New "Triangle" Parachute

A revolutionary type of parachute that may ultimately take the place of the standard one now in use has been developed by the Army Air Corps at the experimental laboratories at Wright Field, Dayton, Ohio, after more than a year's research.

Though the materials, general size and principle of operation of the present-day "flyer's umbrella" are utilized, the newcomer has a different kind of mainsail, far more stability and safety of operation, and a unique type of pilot "chute".

Instead of the circular mainsail a triangular one has been substituted, with two corners rounded and the third sheared straight across. The shroud lines extend down, spaced regularly as in the standard 'chute, except across the sheared-off corner, which has no shroud lines at all. The result is that when the parachute is open, this corner forms a tail-like vent through which the air escapes.

More than a dozen jumps and a hundred dummy drops have been made with the new 'chute. These indicate a decreased oscillation and shock to the jumper at the time of opening, besides greater steerability in descent. This improved operation is accomplished mainly by the new mainsail. The air escaping through the tail-like vent propels the 'chute horizontally at a speed of from three to four miles an hour. Because the parachute inherently possesses this horizontal motion, steering can be accomplished by the manipulation of the shroud lines and the 'chute can be turned so that the vent is with or against the wind, controlling the desired direction.

The decreased shock to the jumper results from a second round vent at the apex of the mainsail. Prior to operation the vent is closed, but when the 'chute starts downward, the vent automatically opens. It causes a very slight swerve from course and virtually no swing.

A feature adding to the safety of operation upon opening is the new springless, non-foulable pilot parachute. It is 30 inches long and 36 inches in diameter. The lobes have partitions which extend to a long central elongation fastening directly to the apex of the mainsail, making shroud lines unnecessary.

Moreover, whereas in the standard 'chute the actuation of the pilot umbrella is supplied by springs, in the triangle 'chute it is achieved by a different method of packing.

The new pack has rounded corners for better wear and to prevent folds of the silk slipping through. As in the standard parachute, the shroud lines are packed in pockets, zig-zagged across the bottom of the pack. The mainsail is folded on top.

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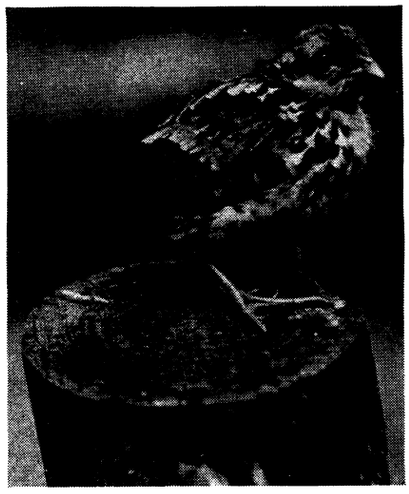
Ruffed Grouse Reared by Hand—*Continued*

New England under the direction of Prof. A. O. Cross of Bowdoin College and a western investigation in charge of Prof. D. J. Leffingwell of the Washington State College of Agriculture, has reached the neighborhood of 2600 specimens. The examination and study of birds in such numbers has, of course, given ornithologists a much better picture of the life history and physiology of the ruffed grouse than was ever possible before.

One of the most interesting features of this investigation was the recent attempt to link grouse up with tularemia, the rabbit plague that has swept over the country in the last few years and which has attracted wide attention from the number of human victims that have succumbed to it. It was shown by Dr. R. R. Parker of the Spotted Fever Laboratory and Dr. Green of the University of Minnesota that grouse could be artificially infected with the disease and it was thought that it might be transmitted to the birds by natural means through the rabbit tick with which they also are infested. As yet, however, Dr. Allen points out, not a single known case of tularemia in a ruffed grouse contracted by natural means even in captivity has been found. The problem is complicated by the fact that tularemia is difficult to identify in birds. The only sure means of establishing the case is to reinfect guinea pigs with serum from the dead birds, which in the case of true tularemia will produce typical lesions in these animals. The experiments with tularemia and grouse are being continued but at the present time no definite knowledge has been brought to light that this disease is in any way responsible for the grouse shortage of the last year.



THIS BRIGHT YOUNG FELLOW is just seventeen days old

Dr. Allen's activities in this work are not limited to grouse farming in his dooryard and grouse autopsies in his laboratory. He is also deeply concerned with the conditions of grouse life in the wild. About seventeen miles southeast of Ithaca is a tract of hill land of about 13,000 acres, known as Connecticut Hill. Within this area the New York state conservation commission has decided to develop a game refuge and demonstration forest. Options have already been taken on about 4000 acres. In this area Dr. Allen and one of his associates, Gardiner Bump, picked out a tract of land of about 1200 acres and by the expenditure of infinite pains and time took a census of all the grouse it contained. Records were made of all the plants and shrubs with special reference to the ones that partridges, as the farmers call them, like to eat. A careful check will be kept on the number that survive each year and every attempt made to find out, in so far as possible, all about the private life of the grouse tenants of this typical piece of covert.

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