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has had an exclusively rural environment. Paul C. was brought up as an only child, while Paul O. had a younger foster-brother and -sister.

Paul C., the city-reared, proved superior in the tests of general mental ability and educational achievement. Paul O. beat him, however, in the arithmetic section of the Stanford test. In the temperament and other personality tests, both brothers reacted about like, both being rather slow and deliberate, rather careful and interested in details, and only moderately aggressive. There were one or two marked differences, however; Paul O. proved more rapid in making decisions and more resistant to opposition than Paul C., but less marked in his reaction to contradiction.

So it runs through the whole series of cases. The separated twins, not having each other around for mutual influence and imitation, often with sharply contrasted social backgrounds and economic experiences, ceased in many respects to be as like as the proverbial peas. The pod was broken, and the peas became different.

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Science News Letter, September 4, 1937

● RADIO

September 7, 4:15 p.m., E.S.T.
AMONG THE BEDUINS OF NORTH ARABIA—Henry Field of the Field Museum of Natural History.

September 14, 4:15 p. m., E.S.T.
MENTAL HYGIENE OF WORK—Dr. George K. Pratt, psychiatrist of New York City.

In the Science Service series of radio discussions over the Columbia Broadcasting System.

MEDICINE

Free Blood Transfusions Made Possible by Red Cross

FREE blood transfusion service for patients suffering from dangerous loss of blood is the latest peacetime life-saving activity sponsored by the American Red Cross. Started by the Augusta, Ga., chapter, the movement is now spreading to other communities.

Bane of emergency hospital surgeons has been the difficulty of getting plenty of blood of the right type quickly to save lives threatened by blood loss. Autos crash, the bleeding victim is rushed to the operating room, his blood is "typed" and two pints of the requisite type are found to be needed at once. Then there is a hazardous delay, during which the patient may die, while a blood donor is located whose blood is of the corresponding kind. Adding cost to tardiness, blood donors usually charge high prices per pint—\$40 in one eastern metropolis.

All this is different under the plan recently put into successful operation by the Augusta, Ga., chapter of the American Red Cross. In close cooperation with physicians of the University of Georgia Medical School and Hospital, the Chapter has rounded up 600 potential heroes and heroines, given them physical examinations, recorded their blood types, turned over names, addresses and telephone numbers to the hospital. All 600 agreed to give blood free. At night, sirening police cars taxi donors from home to hospital.

Already the free service in the life saving fluid has snatched many an accident victim and maternity case from the edge of the grave. The chapter chairman himself, by chance, was the first donor called.

Science News Letter, September 4, 1937

INVENTION

Novel Oil Tanks Keep Ships From Rolling in Heavy Seas

OIL has been poured on raging seas to calm turbulent waves which threaten shipwreck. Now comes Edward R. Carroll of Brooklyn, N. Y., with an invention which is intended to do the same thing but keeps the oil in the ship's tanks.

The invention provides an ingenious control of the swishing of the oil inside the tanks which counteracts pitching and rolling of the ship. Used on battleships, it would keep the ship steady so that the aim of its guns would not be spoiled.

Carroll's invention, described in a patent (No. 2,077,143) recently granted to him, is designed for ships with engines that burn oil for fuel, such as Diesel engines. The ships would be provided with double bottom and wing tanks built in the sides. In these the oil is stored.

Unlike the conventional storage tanks, these tanks and the double bottom are divided up into long cells by iron plate-like partitions. Valves in the partitions can be controlled from a central station.

Valves Control Flow

By opening and closing the valves, flow of oil from one cell to the other is controlled.

Whenever the ship begins to roll, the valves distribute the flow of oil so as to act as a counterweight to the roll. Thus, when the ship tips to starboard, all the oil cannot move instantly toward that side. It is held on the port side and, acting like a person on a see-saw, helps to right the ship.

Similarly any synchronism between waves and motion of the ship which leads to violent rolling would be broken up. Such synchronism increases the roll to the point where it endangers the ship. It is brought about by the same principle involved in swinging. Just as a slight push at the proper moment sends the person in the swing higher into the air, so waves in synchronism with the roll of the ship, can cause it to roll and pitch more and more steeply.

Science News Letter, September 4, 1937

In the Balkans, tea-like beverages are made from a wide variety of native plants.

Although tuberculosis deaths have lessened in Britain, this disease still rates next to cancer as a killer.

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