faces would hold the liquid at this point at a higher level than where the distance between the surfaces was greater. These curved lines are not infrequently wanting in those cases in which the drum-membrane is completely collapsed against the inner wall, as then the surfaces are equidistant throughout their whole extent, but the curves immediately appear after inflation, which restores to a greater or less degree the natural curvature of the membrane. In exceptional cases the line of the serum is a straight one directly across the membrane. In these cases the serum is so very limpid that capillary attraction of the opposing surfaces of membrane does not act upon it. This fluidity of the serum can generally be demonstrated by changing the position of the patient's head, when it will be found that the surface of the serum has also changed its position, and the patient reports that he could feel the movement in the ear. The more fluid the exudation the more rapidly the absorption takes place.

In regard to the operation of paracentesis tympani, the natural dread of the knife on the part of the patient leads me to try for absorption by inflation before resorting to operative interference, but if, after from two to four inflations, the serum still remains at the same level as at first, or if absorption ceases after progressing for a time, I advise the operation. I evacuate the cavity at one sitting by inflation and by the gentle use of Siegle's speculum, not, however, using the latter long enough to seriously increase the congestion. In the majority of cases the pain from the incision is so slight that it can be easily borne even by little children, partly due, I think, to a partial insensibility of the membrane, produced by the pressure of the fluid. Where, however, the drum-membrane is decidedly inflamed or where the serum has collected in the upper posterior quadrant, requiring an incision in that portion of the membrane, the pain is sometimes acute for a few minutes, but rapidly subsides. Immediately after evacuation the edges of the wound fall in contact, and usually unite in from twenty-four to forty-eight hours, but not so firmly that they cannot be separated by a probe on the next day if further accumulation renders another evacuation necessary.

A few inflations after evacuation are generally sufficient to fully restore the permeability of the Eustachian tube, but till this is accomplished the permanency of the cure cannot be depended upon.

In those cases in which there is little or no swelling of the tissues the relief from the operation is often immediate, the fullness and pressure in the ear, the subjective noises, the dizziness and the deafness ceasing within a few minutes; where there is much swelling of the tissues the relief is more gradual, as time is necessary for the subsidence of the swelling.

SOME OBSERVATIONS ON SOUTHERN CALIFORNIA AND COLORADO.

BY F. H. DAVENPORT, M. D.

I HAVE thought that a few words in regard to Southern California and Colorado, and my impressions of their value as health resorts, might be of interest to your readers. What I shall say will be merely the result of a few months' sojourn, and I recognize the imperfect character of such observations. But they have at least the merit of being disinterested, and as

health was the object of my visit, climatic conditions were studied as carefully as the circumstances would permit. As the special aim for which the journey was undertaken, namely, to find a climate in which asthma would be relieved, was not attained, I shall at least hardly fall into the error of too enthusiastic admiration of the climate, a fault which we feel to be only too common with persons who have experienced great benefit in any health resort. Certainly if sunshine, warmth, equable temperature, very little wind, and no cold winds, slight rain-fall, and very little dampness are factors of a good climate we have one here. I personally know of no climate that equals it in these respects, unless it be Upper Egypt during a few months in winter, and that has little else but climate to recommend it. One cannot live there the year round, and it is at present merely the goal of a winter's excursion.

Let me speak a little more in detail as to these several points, and my remarks will have reference more particularly to Santa Barbara, as the greater part of the winter was spent there. The sunshine is a marvel and a delight. During the greater part of the year one can be almost as sure that the sun will shine as that it will rise; and week after week of the most charming Indian summer weather is the rule.

