

MEDICINE

Two-Headed Babies

One case prior to the Indiana baby is known of a human with two heads surviving. These fused twins, born in 1937 in Russia, lived for over a year and began to "goo-goo."

► AT LEAST one case of survival for a year of a human baby born with two heads, like the one in Indiana, is known to medical science. That "rare being," like the Indiana one, had two heads and four arms. It also had four shoulders and was fused from there down into one body.

These fused, or coalescent, twins were born in a maternity hospital in Moscow, USSR, in 1937. The two-headed baby girl was extensively studied at the All-Union Institute of Experimental Medicine there. The babies, named Ira and Galya, were one year, 22 days old when they died.

Scientists observed that at an early age they stared fixedly at each other and, evidently to get better acquainted, one would reach out to feel the face of the other. If the touch involved scratching with sharp finger-nails, as it sometimes did, a loud cry of pain resounded throughout the ward, first from the scratched twin, then from the scratcher. But then in a minute the wrangle ended and the sisters sucked their fingers peacefully.

After a time such conflicts became rare and the sisters seemed to have reached an understanding. Soviet scientists believed that, since the sisters shared a common chest, crying by one was most unpleasant for the other. Each girl, perhaps through a conditioned reflex as the Soviet scientists theorized, learned to restrain all movements that caused her discomfort even though it would come through her sister.

Before the end of their short lives, the babies were able to hold up their heads well and to wave their tiny hands and hold toys firmly.

Because of the small size of their legs, their doctors did not think they would ever walk, though prolonged special training for walking had been planned for them at an older age.

Shortly before they died at the age of one year, they began to utter sounds comparable to the "goo-goo" of a six-month-old infant. This showed that their speech function was very much retarded, although the development of their nervous reactions suggested that they would have talked if they had lived longer.

The character of their nervous activity was distinctly individualized and they had "temperament." Ira was vociferous, energetic and strong, while Galya was a great deal quieter, somewhat dull and feeble. She rarely smiled and cried a good deal.

The Soviet scientists apparently had not thought of trying to separate the babies. They were given great care and were ob-

served, but not experimented on, the object being to learn as much as possible about the physiology of sleep, appetite, pain and certain diseases without risking the health or comfort of the twins.

In spite of "trials and tribulations," a frail constitution and many ailments, the twins gained and a few days before their death, the scientists felt every assurance that they would survive.

In the 15 years since these twins died, medicine and surgery have made great strides which may give the Indiana boy fused twins a better chance for the future.

A two-headed baby girl born in England in 1946 lived only 50 hours. In that short time, doctors found the two heads breathed independently and had different pulse rates, indicating two sets of lungs. Because the two heads fed separately, the doctors believed this being had two stomachs.

Another two-headed baby, with a third arm on the midline of its body, and two hearts and two stomachs, was reported from Detroit in 1930. This baby died at birth.

Cats with two heads, calves and deer with two hind ends, a big two-headed trout,

two-headed turtles and snakes, double or triple chick embryos on one yolk and two-headed or four-legged chickens have also been reported.

All these double monsters, as well as identical twins, originate from one single egg. In most cases what happens is that the single egg forms two separate centers of organization in close proximity to each other. But when these begin to expand and differentiate, they fuse instead of continuing as separately organized individuals, such as identical twins.

Fused twins may be loosely conjoined, as Siamese twins, or they may be joined in many odd ways, it appears from medical reports. One of these odd fusions gave a monster four legs and four arms but a fused chest and two heads fused so that each face was made up of two halves. One half belonged to one trunk and the other half face to the other trunk.

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TECHNOLOGY

Robot Arm Can Make Cake

► A 15-TON mechanical arm that can make cakes, tie iron bars into knots and pour glasses of water has been created to perform Herculean tasks where men could not survive.

Despite its culinary prowess, the crane-mounted O-Man, will draw upon its mighty strength in the General Electric laboratory at Schenectady, N. Y., where nuclear aircraft engines are under study for the Air



JUST A SMALL PIECE, PLEASE—This is the mighty-muscled O-Man, the newest mechanical arm designed to handle radioactive materials in areas dangerous to man. It is sensitive enough to slice this cake.