The Flying Machine Again.

An Assistant of Hiram Maxim on the Lilienthal Disaster.

The sad conclusion to Herr Lilienthal's experiments in human flight has provoked discussion among specialists as to the specific cause of the failure of his machine to carry him successfully through his last unfortunate adventure. One writer in „The London Saturday Review“ attributed his fall to the fact that his machine was not stable sideways. Commenting on this, Percy S. Pilcher, an assistant of Hiram Maxim, writes to „The Saturday“ as follows:

As a matter of fact his (Herr Lilienthal's) accident had nothing to do with transverse stability; he pitched endways. Having started from a high hill and made an excellent soar, in which he had lost only very little in elevation, he lost his forward speed through the air; partly, it appears, from the accounts of onlookers, through having ridden his machine with his weight rather far back, in order that he might gain full benefit from an anticipated puff of wind, and partly because, from a sudden lull in the wind, he found himself all at once without motion through the air. He consequently put his weight forward to incline the front of the machine downward, that he might regain his forward speed, but unfortunately he tilted the machine too much down in front and descended practically end on. It had always been Herr Lilienthal's custom to balance the machine both sideways and endways by moving his weight only.; but on this occasion he was using in conjunction another device by which when he moved his head the horizontal rudder moved, so as to give him greater command over the tilting of the machine. His accident is very probably due to his not having been quite well enough acquainted with this new system.

It is a matter of experience, both Herr Lilienthal's and my own, that if a machine is made stable sideways it will constantly come to grief. Side stability may be given by making the machine like a Hargrave kite having vertical side surfaces, or it can be given by raising the wings at the tips - that is to say, by making it V-shaped in the end view. It the wind were steady, a stable machine would be all right, but with a stable machine, if the wind shifts sideways so that it comes slightly on one side of the machine, it must necessarily raise that side against which the wind strikes, and this tends to capsize it, whereas by making the machine quite neutral transversely, the machine can be handled comparatively easily in a shifty wind, the transverse balance being maintained by throwing the weight of the body from side to side.

If is also necessary to keep the wing surface low, because if it is high above the man's body a sudden puff of wind will take the light wings away with it to a certain extent, whereas it will not have much hold on take comparatively small and heavy body of the man underneath. There will thus be a capsizing tendency and the control of the machine will be taken away from the man.