As regards the temperature, there is no cold weather. Hoar frost is occasionally seen, but delicate flowers bloom in the open air the year round. Snow is exceptionally seen for a few hours on the tops of the neighboring mountains, but it never snows in the valleys. The temperature in winter ranges on an average from 40° to 50° Fahrenheit in the morning, 55° F. to 70° F. at noon, and 50° F. to 60° F. in the evening. In summer these figures would be a little higher, but very hot days, with a temperature of 85° F. or over, are exceptional. The equability of the temperature is to my mind the most favorable element of this climate. The diurnal variation is very small, a most important factor in estimating the value of a health resort. The changes through the day are slight, and never sudden. There is no marked chill at nightfall, and if invalids should chance to be caught out at sundown it is not so serious a matter as at many invalid resorts of much wider fame. I am speaking particularly of Santa Barbara. In the neighborhood of Los Angeles, and in general back from the sea-coast among the foot-hills and mountains, there is a cold wave at night which must be trying to delicate persons. Santa Barbara is exceptionally well situated. The sea-coast line runs from northwest to southeast, and the prevailing south to southwest winds come in cool from the broad Pacific. The colder winds of the north and east are shut off by the range of mountains some twenty-five hundred feet high, which half encircle the broad belt of gently rising ground on which Santa Barbara is situated.

There is very little wind, as a rule. For instance, during the months of December and January there was every day a gentle breeze, just enough to ruffle the surface of the water, and only once sufficient to make white-caps. What little wind there is is never chilly, and though an occasional windy and dusty day occurs yet it is so much of an exception that it never need be taken into consideration in sending a patient thither.

I found, before going to California, that there was a great deal of misconception about the so-called "rainy

season." The expression naturally calls up to mind a series of months when rain falls pretty constantly, interfering with out-of-door exercise, causing mud and dampness, and a generally uncomfortable state of affairs. Such is by no means the case. Rain may occur from November to May, but there is usually very little except in January, February, and March, and even then an occasional rainy day, or a shower in the night, followed by bright sunshine, is the rule. As the whole rain-fall, which averages about fifteen inches, is distributed through five or six months, the amount of unpleasant weather is very small, not enough to interfere with the comfort of the most delicate patient. There is an occasional wet season when the greater part of the rain-fall occurs in one or two months, and rivers overflow their banks, travel is interrupted, and the roads become almost impassable from mud. Such has been the winter just passed, there having been the greatest rain-fall for over twenty years. In February a great deal of rain fell, more than eighteen inches in the course of three weeks; but with the exception of annoyance from delayed mails and interrupted communication it was not serious. Invalids did not seem to suffer from it, and for two reasons: first, it was not a cold rain; and, second, when the sun shone out again the roads dried rapidly in the town and its immediate neighborhood, and wonted carriage or horseback exercise could be resumed.

Two other sources of dampness are dew and fog. There is a very moderate dew-fall, and what there is seems to be precipitated in the early morning, and at sundown and in the evening there is no marked dampness. What falls in the night is so quickly dried by the sun as to cause no inconvenience whatever. Fogs occasionally occur, but are not disagreeable. They are warm and soothing, as there is a decided absence of that raw and chilly element which makes them so undesirable on our coast.

We have here a climate which would seem to possess very few serious disadvantages, and where we should expect patients with affections which need a mild, equable, and moderately dry climate to improve. Of such affections lung troubles form by far the largest contingent, and in the majority of cases they justify the reputation of the climate. More time than has yet been devoted to the subject, larger experience, and more accurate observation are needed before we can define with precision exactly what forms of pulmonary disease are most benefited by this climate. With regard to phthisis, I should select Southern California in preference to other health resorts for cases which were not predisposed to hæmorrhage, where the consolidated portion of lung tissue showed a tendency to break down, and even in cases of cavity formation, especially if there were very free secretion. The strength of the patient is an important factor in deciding. Where the strength has become markedly reduced, and there is so much prostration that exercise is impossible, I should choose California rather than Colorado, for instance. The climate is so mild as to make an out-of-door life possible for the most delicate invalid, and only as the patient gained strength would a greater elevation and a more stimulating air be advisable.

