

MILITARY SCIENCE

Soviet Navy for Defense

Although the Russian navy is tied to the shore at present, it may venture out some day, expert believes. It has historically always been an adjunct to the army.

➤ RUSSIA's navy is more of a defensive weapon than an offensive weapon at present, but may not remain so permanently. This is the opinion of Lt. Comdr. Burke Wilkinson, USNR, set forth in the technical magazine, *ORDNANCE* (March-April).

His report is published as the U. S. Navy is getting a new line on some phases of the Soviet navy, due to the return to the U. S. of the old cruiser *Milwaukee*, which has been operated by the Russians since 1944.

Even the possession of some of Germany's famous "Schnorkel" submarines, plus others which they may have built with the aid of German naval experts, will not release the Soviet navy from its ties to the land for some time to come, in Comdr. Wilkinson's opinion.

Historically, he points out, the Russian navy has always been an adjunct to the army. From the days of Peter the Great on, Russian ships have acted more as mobile extensions of static shore fortresses, rather than as independent, far-ranging fleets. This subordination of navy to army has even gone to the extent of arming Russian warships with guns of land-artillery calibers, when they might readily have been made more powerful by mounting heavier ordnance.

Regarding the adaptability of Russian men to modern ships and their maintenance, Comdr. Wilkinson states he has found conflicting testimony. Some of his informants state that Russian crews function smoothly and efficiently, keeping up the tradition of a "taut ship". Others declare that they are not very apt in learning the enormous amount of mechanical detail that goes into the making and handling of a modern warship, though they are exceedingly determined and persistent. One of his correspondents declared that running a Soviet

shipyard would be "the first step to an insane asylum," because of the double handicap of red tape and poor labor.

There seems to be this much agreement, however: that the Soviet navy of today shows a vast improvement over the "bewildered and barnacled" ships of the old Czarist fleet that were trapped and sent to the bottom by the Imperial Japanese Navy at Tsushima strait in 1905.

Concludes Comdr. Wilkinson: "It would, perhaps, be a mistake to think of the Big Bear as a long-distance swimmer yet awhile, but he's learning a lot of new tricks. He's dabbling his paws in those four deepwater playpens of his. One of these days he may really go swimming on his own."

Science News Letter, April 2, 1949

BIOCHEMISTRY

Radioactive Calcium Used In Study of Egg-Laying

➤ A HEN doesn't finish putting limy material into the shell of an egg until a few minutes before she lays it. This was one of the things demonstrated in experiments with radioactive calcium at the University of Florida in Gainesville, Fla., reported in the journal, *SCIENCE* (March 18), by Dr. C. L. Comar and Prof. J. Clyde Driggers.

They gave a hen a measured dose of calcium chloride solution, containing radioactive calcium from the Oak Ridge atomic piles. Fifteen minutes later the hen laid an egg. Analysis showed a little of the radioactive calcium already present in its shell—seven hundredths of one percent. Neither yolk nor white contained any of the "tagged" calcium.

An egg laid the following day had in its shell about a third of all the radioactive calcium in the initial dose. In this egg both yolk and white showed that the radioactive atoms had reached them. The white contained 70 times as much of the calcium as did the yolk; it has long been known that the yolk is completed first and the white put around it later. In the egg laid on the second day, however, the yolk had got its share, and actually contained more than the white.

The experiment was continued for three weeks, with the eggs showing a diminishing content of radioactive calcium. At the end, the hen was killed and her bones, flesh and other tissues analyzed. A good deal of the calcium had been stored in the bones, with smaller concentrations elsewhere in her body.

Science News Letter, April 2, 1949

Science Service Radio

➤ LISTEN in to a discussion on "Latest Progress in Atomic Energy" on "Adventures in Science" over the Columbia Broadcasting System at 3:15 p.m. EST, Saturday, April 9. Dr. Robert F. Bacher, member of the U. S. Atomic Energy Commission, formerly professor of physics at Cornell University and Associate Director of Los Alamos Laboratory, and Mr. Watson Davis, director of Science Service, will conduct a query and answer program on the recent developments in atomic energy.

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Shetland woolen goods are noted for their soft texture; this is said to be due to the fact that the sheep are not sheared but plucked, the plucking being done when new wool is beginning to grow and the old wool is ready to drop off.

Just 100 years ago this year the first *medical degree* granted a woman in the United States was awarded to Dr. Elizabeth Blackwell; in 1948, out of a total of 5,543 medical graduates, 392 were women.

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