

Teachers," by K. M. Curwen, with an introduction by Dr. G. W. Reid, County Medical Officer of Health and School Medical Officer for Staffordshire. Messrs. Longmans and Co. will issue shortly "Canning and Bottling Fruit and Vegetables," by Mrs. Goodrich, with a preface by Prof. F. W. Keeble. The work deals with simple methods of preserving, such as bottling in jam-jars, drying and salting, and with all up-to-date methods of preserving fruit without sugar.

OUR ASTRONOMICAL COLUMN.

THE NEW STAR IN AQUILA.—The new star in Aquila has continued to decrease in brightness at about the same rate as Nova Persei of 1901. On June 21 and 22 it was observed to be about 3rd magnitude, and its reddish colour had become quite pronounced. Prof. Fowler found that the hydrogen lines were still very brilliant on these dates, and that the most remarkable change since June 16 was the appearance of a broad bright band in the blue, about $\lambda 464$. The enhanced lines of iron in the green were visible, and also the group of bright and dark lines about the position of D. There was also a dark line near $\lambda 615$, which had not been noted in the earlier observations, and the continuous spectrum had diminished in brightness. The principal features of the spectrum were readily observed with a Zöllner star spectroscope on a 3-in. telescope.

Observations of the spectrum of the nova communicated by Mr. Harold Thomson are in general agreement with those of Prof. Fowler, but attention is also directed to a relative brightening of the line $\lambda 532$ as compared with that at $\lambda 517$.

In the *Times* for June 19 Father Cortie gave a brief account of a remarkable photograph taken with the prismatic camera at Stonyhurst on June 15. The exposure was from 10.35 to 11.35 G.M.T., and the photograph appears as if the spectrum had suddenly changed at about 11.5, and as suddenly returned to its original state about five minutes before the end of the exposure. The modified portion of the spectrum shows a second set of bright hydrogen lines, strongly displaced towards the red sides of the normal lines, which are also present, and an enormous receding velocity would be required to explain the displacements. Prof. Fowler has had an opportunity of examining the photograph, and informs us that there are certain features which suggest that an explanation may be found in an instrumental displacement. Apart from this, however, the photograph is a valuable record of the spectrum on the date in question. The bright hydrogen lines consist of three or more components, and there are numerous ill-defined fainter lines, besides several apparent dark lines. The chief features appear to be generally similar to those of Nova Persei at a corresponding phase.

DISCOVERY OF A COMET.—The first cometary discovery of the year was made by Mr. Reid at the Cape of Good Hope. It appears as a faint round nebulosity, and is moving south $48'$ daily. Its position, June 12-25 G.M.T., was R.A. 9h. 16m. 36s., S. decl. $8^{\circ} 10'$. It is invisible in northern latitudes, setting shortly after sunset.

BULLETINS OF THE HECTOR OBSERVATORY, N.Z.—From recent bulletins of the Hector Observatory, Wellington, N.Z., it would appear that the Government astronomer, Mr. C. E. Adams, is endeavouring to make the institution as useful as possible to the general public. Bulletin No. 10 gives tables of the rising, meridian passage, and setting of the moon during the present year at places on the standard meridian (12h. east of Greenwich) in south latitudes 35° , 40° ,

and 45° , and it is shown by examples how the times for other places may be obtained by interpolation. The latest arrangements adopted for the time service are explained in Bulletin No. 11. The standard mean-time clock has been fitted with contacts, by which signals are given at the beginning of every hour of G.M.T., and repeated after the lapse of 1, 2, 4, and 5 minutes in each case. A similar system is adopted in connection with the wireless signal sent out at 22h. G.M.T. Another bulletin, issued in February, gives particulars of the occultation of a 6th magnitude star by Venus on March 3, according to calculations made by Pte. Arthur Burnet, secretary of the Leeds Astronomical Society.

THE BRITISH SCIENCE GUILD.

THE twelfth annual meeting of the British Science Guild was held at the Mansion House on June 19, the Lord Mayor presiding. The adoption of the annual report was moved by Prof. R. A. Gregory, and seconded by Sir Edward Brabrook. After alluding to the loss sustained by the guild in the death of Sir Alexander Pedler, for many years hon. secretary, Prof. Gregory gave a summary of the work of the various committees on education, the metric system, and the dyes industry. The last-named emphasised the strong financial support given to the German dye industry, aggregating more than 50,000,000*l.*, whereas the total capital of the colour-producing firms in the United Kingdom is only about four millions. In this country the chief need is to survey the great variety of products under manufacture, allocating the work in such a way as to avoid duplication of plant and effort. Reference is made in the report to the British Scientific Products Exhibition to be held at King's College, London, for four weeks during August-September. It is hoped that the exhibition will be helpful in illustrating the need for scientific research in relation to various arts and industries, and the results already achieved in this country in this direction since the war.

After the adoption of the report, an address was given by Lord Sydenham, the president of the guild, on "Education, Science, and Leadership." Our projects of national reconstruction, it was remarked, tend to accentuate industrial and commercial efficiency. But there are other problems the solution of which will require an enlightened democracy and instructed leadership. Our education, besides aiming at material efficiency, must inspire ideals. Lord Sydenham showed, from data relating to universities in this country, in Germany, and in America, that facilities for higher education are still not what they should be. At present only one child in a thousand from the elementary schools reaches a university. National education should provide equal chances for natural talent wherever found.

A paper by Sir Algernon Firth was read, in the absence of the author, by Sir Ronald Ross. The author sought to dispel the impression that manufacturers were not sufficiently alive to the need for research work in their industries, and quoted from the reports of a Board of Trade Sub-Committee to show the efforts being made to bring this matter before the notice of the authorities. Industries were not infrequently hampered owing to lack of knowledge in Government departments. For example, the growth of the dye industry was checked at the start by the refusal of duty-free alcohol. Besides developing facilities for research, it was necessary to provide inducements for youth to make use of them. In this respect we might learn from the enlightened attitude towards college education prevalent in the United States.