Chronic bronchitis, especially of the dry form, where there is some emphysema, and the heart has difficulty in doing its work, is one of the diseases most likely to be helped. So, too, chronic throat affections, pharyn-

gitis, and laryngitis, and catarrh in its various aspects. Many asthmatics find that they are better in Southern California, but generally experience more relief at points of greater elevation than Santa Barbara.

While California will always be a favorite health resort for consumptives, and increasingly so as it becomes better known, and travel becomes easier, yet I am sure that nervous debility will claim it more and more for itself. I know of no climate better fitted for the broken-down man of business, or the nervous invalid, to whom the slightest household care is a burden. There is something so seductive in the air and sunshine and warmth that one is perfectly contented to do nothing but breathe and enjoy nature. The universal testimony of those who have lived there a series of years is that ambition is forgotten, energy is lost, and one gets into such a placidly tranquil state of mind (demoralized we should call it) that nothing worries or disturbs, and life is not a problem to be solved, but a *dolce far niente* existence to be enjoyed.

Neuralgic affections are especially helped in this climate, while rheumatism would be rather a contra-indication.

The choice of a climate is in most cases a matter of intelligent experimentation, and experience shows that cases which for a time are benefited on the sea-coast yet now and then need a change inland. There is within easy access of Santa Barbara a health resort which combines most of the advantages of that place with greater elevation and consequently more bracing air. This is the Ojai Valley, which has a deservedly growing reputation. It is fifteen hundred to two thousand feet above the sea-level, cut off from winds, and possessing a very pure air.

Santa Barbara and the Ojai Valley together possess nearly all the requisites of a thoroughly good climate.

By all means advise patients to consult some local practitioner. There are many minor points which only such knowledge as comes from residence in a place will suggest, which, though small, are by no means unimportant.

I propose to say but little of Santa Barbara in other respects. A few practical hints, however, as to accommodations, cost of living, and other incidental expenses may not be out of place. One has a choice of three modes of living,—in a hotel, in a boarding-house, or keeping house. Hotel life involves the least care, but is the most expensive. Santa Barbara has two good hotels, one of which, the Arlington, is the best in Southern California. By the month the expense is from two dollars and a half to three dollars a day, and the accommodations and table are thoroughly good. I should consider the freedom from the cares of house-keeping, the pleasant social element which may be cultivated or not as the person chooses, and the independence which one could not have in a small boarding-house, as elements particularly favorable for most invalids.

There are several very good boarding-houses in Santa Barbara, where the expenses are about two thirds what they would be in the hotel. They are very small, however, being merely dwelling-houses, with at most three or four rooms for guests, and unless a party of friends could take the whole house there might be a great deal of annoyance on the part of invalids from noise, and on the part of well people from the constant sight of some poor invalid, or the

hearing an incessant cough. The table at several of the boarding-houses is said to be very good.

Housekeeping, with the one exception of servants, is said to be very easy. Cottages to rent for the season are very numerous, and many of them exceedingly attractive. Good furnished cottages can be had for from thirty dollars to sixty dollars a month, unfurnished for from twenty dollars to thirty dollars. An occasional open fire at morning and night is all that is needed in the way of heating. Provisions would average about the same as in the East, meats and vegetables being cheaper, and some groceries dearer. Chinese servants are almost exclusively employed, and their wages range higher than servants' wages here.

Good saddle-horses can be bought for from fifty dollars to one hundred dollars. They can be hired by the month for twenty-five dollars, or a horse and buggy for forty dollars, and for a short stay that is decidedly the best arrangement.

For any one who contemplated staying more than six months I should by all means recommend hiring a house as, on the whole, the most satisfactory way to live. For persons who are well enough to go out without regard to the weather a modification of house-keeping may be tried by renting a house near one of the hotels or boarding-houses, and taking meals at the latter. In that way more quiet is secured than in the hotel, and the bugbear of servants is avoided.

