

had worked for some time previously in a technical office of the Polish Air Force, and had had an opportunity of completing a course at a military flying school. He was, thus, just the type of man to work on new technical air problems. The Aeronautical Students' Association in Lwów elected him as Vice-President, and from that moment he began to work on motorless flying. In February, 1928, was founded in Lwów a Students' Aero Club.\*

The first action of the new club was to organise, in collaboration with the Aeronautical Students' Association, a motorless flying expedition to Zloczów, south-east of Lwów, which was chosen by Czerwinski and his colleagues as a soaring ground.

At this time we possessed only one glider, the C.W. I, constructed by Czerwinski. The choice of the ground at Zloczów proved to be good. In the first flight the machine soared over the heads of those people who had remained at the starting point. After soaring for seven minutes, Grzeszczyk, the pilot, landed voluntarily not far from the starting point. This was the real beginning of soaring in Poland (May, 1928).

Alas! the second attempt finished very badly. Through lack of experience at that time we placed the glider in a bad starting position in a turbulent wind area. As a result the pilot was seriously hurt, and the machine completely destroyed.

Fortunately there were under construction at the time two new types of glider, the C.W. II and the C.W. III, both designed by W. Czerwinski. The C.W. II was designed originally as a primary type, but long before the completion of this machine Czerwinski was coming to the conclusion that for the first step in motorless flying this type of glider with a very efficient but unstable aerofoil (Gottingen 535) would be too difficult. He, therefore, designed a new type, the C.W. III as an equivalent of the German ZÜGLING, and converted the C.W. II to a secondary machine by the addition of a nacelle.

#### Government Assistance.

As these were nearing completion, a high official of the



The "C.W. III," the Polish equivalent of the "Zogling."

Air Department of the Ministry of Communications, Mr. Adamowicz, happened to see the two gliders. Thanks to him, and to Col. Filipowicz, the Chief of his Department, we received a subsidy of 5,000 zl. (about £120 at that time), which was a big sum for our modest organisation, and we were able, at last, to finish the two machines.

During the first years after the Polish-Bolshevist war only theoretical and technical work was possible. When we first tried to organise flying courses, we decided to form Students' Aero Clubs, the aims of which were to bring together people who were interested in aviation from the sporting point of view.

In the Autumn of 1929, a second soaring competition was organised, this time at Bezmiechowa in the Lower Carpathians. The ground was chosen by W. Czerwinski as he was familiar with the district as a ski-ing ground. Before taking the machines there, Mr. Grzeszczyk inspected the site and found it very promising.

Autumn is generally a beautiful season in Poland. Our expedition waited a long time but no wind came. People were discouraged, with the exception of Grzeszczyk, whose patience was rewarded with success. On November 11th, 1929, came suitable atmospheric conditions, and our champion soared continuously for 2 hours 11 minutes. The news was cabled throughout Poland, and, as usual, success brought friends. From this moment all the authorities as well as the public in Poland began to believe and take an interest in motorless flying.

We then placed the training of pilots as the first step in our programme, and Grzeszczyk remained as the leader of the whole Movement, and became the Chief Instructor. This decision was, in my opinion, very important. The training of young airmen is the principal purpose of motorless flying. The second purpose is the opportunity for designers to make full scale study of technical problems. Therefore the soaring question develops itself, when it is taken in hand by an organisation of young people. In Germany the part taken in soaring progress by Akafliugs is well known, but in our country all this work was done by the various students' organisations. These groups were later merged with the regional aero clubs, but students still form the greater proportion of members.

In our students' Aero Clubs everybody wants to fly, but only a small number of them are admitted as Reserve officers to the military flying school, and among the Polish youth, still fewer can afford the high price of private motor flight tuition.

For this reason the third expedition to Bezmiechowa was chiefly a period of training for pilots who had not yet flown gliders. At the same time Grzeszczyk began to train *ab initio* who could not fly engine aircraft. Each year, since 1930, the Aero Club of Lwów organises at Bezmiechowa, two periods of motorless flying, each lasting from six to nine weeks. The first one is in Spring and the second in Autumn. The Spring period is reserved chiefly for school work (for "B" pilots who wish to

\* The two Aeronautical Students' Associations—one in Warsaw, the other in Lwów—formed the groups of future aircraft engineers.



The "Czakja II" in flight. Below is the "C.W. III" being brought back to the start after landing.