

Blanchard to McCurdy.

Baddeck, N.S., Feb. 25, 1909:- Will you be offended if I make a few suggestions regarding the big Cygnet?

The first is, polish the runners to a shine. If my experience with coasting sleds and double runners is at all in point, I would say there would be a difference of 25% in favor of a polished runner, and the difference is fully as marked on ice as on snow. Now of course I don't have to tell you that if it requires a speed of say 25 miles in still air to get sustaining power for the Cygnet, that if the angle of elevation is the same while the machine is resting on the ice as it is to take when pursuing a horizontal course through the air that it will take not only the power sufficient to fly the "drome" to propel it up to this speed but also enough to overcome the friction on the ice. Say this latter friction requires 15 H.P. and to overcome the air friction on the cells 40 H.P. that means 55 H.P. But suppose you only have 50 H.P. you cannot get up the initial velocity, and so cannot fly. If now, you could reduce your head friction until you had then this initial velocity, then by throwing up your wings to the proper angle and your rudder accordingly as you well know how, you rise, and have 10 H.P. to the good once you are in the air.

My suggestion would be, for ICE use a much better skate like the ice-boat and have a front steering skate moving in unison with your perpendicular rudder.