There are good educational advantages in Santa Barbara, very agreeable society, a pleasant club, and churches of all denominations. There are a great many more physicians than can make a living, most of them obliged to live there on account of their health. Zymotic diseases are very rare, and the severe diarrhoeal diseases of children are almost unknown. Children do remarkably well, as they rarely take cold, and can be out of doors at play almost every day of the year. Taking it all in all, while there are many disadvantages in an enforced residence in Southern California there are a great many compensations.

I spent a few weeks in Colorado Springs on my return, and was interested to compare the two climates, so radically different, and yet both advancing such strong claims as health resorts for consumptives. In both places I found profound distrust of the other, and in Colorado Springs it was the opinion that it was almost sure death for a consumptive to go from there to California. Several cases in point were cited, and I myself should consider it much the safer course to go from California to Colorado than the reverse. From the stimulating air of Colorado the let-down is too sudden.

Colorado does not impress a stranger as a remarkably good climate. It is very changeable, windy, and at times intensely cold or hot, and has a markedly stimulating effect on the whole nervous system. But facts speak louder than theories, and the facts are that consumptives, many of them with but fractions of lungs in working order, improve and live a comfortable life. The explanation seems to me to be the dryness and pureness of the air. Certainly if with so changeable a climate there were dampness, such good results as we find would be impossible. One result of the changeability of the climate is that part of almost every day is warm and pleasant enough for invalids to be out. The sun's rays are very powerful, and even with the thermometer at zero it is warm in the sun.

One would suppose that the effect of an altitude of

over five thousand feet on the circulation, quickening and stimulating it, would be to favor hæmoptysis, but such is not the case. The hæmorrhagic cases do well, as a rule, and a primary hæmorrhage occurring in Colorado is an exception. The cases where there is consolidation without cavity formation do best, and in many instances areas of dullness diminish and clear up with astonishing rapidity. Cases farther advanced, where there is already breaking down of lung tissue, do not do as well, and when a change of climate seems advisable in such cases I should choose California rather than Colorado.

The claims of both these great sections should not be ignored. It is absurd to send all patients to one or the other. There are cases which will do better in Southern California than anywhere else, just as there are cases which need the dryness of air and elevation of Colorado. To determine which place will suit the given case requires most careful study. The temperament and habits of the patient, extent and rate of progress of the disease, ability or not to take exercise, state of the mucous membranes of the air-passages, and a great many other points, should be carefully considered. Only as that is done can the best results be expected from a change of climate.

I heard a great deal said about the climate of New Mexico and Arizona, but only passed through these territories en route for California, so cannot speak from personal experience of their value. I only know that the air seemed to us to have an exceptionally pure and bracing quality, different from any other part of our journey. It seemed to allay all irritation of the mucous membranes, and it was a delight to breathe it. I think these territories have a great future before them as health resorts. There is a table-land which stretches on the eastern side of the Rocky Mountains even down through Mexico, at a varying altitude of from four thousand to seven thousand feet, which has virtually the same climatic conditions, and I feel sure that places will be found which will unite the advantages of Colorado health resorts with a less rigorous winter climate.

RECENT PROGRESS IN OPHTHALMOLOGY.

BY O. F. WADSWORTH, M. D.

THE JEQUIRITY QUESTION.

THE enthusiastic announcement by De Wecker, nearly two years ago, of the merits of infusion of jequirity in the treatment of trachoma has been followed by the publication of numerous articles on the subject. Our readers will remember a paper in this journal by Dr. Standish, one of the earliest on the subject published in this country, giving a detailed account of the results of this treatment in a series of cases. The success attained was a very gratifying one in view of the generally obstinate nature of the affection and its great tendency to relapses. But it appeared there that the claim made by De Wecker of the innocuousness of the remedy as to ulceration of the cornea was not altogether justified. Still stronger instances of serious implication of the cornea from the use of the drug have been presented by others. The general verdict, however, has been that the new remedy is of much value when employed with caution and in properly selected cases. Precisely what is the range of disease in which jequirity may be safely used cannot yet be