

PSYCHIATRY

**Mother to Blame
If Little Babies Cry**

► IT IS a mother's fault if the new baby cries a lot and is colicky at three months. A study showing this was reported by Drs. Ann H. Stewart, I H. Weiland, Allan R. Leider, Charles A. Mangham and Herbert S. Ripley of the University of Washington School of Medicine, Seattle, at the meeting of the American Psychiatric Association in Los Angeles.

Of 18 babies studied with their parents from birth to six months, six cried only for obvious reasons such as hunger or cold. These babies had mothers who felt sure of what to do for their babies and how to do it. After the first few weeks they could decide by watching their babies how much to hold, feed or care for them so as to make them very comfortable.

The other babies all cried a lot, eight of them for as long as seven out of 24 hours, though warm and fed. They usually cried for this long period at the same time each day. Their mothers were inconsistent in their care. Sometimes they fed the babies often, other days they held off feeding the baby even though he acted hungry.

Some days they picked the baby up whenever he showed a little restlessness, other days they ignored the crying for long periods. One mother even put cotton in her ears to avoid hearing her son cry but did nothing for him.

The babies who could anticipate being made comfortable whenever they could see or hear an adult and who cried little also gained steadily in height and weight and did not have vomiting spells. The babies who cried a lot seemed to associate the presence of an adult with discomfort and would begin to cry if they saw one. They did not gain and showed disturbances of digestion, circulation and muscle function.

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ENGINEERING

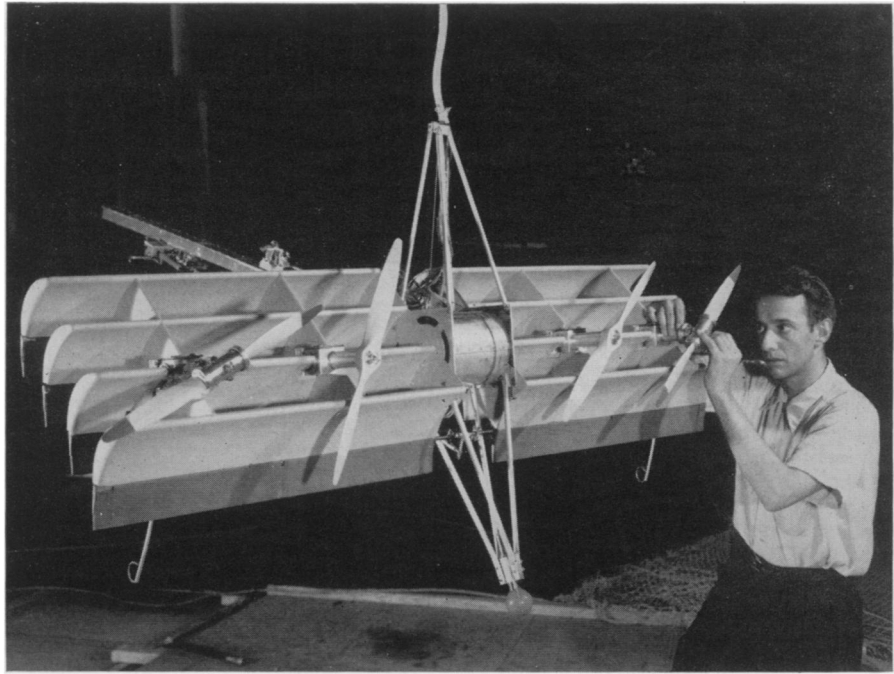
**Car Lights Rival
Pinball Machine**

► THE WELL-DRESSED automobile wears 38 light bulbs, although the 1953 average is only 20. But in 1940, the fashion was about 13.5 lights per car.

Today's car often has lights tucked away in the glove compartment and trunk as well as in conspicuous locations such as the dash panel. Val J. Roper, General Electric automotive lighting engineer, lists these lights:

Three instrument panel and three interior lights; two head-lamps, front turn signals, rear turn signals, license plate, fog, turn signal indicators, courtesy, and back-up lights; one each for head-lamp beam indicator, parking brake indicator, clock, glove compartment, radio panel, ignition switch, map, dome, under hood, trunk, hand spot, cigarette lighter, inner control spot, ash tray, automatic transmission and compass.

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VENETIAN BLIND WING—Close-up view of a vertically-rising airplane model, with a five-foot wing span, shows a design being tested to find an ideal passenger plane of the future.

AERONAUTICS

Planes to Rise Straight Up

To find an airplane that will rise like a helicopter but fly like a plane, aeronautical engineers are testing many designs, including a wing that looks like a Venetian blind.

See Front Cover

► TOMORROW'S SUPER-AIRLINER may take off straight up, yet it will not be a helicopter.

The plane will have two wings on each side, one above the other. Just before take-off, the passenger will see the wings curl downward in the rear. The powerful engines will roar, the plane will buck and heave, then slowly lift itself into the sky—straight up.

The passenger will note that he is hovering over the stamp-sized airport, then the wings slowly will straighten out to resemble present day designs. The big plane will begin to move forward, and soon will be thundering through the skies.

Models of the wings, which somewhat resemble Venetian blinds, now are getting workouts at the National Advisory Committee for Aeronautics' stability and control laboratory, Langley Field, Va.

