one carried from seven-tenths of an inch to one inch per hour. In the latter case, with a very high wind sometimes, but rather the exception, there will be seen fine serrations, at intervals of one or two minutes, having the appearance of a very fine saw. These serrations are quite regular, and are seen only during the high wind. The greatest fluctuation cannot be more than eight one-thousandths of an inch and seldom are above four one thousandths to six one-thousandths. It is probable that the wind influences these fluctuations, but it is very difficult to determine just how. That a high wind does not always produce them is quite remarkable. Returning to our drawing chimney, it would seem an interesting computation as to how long a gust would need to last in order to draw out of a chimney one foot square sufficient air to produce the supposed depression.

If we consider that the barograph is inclosed in an almost air-tight case, we have still another addition to our problem. Even if there were a withdrawal of air from the room, is it possible for the influence to reach the inside of the case before the lull has made a change? A partial answer to this question may be had by experimenting with the case. If the door be opened rather suddenly a partial vacuum is formed, or a jar occurs, which moves the float, and the pencil falls or rises according as the barometer has previously had a tendency down or up. This effect is only two one-thousandths of an inch; and it is very rare that an influence greater than that can be brought to bear upon the apparatus under these conditions. It would seem as though the effect produced by opening or closing the case may be many times greater than the utmost that can come from an intermittent wind.

If we turn to the original letter by Mr. Clayton (vol. vii. p. 484), we shall find these particular cases given by him: 1°. "On March 16 the wind's velocity rapidly rose from five to thirty-five miles, and the barometer suddenly fell five one hundredths of an inch;" 2°, "During a sudden gust attending a shower, last summer, the barometer fell a tenth of an inch, and immediately rose again as the gust ended;" 3°, "It [the pressure] fell as much as a tenth of an inch during a seventy-mile wind in February." It will be seen that each of these cases occurred under abnormal conditions, and just at the time when we would naturally expect such fluctuations; but they can hardly be due to the wind, as they are often noted when there is no high wind. The wind's action is intermittent, and there is no evidence whatever of this most important fact making itself known. It is a matter of regret that Mr. Clayton did not open and shut his trap-door at intervals of five or ten minutes, for an hour or so. He would have settled the question beyond doubt if he had done this.

Much has been written in regard to the evidence of observations on Mount Washington. Mr. H. A. Hazen has given a partial discussion of the Mount Washington records in the 'Annual report of the chief signal officer,' for 1882. He there has shown that the effect of the wind upon the computed elevation changes sign at a velocity of twenty-five to thirty miles per hour; i. e., instead of the effect being zero when there was no wind, it was really zero with a wind of twenty-five to thirty miles per hour. This is a fair indirect proof either that the wind does not cause the fluctuation, or, if it does, that another force is superposed upon it.

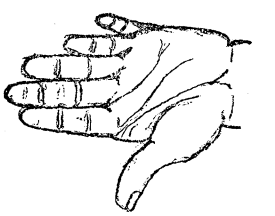
It is hazardous drawing conclusions upon the facts thus far developed. It may be that the wind can produce more than one effect, and that the serration effect above alluded to is not the only one to be considered. The weight of evidence seems to be rather against any great depression being produced. Mr. Clayton will do meteorology a great service by trying a few experiments. If his barograph, shut, is carried along only two inches a day, opening the trap-door ten minutes will give only one seventy-second of an inch for the pencil to move in. The difficulty can be obviated, however, by letting an attendant note the movement of the pencil (if there be any) and carefully take the time of the fluctuations, if the time of manipulating the trap-door be also taken, a comparison of times will settle the question.

GAN.

Aug. 10.

A case of inherited polydactylism.

In the spring of 1883 I saw and examined a case of inherited polydactylism, which I think worth recording. While enjoying the hospitality of a friend, in a charming ravine opening into Napa Valley from the mountains on the west side, my attention was drawn, by my intelligent hostess, to the hands of a German laborer at work in the garden. There were six well-formed, usable fingers on each hand. The metacarpals were of the normal number, but the fifth bore two fingers. The supernumerary little finger differed from the true little finger only in being much smaller.



I give a rude drawing of the left hand, made on the spot, showing the size and position of the supernumerary finger.

I inquired concerning his family history in this regard. His account is given in the following diagram, in which I have italicized those who are or were polydactylous:

Maternal Grandfather. *Maternal Grandmother.*
Father. *Mother.*
Peter Weitner, Sisters. *a*, b, c, d; Bro. *a*.
Children.

It is seen that the deformity was inherited from his mother's maternal grandmother; that, besides himself, it has affected one sister, out of four, and one brother, and has been transmitted to the children of the sister, thus affecting at least four generations.

JOSEPH LE CONTE.

Berkeley, Cal., Aug. 5.

"Thumb marks."

One of the anatomical characteristics recently brought within the area of anthropological investigation is the marking on the skin of the hand, espe-