

planes will mean that the Reich, too, will have to counter with broadside weapons of its own.

Superiority of the Defiant can be attributed mostly to its armament and not to other features. A single-engined two-seater, its top speed of less than 330 miles an hour makes England's "secret weapon"

slower than most fighters, little faster than most bombers and not as fast as some of the newest. Single-engined multi-seaters have been abandoned by the U. S. Army Air Corps for that reason, but it should not prove impossible to utilize the Defiant's principle of gun-power on twin-engined combat planes.

Science News Letter, June 15, 1940

PSYCHOLOGY

Ape Babies To Be Trained In New Experimental Nursery

Infants Separated From Mothers at Birth Will Have Benefit of Scientific Care and Will Wear Diapers

See Front Cover

SOMETHING new in experimental nurseries has just been completed at Orange Park, Florida.

Infants separated from their mothers at birth will be brought up entirely under a scientific, controlled regime directed by an experienced psychologist, Dr. Henry W. Nissen.

Behavior problems will be studied. Growth and development will be watched and measured. Comparison will be made between the infants in this spic-and-span scientific nursery and those brought up by the "instinctive" care lavished by a mother.

If you could walk into this nursery, you would be charmed by the infants, dressed simply in the conventional three-cornered garment of babyhood, but you would not try to enroll a baby from your own family. Reason: The nursery is exclusively for chimpanzees.

At Orange Park, the Yale Laboratories of Primate Biology are building up a colony of apes—close relatives to man—of known birth date and recorded life history. Now the young of animals born in the colony are providing for science the second and third generations of animals for whom family and life records are available. With individuals from this third generation enrolled in "nursery school," it will be possible to control factors of training and to a certain extent those of heredity.

Little Alf, now a six-month-old baby, and one of the first in the new nursery, represents the first step taken toward breeding the chimpanzee to specification as a laboratory animal, Dr. Robert M.

Yerkes said in reporting the new nursery. (*Science*)

His father, Frank, is extraordinarily gentle, intelligent and co-operative. The mother, Alpha, daughter of famous old Pan and Dwina, is a docile creature used all her life to cooperating in psychological experiments.

Should little Alf "take after" father and mother, and should he respond to the careful training he will receive in the new nursery, he will be "peculiarly valuable" both as a subject for scientific study and as a future parent for new experimental animals with desirable characteristics.

Incidentally, the new nursery serves a real and necessary purpose in the colony. For apes, surprisingly, are not always good mothers. Neither Alf's

mother, Alpha, nor his grandmother, Dwina, accepted and properly cared for their first babies. Instead they behaved as if surprised and bewildered. The babies might have died had it not been for the intervention of human care.

Science News Letter, June 15, 1940

INVENTION

Hall of Inventions Opens At N. Y. World's Fair

TO SHOW America's inventive progress and to honor the more than 2,000,000 inventors of the past 150 years, a new Hall of Inventions was dedicated on June 7 at the New York World's Fair.

At ceremonies participated in by U. S. Commissioner of Patents Conway P. Coe, and Harvey D. Gibson, chairman of the board of directors of the World's Fair of 1940, the Hall of Inventions and its many displays was formally opened. Watson Davis, director of Science Service, was master of ceremonies.

The display marks the 150th anniversary of the founding of the American patent system. Occupying a prominent location on Rainbow Avenue, many historic inventions are shown. The U. S. government is participating by loaning priceless patent models. One display is the original Selden automobile. In a garden adjoining the building, patented plants will be seen growing, many of them flowers of great beauty.

Science Service will have a continually changing display, showing the latest inventions.

Science News Letter, June 15, 1940



MAMMA

PAPA

Here are Alpha and Frank, gentle, cooperative parents from whom have been taken little Alf, one of the first pupils in the new experimental nursery at Orange Park. These excellent portraits were taken by Dr. Robert M. Yerkes.