

ASTRONOMY

Brighter Than Our Sun

The new star in the constellation of Aquila, the Eagle, is 80,000 times as bright as our sun. It is 8,300 light years away.

► THE NOVA or new star recently discovered in the constellation of Aquila, the Eagle, (*See SNL*, Sept. 8), is 80,000 times as bright as our sun. It is 8,300 light years, or about 49,000,000,000,000,000 miles away, as reported telegraphically to the Harvard Observatory from the Dominion Astrophysical Observatory at Victoria, B. C.

These values are based on an examination of the spectrum of the nova by Dr. C. S. Beals, Dr. J. A. Pearce, director of the observatory, stated in his wire. The Victoria spectra show strong emission bands that indicate the presence of hydrogen and of ionized iron as well as other elements.

Two shells of matter ejected from Nova Aquilae '45 are moving with velocities of about 1,300 and 800 miles

per second, respectively, measurements of hydrogen lines of the spectrum indicate.

The photographic magnitude of the nova was determined at the Oak Ridge Station of Harvard Observatory by two young women students, Anne Hagopian of Radcliffe College and Constance Sawyer, of Smith College. Both were winners of scholarships in the Science Talent Search, conducted annually by Science Service. (*See SNL*, Mar. 18, 1944, and Mar. 13, 1943). Their data indicate that the brightness of the nova on the first few days of September remained practically constant at magnitude 8.5. A Harvard plate taken on Aug. 27, prior to discovery of the nova, gives the magnitude of the nova as 7.2 on that date, according to Dr. S. Gaposchkin.

Science News Letter, September 15, 1945

GENERAL SCIENCE

Russians Follow Our Lead

Their scientists look to us for leadership in reconstructing the Poulkova and Simeis observatories. American models will be used.

► RUSSIAN scientists frankly plan to follow the American lead in postwar reconstruction of their enemy-battered institutions, Dr. Harlow Shapley, director of the Harvard College Observatory and president of Science Service, stated in an address at Boston. Dr. Shapley recently returned from Russia, where he was a member of a delegation of American research men who participated in the 220th anniversary of the founding of the Academy of Sciences of the USSR.

The first thing you notice about a Russian scientist, said Dr. Shapley, "is his complete friendliness. You feel at home with him, and with his problems and plans, from the first moment of your acquaintance. The second characteristic that holds the memory is the quiet ambition of the Russian scientist to do a serious and important job."

That Russians now look to America for leadership in science does not mean, however, Dr. Shapley continued, that

they expect to do so permanently, or that they have always done so. It was even the other way about, at one time. America's first really big telescope, a 15-inch refractor installed at Harvard College Observatory just a century ago, was an exact duplicate of the one built for the Poulkova Observatory near what is now Leningrad. This observatory, with its more modern equipment, was completely demolished by German bombs and shells during the siege of Leningrad, because it stood only a mile from the front lines on a hill that had to be used as an observation point by the Red Army.

The second of Russia's two great astronomical observatories, at Simeis in the Crimea, was also destroyed, but without any color of tactical necessity, the speaker added: "Apparently it was largely burned, without any military operations in the immediate vicinity, but not until truckloads of scientific equipment had been carried off to Germany. In other

words, the place was looted and then largely destroyed. Russian astronomers have heard that the instruments that had been taken to Germany were evidently too badly damaged to be worth returning to Russia, except possibly 'for exhibition purposes' as one of them put it."

In the reconstruction of both these observatories, American models will be followed in the building of telescopes and other instruments; but the whole process is bound to be slow. You cannot hope to rebuild a great scientific institution as quickly as you can an apartment house or a factory, the speaker commented.

Dr. Shapley's address was broadcast over stations of the Columbia Broadcasting System.

Science News Letter, September 15, 1945

PUBLIC HEALTH

Program Urged to Study Rh Blood Incompatibility

► THE dramatic achievements of medical skill in saving the lives of babies threatened with death because the Rh factor in their blood is incompatible with the blood of their mothers may be followed by the tragedy of having a living idiot instead of a dead baby. Calling attention to this, the *British Medical Journal* (Aug. 11), editorially urges an extensive program of cooperative research in this field.

Drs. R. R. Race and A. E. Mourant, of the Galton Laboratory Serum Unit of Cambridge, England, have already offered their services and facilities for such a program, it was announced.

The disease caused by Rh incompatibility, erythroblastosis fetalis, is responsible for more deaths than is any other inherited condition—perhaps for more than all of them put together, the editorial states. But studies recently made in the United States show that a much larger percentage of feebleminded children are Rh positive with Rh negative mothers than would be expected on the basis of statistics for the whole population. This indicates that damage to the baby's brain may occur before birth.

"Rh incompatibility," the editorial declares, "raises a problem in negative eugenics second to no other . . . it seems futile to suggest that the 15% of women who are Rh negative should have 85% of the male population barred to them; yet the dangers are relatively great. It is clear that more research is urgently called for along a number of different lines."

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