

sterling character as Dr. Voelcker over so many years. In no one of his letters was ever a harsh or bitter judgment. He would always find something good to say even of one whose actions he might in some respect criticise. He reminded one of the dear old lady who when the opinion was expressed that she would find something good to say of the devil, exclaimed, "well at any rate he is very busy".

Dr. Voelcker was always eager to see justice done to good work. He was glad when the name of Munro was mentioned as the discoverer of the principle of "activation" in connection particularly with intensive nitrification. He remembered Munro as a modest worker who never sought the lime-light and was better at laboratory research than at its technical application.

Of Dr. Harold Mann's loyalty and hard work as his second in command at Woburn he could not speak too highly although he had little real sympathy with his "leftist" politics, describing him in this connection as a "caution".

He admired the fighting qualities of his friend and contemporary, Professor H. E. Armstrong, but was quite equal to standing up to him in argument if the occasion seemed to require it. He found a bond of agreement with him in a distrust of overmuch theory and a respect for honest craftsmanship. This attitude of mind made him doubtful of the value placed upon some modern developments in agricultural research, particularly the application of statistical methods to small plots. He complained that it was impossible to *show* the farmer the result, *e.g.*, of manurial trials.

Throughout, however, he was, as has been shown, appreciative of all that was good and eagerly maintained his many interests and activities to the end.

Of him it might well be said in the splendid elegiac line of Kipling,

"He did his work and held his peace
And had no fear to die."

GILBERT J. FOWLER.

Madras,
February 14, 1938.

Metrogon.

A NEW photographic lens, called the Metrogon, which enables a single photograph taken straight down from an airplane to show three times as much area as has previously been possible from the same altitude, is the latest achievement of the BAUSCH & LOMB OPTICAL Co.

The importance of the lens in aerial photography and mapping work cannot be overemphasized. It had previously been necessary to fly higher in order to cover more ground but the haze and other factors introduced by high altitude reduced sharpness and accuracy in aerial mapping. With the new Metrogon fitted to the camera, a plane can photograph three times as much ground without flying any higher or farther than has been necessary with the average lens previously used.

While lenses covering wide angles are not

new, the combination of very wide angle with sharpness and freedom from distortion at the relatively high speed of $f: 6.3$ is regarded as an optical achievement. The Metrogon covers 90° of field and has a focal length of five and a quarter inches.

So clear is the definition it gives that a photograph made from a height of one mile can show separate railroad ties anywhere within a two-mile circle beneath the plane. The fineness of detail which the new lens can record at the center of the picture is limited only by the graininess of plates and films. Distortion, present in all photo lenses, has been almost completely eliminated in the Metrogon. Since such distortion ordinarily becomes pronounced with increasing angle covered by the lens, its correction was the major obstacle to be overcome in the design of the lens.
