, though variable, atmosphere of a well-chosen high altitude."

IX. A WORD ABOUT MINERAL SPRINGS.

In the foothills and mountains of Colorado are many mineral springs of almost every kind, both hot and cold. Notable ones, but by no means the most important and probably not the most valuable, are at Manitou (6,300 feet)—soda and iron. One of the most important and perhaps the largest group is that at Glenwood (5,200 feet). They are hot for the most part, and contain, notably, chloride of sodium, and give off great quantities of carbonic acid gas and sulphuretted hydrogen. In the few years, eight or ten, during which they have been made use of by white men, their great value has been demonstrated. As at Manitou, accommodations for invalid or tourist are here most excellent. The springs at Idaho Springs (7,500 feet)—hot and cold—have been long used, and with most excellent results. Those at Boulder (6,000 feet)—seltzer—are in high favor in that town, and water from them is bottled and shipped to other points, though not to so great an extent as is that from the soda springs of Manitou. Careful analyses have been made of many of the springs throughout the mount-

ains; but the limited number of people as yet in the state, and consequent small market for mineral water, has made it impossible to develop many of them or to test them to any great extent. Mention should be made of the spring at Deansbury, perhaps the only strontia spring in the country; of the Fisher Springs, near Morrison; of the Cottonwood Springs, near Buena Vista; of the Wauneta Springs, near Pitkin; and of the Mount Princeton and Heywood Springs, nine in all, in Chalk Creek cañon, at the foot of Mount Princeton. A good hotel at these latter hot springs will probably be opened the coming season.

X. RAILROADS.

The Union Pacific, Denver & Gulf railway, known familiarly as the "Gulf Road," together with The Denver, Leadville & Gunnison railway, commonly called the "South Park Line," cross the state from north to south along the eastern foothills, touching all cities and all the smaller towns of importance. They pass through the heart of the great agricultural country lying north of Denver—the oldest, the most thickly settled and most productive thus far of all the farming regions of the state. They cross the Arkansas valley agricultural region, which extends from Pueblo, both east and west, up and down the river; and they enter the coal fields and the coke regions near the state's southern boundary.

By the "South Park Line" they go from Denver westward into the very heart of the mountains; they cross South Park; then, passing through one of the greatest gold regions of the state, about Breckenridge, they reach Leadville (220 millions of silver since 1879). By another branch of the same line they pass across the famous "Alpine Tunnel Route" into the rich and rapidly developing Gunnison county.

The famous "Loop Line" runs from Denver sixty miles west into the marvelous gold producing regions of Little Gilpin (83 millions gold since 1879), and Clear Creek, taking one into the very heart of the mountains in fifty minutes.

The invalid or the tourist or the seeker of a new home who wishes to look into the different sections of the state, test its different altitudes and climates, and consider in turn, as a possible home, ranch, village, mining camp, town or city, will find every variety of scenery and every climatic change and every kind of community that the state affords on the "South Park" and the "Gulf Lines."

OUR NEW PUBLICATIONS.

Write B. L. Winchell, Gen'l Passenger Agent, for them.

"COLORADO'S GOLD." This is one of the handsomest and most complete works of the kind ever published. It sets forth in an entertaining way the vast mineral resources of Colorado. The matter has been carefully and honestly prepared with the idea of advertising the mineral wealth of Colorado. The book is profusely illustrated with the finest of engravings made from original photographs. Copy of this work will be sent to any address upon receipt of six cents in stamps to prepay postage.

"CRIPPLE CREEK AND VICTOR." Nearly everybody has at least heard of the famous Cripple Creek district. This book was prepared at a large expense and is thoroughly descriptive of the past and present camp, with opinions of reliable mining men and geologists as to the future. Sent upon receipt of twelve cents to cover postage.

"LA BELLE GOLD FIELDS" is the title of a book especially devoted to the mineral resources of that district in New Mexico, just beyond the Colorado line. This little book describes minutely the character of the country, the ores, etc., and is illustrated throughout. Send two cents in stamps to cover postage.

"THE GUNNISON GOLD BELT." As its name indicates, this work is devoted to the mineral wealth of the Gunnison country. As in the case of the two foregoing books, this one is illustrated from half-tone engravings. Postage, two cents.

"PINE CREEK," descriptive of the new and rich district in Gilpin county just beyond Central City where producing mines are being opened up almost weekly; also contains an excellent map showing the locations of the principal mines and most promising prospects. Postage on this pamphlet, one cent.

"PUMA DISTRICT." This pamphlet describes carefully the new mining camp reached by the South Park Line in connection with Stage, via Jefferson. This district is perhaps the latest claimant for recognition among the gold producers, and promises to rival some of its older competitors. Will send this upon receipt of one cent to cover postage.

"IDAHO SPRINGS" is made the subject of a very attractive and valuable little pamphlet, picturing with words and illustrations Colorado's Spa, which attracts alike the seeker after health and wealth. Postage, one cent.

"BOREAS, BRECKENRIDGE AND THE BLUE" covers in a well written description, with lifelike pictures, Platte Cañon and the glorious scenery about Breckenridge and down the Blue River into Leadville. Nobody coming to Colorado should miss the trip from Denver to Leadville, via the South Park Line. Postage, two cents.

"SOUTH PARK AND THE ALPINE PASS" is also devoted to the beauties of the scenic South Park Line, having particular reference to that portion of the line from Como west through Buena Vista and Alpine Tunnel, the highest railroad tunnel on the continent. The scenery in this locality is the grandest in the Rockies and this book contains charming illustrations of some of the most striking features. Postage, two cents.

"A DAY IN THE CANONS." This publication describes Clear Creek Cañon, which surpasses all other cañons in Colorado, with the possible exception of Platte Cañon, and is replete with pictures. Of course, the far-famed Loop is described particularly and is illustrated in this work. Postage, two cents.

"MANITOU." This is a forty-two-page book gotten up in the highest style of the printer's and engraver's art and is devoted entirely to that charming resort at the foot of Pike's Peak which attracts so many tourists to Colorado each summer. This book will be mailed upon receipt of two cents.

"TROUTING IN COLORADO WATERS." Troutling is grand sport, and no one should come to Colorado without trying a cast for the speckled beauties. This book is devoted entirely to this subject, telling where the best fishing grounds are to be found, just what is essential to success in the sport, and is appropriately illustrated. Send two cents in stamps.

"HINTS TO PROSPECTORS." A valuable work for any one interested in mining. Full information as to how claims should be located, what indications to look for, etc. Also contains maps of several of the mining districts. Sent upon receipt of two cents in stamps.

"ART SERIES." A set of twelve beautiful little pictures comprising the best known scenic points in Colorado. The pictures are from the finest engravings and are mounted in dainty gilded papier mache frames. Very attractive for the home. Entire set sent upon receipt of fifty cents in stamps.

