

### Atmospheric Influences Upon the Health of Humanity.

High Altitude.

Dr. D. H. Dougan, Leadville, has written a paper on atmospheric influences upon the health of humanity at high altitude, taking Leadville as the standard, from which we make the following extracts:

When we attempt to estimate the influence that altitude alone may exert on health and disease is attended by many difficulties, from the fact that all the vital phenomena are influenced by surroundings of such multitudinous character that it is impossible to study the effect of any one condition separately, so that an enumeration and analysis of such facts as come before us in connection with altitude must be regarded also in association with the many causes that combine in the formation of the result.

In a general way it may be said that the atmosphere of an altitude such as ours (10,000 feet above sea level) acts as a stimulant. To one in perfect health, this is manifested by a feeling of exhilaration when he is at rest, under its influence. All the functions of the body are quickened, the appetite increases and digestion improves, lassitude gives way to energy and vigor, and the activity of body and mind by day are followed by sound and restful sleep. Upon some forms of disease this stimulation acts beneficially, while upon others the results are the reverse.

Among the first and perhaps most important effects exerted by altitude is an increase of chest capacity. Examinations for life insurance show that our people have a greater degree of chest expansion than is the average, while the number of respirations per minute is not increased. The increased capacity is not an evidence of increase in the actual surface of lung tissue, but rather the result of its more complete utilization. Under ordinary conditions a considerable portion of lungs is occupied by residual air, and kept as a kind of reserve for emergencies, some of which is presented by elevation. Altitude diminishes atmospheric pressure and reduces the quantity of oxygen in a given volume of air. In order then to obtain the same quantity of oxygen, an additional volume of air must be inhaled with each inspiration and thus the residual space in the lungs brought into action. While the expansion of the lung is thus increased its reserve space is correspondingly diminished, and as higher altitudes are attained the dilatation continues till more rapid breathing is required to sustain even ordinary effort. The effect of altitude, in its thorough utilization of the respiratory surface of the lung for ordinary exertions must of necessity have an important influence upon the course of a disease such as pneumonia, where inflammation disables a portion of the lung and its retirement from the office of furnishing oxygen to the system cannot be compensated by the more perfect office of its remaining portion. This may perhaps explain, in part, at least, why the mortality from pneumonia is increased with altitude. For though we may say that the contraction of the chest is favored by altitude, or those conditions already named as accompanying altitude, except when associated with other factors to be referred to hereafter, it will be admitted that altitude in itself, or diminished density of the atmosphere, may have an important bearing on its mortality.

There are good reasons for believing that our mountain air would have a beneficial effect on the earliest stages of tuberculosis. The cause of consumption, though its mode of origin is still under observation, however, are so few that statistics are unavailable, but it is only reasonable to conclude that the clear, pure, invigorating atmosphere of our mountain regions would exert a beneficial effect on a system weakened by pulmonary disease, and the few cases available for study indicate that it also has a special influence in arresting the morbid process in the lungs. If cavities of considerable size have formed, the probabilities, that are that no improvement need be expected, but rather the reverse.

Of the diseases especially pertaining to childhood, we find all or nearly all of them possible. Diphtheria, scarlet fever, measles, mumps, and typhoid fever, in early infancy have each assumed their ability to become as fully developed here as elsewhere. As yet, none of them have prevailed as epidemics of as malignant character as they do in lower altitudes, their special cause being doubtless held in check by our colder climate. Individual cases may be as severe and as fatal as elsewhere, but the degree of contagion is greatly lessened and as a result the rate of disease of children is much below the general average.

In former years an idea prevailed and was generally accepted that wounds of all kinds occurring in this altitude were apt to be followed by erysipelas inflammation. Further observation has shown that such wounds follow the same law here as elsewhere, and that attention to cleanliness, care in dressing and regard to the general health are rewarded usually by excellent results, a proportion of exceptional cases being to greater than in lower altitudes.

A review of the subject leads to the conclusion that while the tendency to acute inflammatory affections may be pronounced by our extreme daily changes of temperature, the average influence of the climatic conditions found here is favorable to health. While a greater number of cases of pneumonia occur, these are largely the result of exposure, and are not often due to the absence of proper care, comfortable habitations and suitable nourishment.

On the other hand, we find the diseases that are so common at lower altitudes comparatively rare in this zone and some of them, such as consumption, almost unknown, and this, notwithstanding an almost total disregard of all hygienic knowledge.

Don't get the date. If you are not sure to keep your liver, bowels and kidneys in good condition. When you will be safe from all ailments, the remedy is **KIDNEY WORT**. It is the best preventive of all malarial diseases, and can take, see advertisement in another column.

Can't I reach God? No man can do good work, preach a good sermon, try a law suit, write a prudent or witty article, or lead a commendable and dull, with a single brain, and steady nerves, and none should make the attempt in such a manner when it can be so easily and cheaply removed by a **Little Hop Bitters**. See "Truths" and "Frosts" in other column.

**Lancaster City Pharmacy,** NORTH QUEEN ST., CORNER OPERA. **COMPounding PHYSICIAN'S PRESCRIPTIONS A SPECIALTY.** **ANDREW G. FREY,** Graduate Philadelphia College Pharmacy. Night call at residence 43 WEST KING STREET.

**\$14,000 SECURED LOAN.**—Proposed by the Lancaster and York Railroad Company for any portion of the whole amount of \$14,000,000, in the form of bonds, to be issued in the form of \$100,000 bonds, payable after five years at the option of the school District Board, and three to five years thereafter, at four percent interest per annum, payable semi-annually, free from all taxes. The above bonds will be issued under a general act of Assembly May 7, 1879, to be read in the usual portion of the school house, on the 25th of January, under special act of Assembly of 1869. By order of the School Board.

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### HOPSTETTER'S CELEBRATED STOMACH BITTERS

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Return when Hoptetter's Stomach Bitters is applied. It is used by a bilious dyspeptic sufferer. Moreover, since the brain sympathizes closely with the stomach and its associated organs, the liver and the bowels, as their derangement is rectified by the action of the Bitters, mental despondency produced by that disturbance disappears.

For sale by all Druggists and Dealers to whom apply for Hoptetter's Almanac for 1881. 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