

ENGINEERING

Giant Dams in India

► IN THE MIDST of the world's highest mountains on the roof of India, a river's course will be changed.

To control disastrous floods, two massive dams are being built for power and irrigation.

Along the Brahmaputra, India's 1,800-mile sacred river, soil experts are tackling the problem of serious erosion made worse by floods last year. And in Kashmir, where India touches Russia, Tibet and Afghanistan, the provincial government has embarked upon a plan to divert the Jhelum River near the capital city of Srinagar for 25 miles, turning it into a straighter bed.

The twin-dam project of Bhakra and Nangal in the Punjab would make even Kipling blink. At a cost of more than \$266,000,000, these massive dams in the shadow of the

Himalayan Shiwalik mountain range will irrigate a new farming area larger than the state of Connecticut, as well as provide 4,000,000 kilowatts of electrical power for new Indian industries.

The Bhakra dam will be 680 feet high, second only to Hoover Dam on the Colorado River (726 feet). Three tunnels are being blasted through the sides of a mountain gorge to control the Sutlej River. Water will fall 100 feet to power giant, bomb-proof turbines.

The irrigation network connected with the dams will involve 2,600 miles of digging before completion by 1956 or 1957. From it, the Indian government expects 1,300,000 more tons of vitally-needed food each year, and millions of bales of cotton.

Science News Letter, January 20, 1951

MEDICINE

Radiation Protection

► PROTECTION against usually fatal doses of radiation has been given two-thirds of a group of dogs by a special cross-transfusion of blood in experiments by Drs. Peter F. Salisbury, Paul E. Rekers, Joseph H. Miller and Norman F. Marti of Cedars of Lebanon Hospital Institute for Medical Research in Los Angeles.

The cross-transfusion was given within four hours after the dose of X-rays. Of 19 dogs not given the cross-transfusion, 16, or 84%, succumbed within eight to 25 days. But only two of six cross-transfused dogs, or 33%, died eight days after irradiation.

The four transfused dogs ate well, were

moderately active, had no diarrhea or evidence of septic poisoning or hemorrhage. This was in marked contrast to the non-transfused animals. These and the two transfused ones that died showed marked depression of blood formation, widespread hemorrhages and often signs of sepsis.

The cross-transfusion was done by double-bored rubber tubes inserted into a vein of a donor dog and the recipient dog. The blood flowed from one to the other simultaneously and continuously for two hours. The dogs were given novocaine to prevent any pain. Details are reported in SCIENCE (Jan. 5).

Science News Letter, January 20, 1951

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