

authors refer to the previous work of Sir Norman Lockyer at South Kensington, who showed that in the case of Nova Persei its bright-line spectrum was composed for the most part of α Cygni, or enhanced lines. Thus the origins of most of the nova lines at this stage of its history will now be considered as more definitely settled. The paper is accompanied by an excellent plate showing the nova spectrum and comparison spectra.

RADIAL VELOCITIES OF STARS WITH THE PRISMATIC CAMERA.—Some time ago Prof. E. C. Pickering suggested a means of determining the radial velocities of stars from prismatic camera photographs by inserting in the optical train a medium which produced a sharp absorption line in the stellar spectrum. Mr. R. W. Wood found out that the absorption line of neodymiumchloride at $\lambda 4273$ A.U. in a weak solution was of prominent sharpness. Prof. Schwarzschild has now used this filter in connection with an objective prism, the instrument being a Zeiss triplet of 150 mm. aperture and 1494 mm. focal length, and a prism of the same aperture giving a dispersion from H γ to K of 10.3 mm. He placed the cell a few millimetres in front of the photographic plate, the former being about 8 mm. in thickness, and containing a weak solution, the proportion being 1 to 6. In *Astr. Nachr.*, No. 4646, he gives an account of the results he secured, using the star α Coronæ borealis, the spectrum of which is not very favourable for the research, as the lines are hazy, though the orbit is well known. At least four spectra near each other were taken on the plate, and photographs were secured on eighteen evenings. Prof. Schwarzschild describes in detail the methods of measurement and reduction, and states that the probable error of the mean of six spectra in an evening is ± 5.7 km./sec., and the probable error of a single spectrum ± 13 km./sec. He points out that Mr. Jordan, with a photograph taken with a slit spectroscope, obtained probable errors of 4.2 to 5.5 km./sec., according to the kind of plate used, and Mr. Cannon a value amounting to ± 5.4 . The observations corroborate Jordan's period of 17.36 days.

METEORITE FROM KANSAS.—A reprint from the Proceedings of the U.S. National Museum (vol. xlv., p. 325) contains an account of a newly found meteorite from near Cullison, Pratt County, Kansas, by George P. Merrill, head curator of geology of the National Museum. The stone is described as having struck the earth in December, 1902, but it was not found until 1911. Mr. Merrill was thus confronted with the doubt as to whether the stone was the one actually seen to fall, but he found that a thin section indicated the meteoritic nature of the stone at once. Besides showing special interest from the diversity of the chondritic forms which it carried, another feature was a somewhat indistinct wavy banding visible only on a polished surface of a section. The paper, besides giving illustrations of the stone as found and polished surfaces, contains chemical and mechanical analyses of the stone, and the following is the composition of the stone in bulk, omitting percentages of substances less than unity:—

	Per cent.		Per cent.
Silica ...	35.30	Soda ...	1.80
Alumina ...	4.24	Sulphur ...	2.18
Ferrous Iron ...	8.38	Nickel ...	1.80
Magnesia ...	23.63	Iron ...	21.27

ROYAL ASTRONOMICAL SOCIETY OF CANADA.—The January-February number of the Journal of the Royal Astronomical Society of Canada (vol. vii., No. 1) contains much interesting reading, and attention is

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directed especially to two communications. The first is the address of the president of the society, Prof. L. B. Stewart, delivered at the annual meeting, and has for its title, "The Structure of the Universe." In this he brings together most of the more important recent researches relating to this subject, including such investigations as deal with star streams, proper motions of separate groups, absorption in space, &c. The second article is a delightful account of Mr. John A. Brashear's visit to the home of Dr. Thomas Dick, the Christian philosopher and astronomer. Mr. Brashear came over in 1911 for the fifth centenary celebration of St. Andrews University, and after listening to the opening addresses, as he says, "I could not resist the temptation to slip away" and make a visit to Broughty Ferry, near Dundee, the home of Dr. Dick. Mr. Brashear is full of enthusiasm of the reception he received at the hands of the present owners, and brings together some very interesting notes relating to episodes in Dr. Dick's career; numerous illustrations accompany his communication.

THE ERUPTION OF THE KATMAI VOLCANO, ALASKA, ON JUNE 6, 1912.

IN *The National Geographic Magazine* for February of the present year there appears a very interesting account of the eruption of Katmai, in Alaska, which commenced on June 6, 1912. The Katmai Volcano (7500 ft.) is one of ten or twelve more or less active volcanoes known to exist in the Alaskan peninsula, though probably a still greater number occur in the adjoining Alaskan islands. The report is furnished by Mr. G. C. Martin, who was dispatched by the National Geographic Society of Washington to collect information as soon as the news of the eruption arrived by telegraph. This report, which is illustrated by a map and numerous photographs, shows that the outburst resembled in all its main features that of Krakatoa in 1883, though, happily, owing to the very sparse population of the district, the damage done was comparatively small, and no human lives were lost. No lava-streams are recorded as having been seen, but the eruption, which included three outbursts of excessive violence within two days, consisted in the discharge, first of pumice, and afterwards of dust of gradually increasing degrees of fineness. In the sea, twenty miles from the volcano, floating pumice was accumulated to such an extent that men could walk upon it. At Kodiak, 100 miles from the volcano, dust fell, causing complete darkness for sixty hours, and accumulated to a general depth of 10 to 12 in. Roofs were broken down by the weight of this dust, and houses wrecked by the avalanches of it which descended from the hills. Dust was recorded as having fallen 900 miles away, and if vessels had been in those seas it would probably have been noticed much farther off. Probably great changes were produced in the volcano itself, for one observer declared that half the mountain was gone.

This report is followed in the same journal by an article from the pen of Dr. C. G. Abbot, the director of the Astrophysical Observatory of the Smithsonian Institution, Washington. From observations made by himself in Algeria, where he happened to be at the time of the Katmai eruption, and from communications he received from Mount Wilson, in California, Mount Weather, in Virginia, and other localities in different parts of the globe, he infers that a similar world-wide diffusion of the fine volcanic dust took place as was observed in the case of the Krakatoa eruption, and he discusses the question, "Do Volcanic Explosions Affect our Climate?"