observation planned to test a totally different hypothesis. I had supposed that the vibrations might be due to some extent to simultaneous abrupt or periodic disturbances of the atmospheric pressure. As explained above (p. 36), the statolimnograph can be used in rapid alternation as a limnograph and as a microbarograph. Fig. 34 shows the result of an observation of this kind. The limnogram is deeply embroidered; the microbarogram is all but straight. Since the sensitiveness of the Richard statoscope is fifteen to twenty times that of a mercury barometer, the ordinate of the microbarogram represents the air-pressure on a larger scale than a water barometer. If we allow for the damping effect of the well and access tube on the half-minute vibrations, we shall be under the mark if we admit that

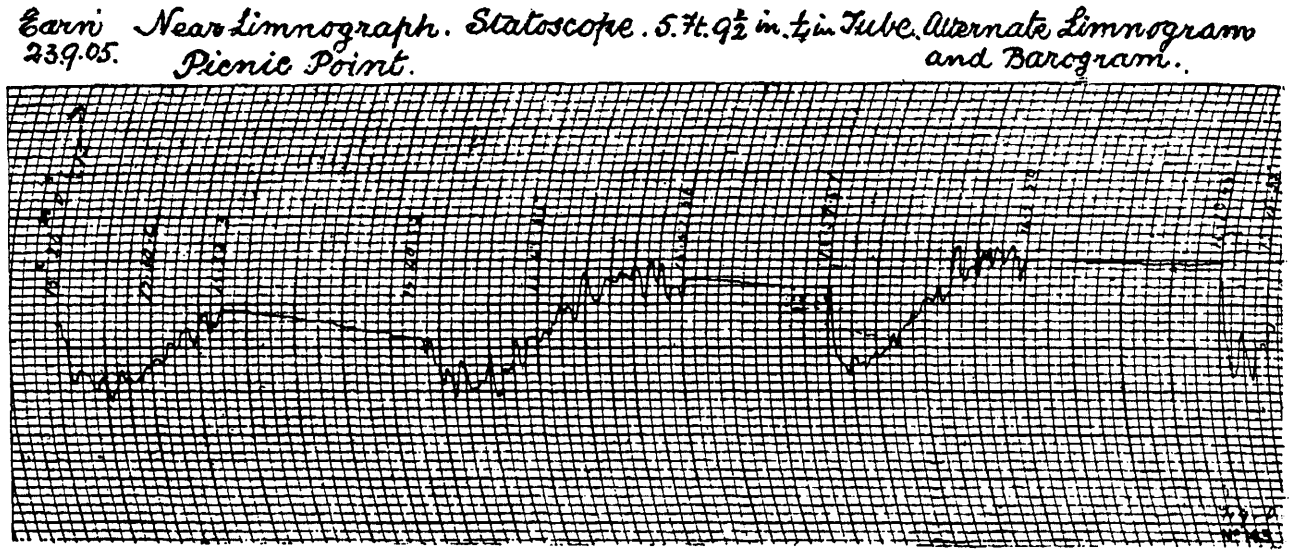

FIG. 34.

the statolimnograph magnified the range of these vibrations three times. The obvious conclusion is that there was no disturbance of the atmospheric pressure of an order sufficient to cause directly the embroidery observed on the limnogram. It follows that it must have been due to some cumulative atmospheric cause whose action originated at a distance from the observers, and I am inclined to look for this cause in the surface waves, solitary or periodic or quasi-periodic, caused by the heaping action of the wind. It is, of course, obvious that such action as this would be screened off by a promontory or an island, and would be most marked at the windward end of a lake. This cause was suggested, under the name of *Windstau*, by Endrös in his classical memoir on the complicated seiches of the Chiemsee, which has done so much to enlarge our knowledge of lake oscillations.