

## MEDICINE

# Anti-Polio Human Milk

An anti-polio substance has been found in the human mother's milk. It has also been found in the milk of some cows, but the majority of them do not have it.

► DISCOVERY of an anti-polio substance in human mother's milk was disclosed in Baltimore by Dr. Albert B. Sabin of the Children's Hospital Research Foundation of Cincinnati.

The substance has also been detected in milk from some individual cows in certain herds, but the majority of cows do not have it.

The nature of the anti-polio substance is not yet known. It is not related to the presence of antibodies, or polio fighting substances, in the blood. When mother's milk containing the substance is pasteurized the anti-polio material is not destroyed. Dr. Sabin does not know whether pasteurization destroys it in cow's milk.

The substance has been found in every sample of mother's milk so far examined up to five days after the birth of the mother's baby. It is present in 75% of mother's milk from one month to 340 days after the baby's birth.

This anti-polio stuff in mother's milk probably explains why there is no paralysis

although polio infection is widespread in some regions of the world, such as the Far East where babies are nursed by their mothers until the age of three or four years. It also explains why the children who did not get paralytic polio during the outbreak among Canadian Eskimos recently

## ENGINEERING

# Robot Does Human Work

► A MECHANICAL hand, operated by human hands manipulating switches within a protection booth, is performing delicate tasks in a dangerous radioactive area at the Hanford Works of the U.S. Atomic Energy Commission in Richland, Wash.

The mechanical hand is a part of a five-ton machine on wheels that resembles a railroad handcar, with a small-caliber gun mounted on it. The gun-like part is a telescoping arm, with double clamps at the

were the babies still being nursed.

The substance was mixed with infantile paralysis virus and injected into mice brains. None of the animals got paralytic polio.

Calling the discovery an important lead in polio research, Dr. Sabin said he is now working to find what the substance is and then will try to find some way of making it practically useful. "An anti-polio certified milk," he said half humorously, is the objective of the research.

Discovery of this anti-polio substance in milk was announced at the meeting of the American Pediatric Society, Dr. Sabin told members of the Society of American Bacteriologists.

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end. The arm can be extended, shortened, raised or lowered by remote control. Its hand is capable of a wrist-bending motion, rotation and gripping.

The device is a development of the General Electric Company, Schenectady, N. Y., which operates the Hanford plant to produce plutonium for atomic energy applications. The operator, in his protected booth, can see some of the work being done by direct sight and part by mirrors. Also the control panels are equipped with lights which indicate the position of the mechanical hand when it is impossible for him to see the work otherwise.

Science News Letter, May 27, 1950

## INVENTION

# Lapel Handkerchief Faked; No Work in Brushing Shoes

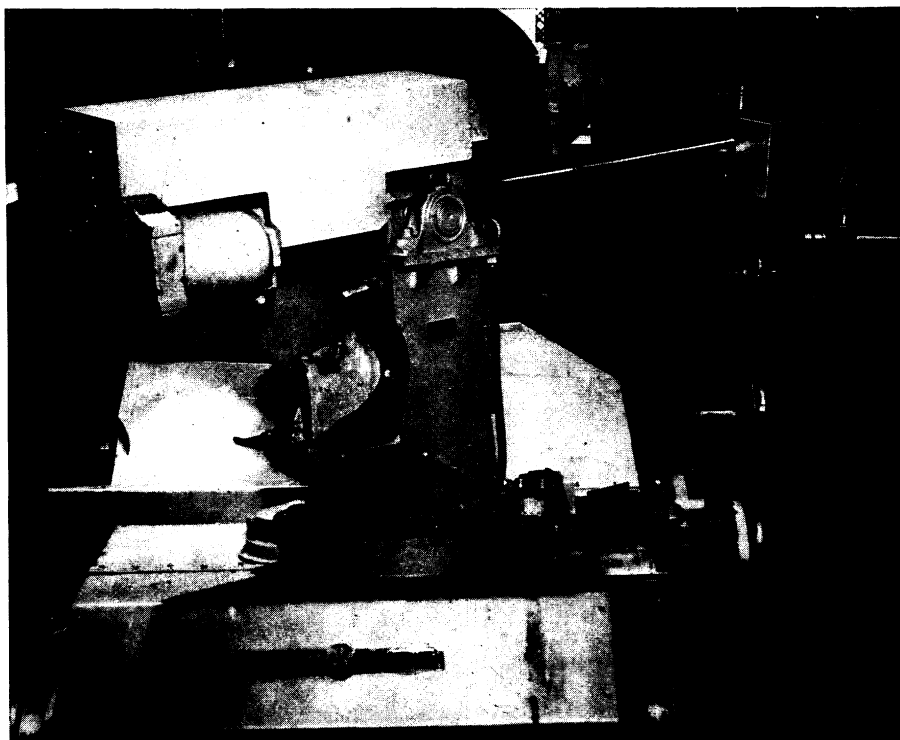
► THE "well-dressed" man can now have an imitation handkerchief that never will get disarranged in the lapel pocket of his coat and he can brush his shoes without soiling his hands or even stooping over.

Thanks are due to two ingenious inventors who received patents from the government. Donald A. Ripple of San Francisco is the inventor of the imitation handkerchief and he received patent 2,507,049. Frederick E. Hummel, Chicago, earned patent 2,507,407 for a foot-operated shoe-brushing device.

The carefully folded handkerchief in the lapel pocket, worn for decoration and not for use, easily gets disarranged. This imitation can not. It is a flat square of fabric which has a decorated top edge.

The shoe-brushing apparatus has a platform on which the foot is placed. By foot-pressure and a spring a center part is pumped down and up. This pumping gives rotary motion to a number of brushes to clean the shoe.

Science News Letter, May 27, 1950



**ONE-ARMED ROBOT**—One of the five-ton "tool dolly's" jobs at Hanford is turning valves. The valve-turning attachments are equipped with electric "feelers." The apparatus moves about its work area on tracks.