

CLIMBS HIGHEST THEN FALLS

After breaking the world's record for height at Dayton, O., Maj. R. W. Schroeder continued to battle his way upward foot by foot in a bitter cold atmosphere and against a wind blowing 100 miles an hour intent upon obtaining his objective, an altitude of 40,000 feet, until his supply of oxygen became exhausted and he lost consciousness. The airplane dropped 5000 feet, doing a tail spin.

Maj. Schroeder's eyelids were frozen together in the sudden drop, but the quick change from an air pressure of less than three pounds to the square inch to one of about 15 shocked him back to consciousness and he regained control of his machine while still 2000 feet above the earth. He made a safe landing and then collapsed. When attendants rushed up they found him sitting in the machine apparently lifeless. He is now being treated in a hospital.

Instruments in the machine showed that Maj. Schroeder had reached an altitude of 36,020 feet, 1410 feet above the world's record. His thermometer registered 67 degrees below zero. The officer was better prepared for the cold than any explorer in the polar regions. His suit was lined with fur and under this were flexible electric heaters connected by silk-covered wires with the dynamo of the engine. His headgear, gloves and moccasins were similarly heated. He wore an oxygen mask of his own design.

The flight and fall of the airman caused considerable excitement at Dayton. In ascending the airplane left a trail of exhaust gas which was condensed in the frigid air and was mistaken by many for the appearance of a comet. Some suggested that a strange body was coming with a message from Mars. The telescope at St. Mary's college was brought into use, and the airplane was discovered. Thousands of persons watched during the period of two hours the plane was in the air, and so witnessed the fall.

In August, 1919, Maj. Schroeder broke the world's speed record for high altitude by flying 137 miles an hour at a height of 18,400 feet. In September, 1918, he made a world's record for height at Dayton by going up 28,900 feet. This record was surpassed by Roland Rohlfs, who reached a height of 34,610 feet at the Roosevelt flying field, L. I., last September. The next greatest height was made by the French pilot Adjutant Casale whose barograph registered 33,136. Almost as soon as Maj. Schroeder was able to talk after his great fall he announced his intention of trying again for the record of 40,000 feet.

WAX-MAKING HARD WORK FOR BEES

Naturalists tell us that when a swarm of bees need wax to build new combs a delegation of workers gorge themselves and cling together in a dense mass, sus-

ended from some point overhead. Within 24 hours wax begins to ooze from the wax-plates on their abdomens, being secreted by glands near the plates. These plates, on the under surface of the abdomen, can be viewed readily with the aid of a microscope, even one of low power.

Making wax is harder work for the bees than making honey; to produce a single pound of wax 21 pounds of honey is consumed. In order to obtain the maximum amount of honey, many up-to-date bee-keepers use a machine to extract the honey from the comb and then put the latter back in the hive to be refilled repeatedly, thus not only conserving honey but making more of the bees' time available for gathering and storing new stocks of the sweet liquid.

The wax as it exudes from the plates on a worker's abdomen is thin and fluid but soon hardens in contact with the air, forming a coating on the outer surface of the plate, which gradually thickens as fresh wax is secreted. When a comparatively large mass of wax has accumulated the bee begins scraping it off with its hind legs which are fitted with sharp hairs or spines, known as pollen combs. Often other bees assist in removing the wax, stabbing their spine-armed legs into it and pulling it loose.

As the wax is torn off in the form of scales it is passed forward to the mandibles of the insects and with some assistance from the fore legs worked into a smooth soft mass which is finally used to build up six-sided cells of comb for honey, for eggs or for bread.

THE TROUBLE WITH AMERICA

"What is the matter with America these days?" asks the Fargo, N. Dak., Forum and then it proceeds to answer, as follows:

Too many diamonds, not enough alarm clocks. Too many silk shirts and not enough blue flannel ones. Too many pointed-toed shoes and not enough square-toed ones. Too many serge suits and not enough overalls. Too much décolleté and not enough aprons. Too many satin upholstered limousines and not enough cows.

Too many consumers and not enough producers. Too much oil-stock and not enough savings accounts. Too much envy of the results of hard work and too little desire to emulate it. Too many desiring short cuts to wealth and too few willing to pay the price.

Too much of the spirit of "get while the getting is good" and not enough of the old-fashioned Christianity. Too much discontent that vents itself in mere complaining and too little real effort to remedy conditions. Too much class consciousness and too little common democracy and love of humanity.