Another version of the same idea would have the airplane perched on its tail while awaiting passengers. When loaded, the plane would climb straight up, level off and fly conventionally. But this idea does not

seem as desirable for commercial use as the bending-wing idea.

Other research at Langley Field includes problems of transonic flight—the speed range in which one law of sub-sonic aeronautical design contradicts a supersonic law, both “laws” governing the same thing.

The scientists also are searching for answers to the problems of heat generated by air friction at supersonic speeds. Such heat is great enough to make some metals glow red. It spreads itself unevenly over the plane's surface. This weakens the metal dangerously, limits the plane's top speed and could put the United States at a disadvantage if the enemy finds the answer first.

MIG's Wings Rip Off

Wings are ripping off Russian MIG-15's “every day” in Korea due to a design problem aeronautical scientists at Langley Field are trying to lick.

A National Advisory Committee for Aeronautics research scientist told SCIENCE SERVICE that U. S. Air Force planes run into the same problem. But Air Force fighters

in Korea are hanging together better than the Russian jet.

The problem is wrapped up in what NACA scientists call "pitch-up." This is a force that can jerk control of the zooming jet fighter out of the hands of the pilot as his plane climbs sharply. It usually causes the plane to nose upward at an even sharper angle. The wings become severely overloaded and fail. The plane plunges to its destruction.

Swept-back wings of supersonic planes are particularly vulnerable to the vicious pitch-up condition. Both Soviet and American designers are scratching their heads over the problem.

"Fences" are put on the wings to combat pitch-up; the fences are merely thin bands of metal that divide the wing into sections. They minimize the danger of pitch-up, but do not cut it out completely. NACA scientists are searching for better designs and more "gadgets" like the fences that eventually may relegate this problem to aviation history.

A scale model of the world's fastest airplane, the Douglas D-558-2 Skyrocket, mounted for wind tunnel tests in the supersonic pressure tunnel at Langley Aeronautical Laboratory, is shown on the cover of this week's SCIENCE NEWS LETTER.

Supersonic speeds within the ability of the Skyrocket, which has flown 1,238 miles per hour at high altitude, can be duplicated in this wind tunnel. Seen through an open window, the test section of this wind tunnel is almost four and one-half feet square, and is one of the three largest supersonic wind tunnels in the United States.

To carry on its research program, Langley Laboratory has 20 wind tunnels of various sizes, three of which are for studies in the transonic range. The largest has a test section 16 feet in diameter, thus can accommodate relatively large models with extensive instrumentation.

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MEDICINE

Six Man-Like Women Restored to Femininity

► SIX WOMEN who became manlike have been changed back to women again through a simple operation.

Physicians of the Tulane University Medical School, New Orleans, pointed out that in the ovaries of women there exist a few cells like those seen in the male testes. In a few cases, later in life, these cells grow into tumors which actually produce the male sex hormone in large amounts.

But, in six women treated at Tulane, production of this male sex hormone gave them beards, growth of hair on most of the rest of the body, development of male-like muscles of the arms and legs and deepening of the voices.

These tumors were removed. After the operation, the men-women became women again, Dr. William H. Sternberg of Tulane reported.

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LAUNCHING MODEL—This dynamic scale model of a new jet fighter, the Navy's F4D Skyray, was fired into the sky for a supersonic test flight to investigate drag, stability and control.

PSYCHIATRY

Analyze "Mind Washing"

Acceptance of parents' dictates in childhood conditions persons to surrender to superior power, thus possibly accounting for success of propaganda under pressure.

► ANY POW's who accepted Communist propaganda as a result of Soviet "mind washing" techniques were men who, as children, gave up the struggle to be themselves and abandoned themselves to the dictates of father or mother.

Having once been conditioned to surrender, psychologically, to a superior power, they were predisposed to do it again.

This interpretation of why, or on whom, Red "mind washing" succeeds was given by Dr. James Clark Moloney of Birmingham, Mich., at the meeting of the American Psychoanalytic Association in Los Angeles.

Soviet success in extorting "confessions" such as those of Cardinal Mindszenty and Robert Vogeler is based on the same psychological factors.

An interview with Mr. Vogeler, made in October, 1952, by a trained social worker acting for Dr. Moloney, confirmed Dr. Moloney's belief about the basis of the communist interrogation methods.

That Army psychiatrists will be able to unwash or rewash the minds of these

men was suggested, though not stated, in Dr. Moloney's report. Presumably this could be done by methods psychoanalysts use in obtaining "positive transference" in their patients.

The social worker who interviewed Mr. Vogeler for Dr. Moloney noted that he "seemed to relate himself easily and directly toward another person and that he displayed considerable relaxation. She detected no lingering nervousness which might have carried over from his traumatic (injurious) experience," Dr. Moloney reported.

"The interview with Robert Vogeler," Dr. Moloney stated, "presents clear evidence of the type of superego structure with which we are concerned."

(The superego is that part of the mind which acts as a monitor, or as some consider it, as the conscience, over thoughts and actions and to some extent feelings.)

"Several points should be emphasized," Dr. Moloney said. "First, Vogeler's father was German, a nationality group which puts great store by authoritarianism, espe-