

directly behind each other, marred the lifting effect. Whole masses of cells which seemed hardly within the reach of air current appeared to be solely useless ballast.

On the working program for the winter in Hammondsport, therefore, was placed the search for a more advantageous grouping of the cells, the program being carried out mainly by the younger element. Gliding experiments were suggested, which were taken up with enthusiasm. Faithful to the aim set by Mrs. Bell, viz., to arrive at real flight on the shortest route, there were soon rather eclectic proceedings, and thus a gliding machine was adopted, which came next to that of the brothers Voisin in France. In appearance it resembled the Herring-Chanute apparatus, but the most important part of that, the automatic steering tail, was replaced by a rigidly connected surface behind the wings. As wind vanes, small vertical planes at both sides behind the wing tips, were employed. The results of these gliding experiments resembled those of most of the ^{epigons} of the old able school. The obligation was missing to overcome the initial difficulties. And the light motor showed itself in too alarming a proximity. Lilienthal, Herring and the Wrights attained such enjoyable results, just because for the time being they were not at all able to see more than the gliding problem and were therefore given to the subject with heart and soul. It is rather an impediment for true progress, that gliding is more difficult in the beginning than dynamical flight, for the simple reason that it becomes so uninteresting and laborious in a calm, that "flying in the wind" is simply a necessity. Nobody has as yet