Museum piece, furniture, or microscope?

Whatever it is it certainly isn’t pocket sized…

Alan Wood very kindly suggested that I didn't have to actually bring my latest acquisition to the meeting, given the potential problems of getting it on the Tube. I am eternally Grateful…

It's a photomicrography bench originally commissioned by the Imperial Cancer Research Fund in late 1953 and delivered some time during 1954 – took six months to supply. Built by R & J Beck and ordered by E. Victor Willmott, who is considered to be Britain's first medical photographer.

The British Journal of Photography, 17 February 1967

Photographic Profile — VICTOR WILLMOTT FIIP, FRPS

by

NORMAN K. HARRISON FIIP, Hon FRPS

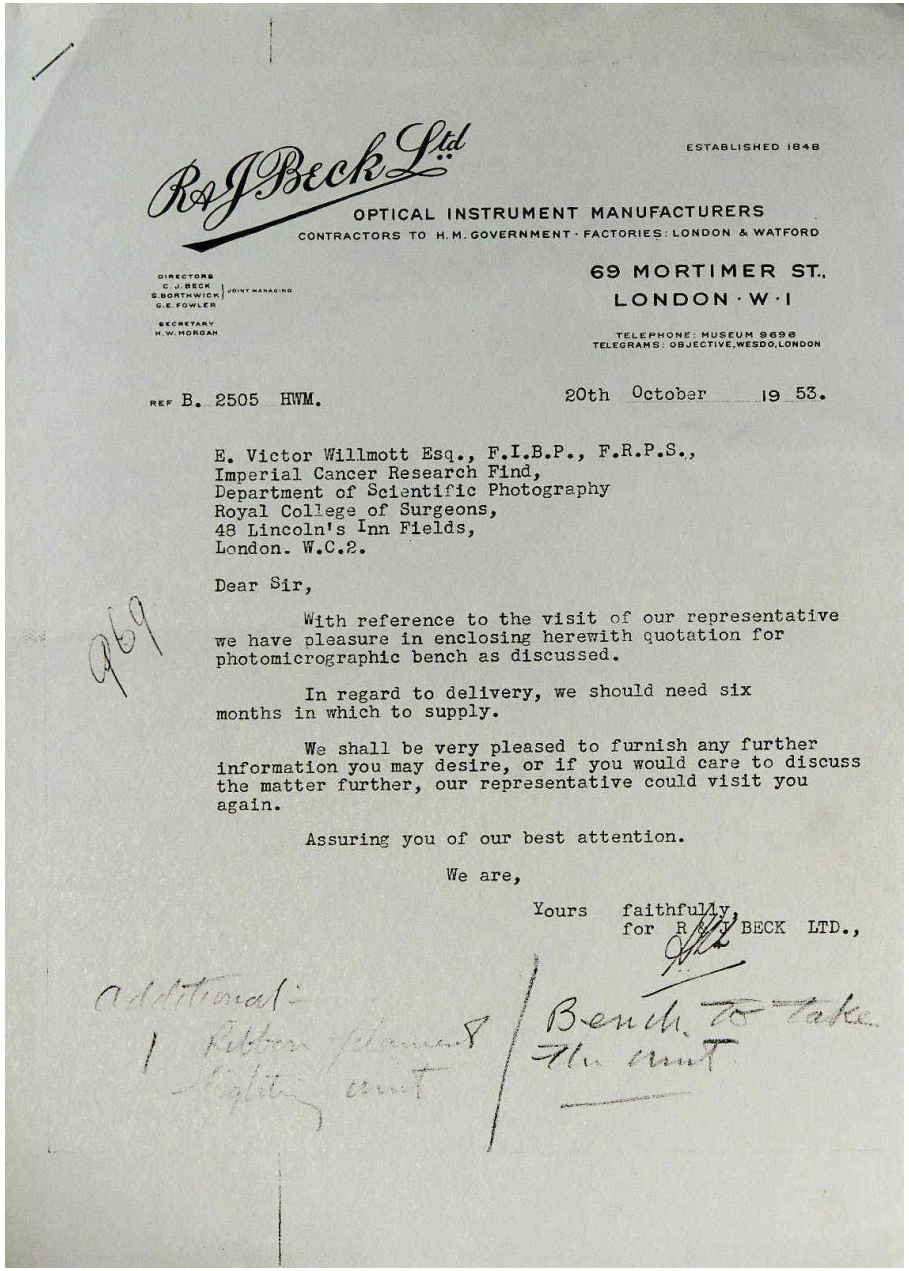
Forty-five years ago a young technician working in the department of pathology at Bristol General Hospital had made photography his hobby; on 31 December 1966 he retired from his position as head of the department of scientific photography in the laboratories of the Imperial Cancer Research Fund in Lincoln's Inn Fields,

but of a scientist continually stressing the importance of accuracy and of a meticulous attention to detail. That this guidance had its effect was to be seen in the later years, when Willmott was to be in control of hospital and research photographic departments and himself to guide and train younger men who, in their turn, were to become department chiefs.

In 1928, after six years at the General Hospital, Victor Willmott left Bristol to start a new photographic department at the Royal Free Hospital, London, where Dr. Hadfield had preceded him to be appointed professor of pathology. After five or six years there Professor Hadfield returned to Bristol to occupy the chair of pathology at the University, and Willmott followed to open up a new photographic department in the University department of pathology. His stay

sponsible for starting the department of medical photography just after the last war, which is now a department of medical illustration under David Tredinnick and Peter Cull. In 1948 Professor Hadfield was appointed to the chair of pathology at the Royal College of Surgeons, and it was here that his association with Victor Willmott was resumed. In 1953 he invited Willmott to start a department of scientific photography at 48 Lincoln's Inn Fields, only a few yards from the college, and where the Imperial Cancer Research Fund had set up its headquarters.

So, on 1 October 1953, Victor Willmott took up the last appointment of his career, and faced the task of converting empty rooms on three floors of a very old building into a laboratory for scientific photography. It was here that his experience in organis-



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REF B. 2505 HWM. 20th October 19 53.

E. Victor Willmott Esq., F.I.B.P., F.R.P.S.,
Imperial Cancer Research Find,
Department of Scientific Photography
Royal College of Surgeons,
48 Lincoln's Inn Fields,
London. W.C.2.

Dear Sir,

With reference to the visit of our representative we have pleasure in enclosing herewith quotation for photomicrographic bench as discussed.

In regard to delivery, we should need six months in which to supply.

We shall be very pleased to furnish any further information you may desire, or if you would care to discuss the matter further, our representative could visit you again.

Assuring you of our best attention.

We are,

Yours faithfully,
for R. & J. BECK LTD.,

Additional:
1 Ribbon filament Lighting unit

Bench. To take the unit

Victor Willmott - Britain's first medical photographer

Garry Swann

E-mail: swanngarry@gmail.com

The story of Victor Willmott's life is also the story of the foundation and early years of the medical photography profession. It is shown elsewhere in this issue that the recording of medical subject matter goes back to the very earliest days of photography in the nineteenth century. However, the practitioners of this new medium, which combined both art and science, were all self-taught amateurs and hobbyists.

Britain's first medical photographer

The story of Victor Willmott's life is also the story of the foundation and early years of the medical photography profession. The recording of medical subject matter goes back to the very earliest days of photography in the nineteenth century. However, the practitioners of this new medium, which combined both art and science, were all self-taught amateurs and hobbyists.

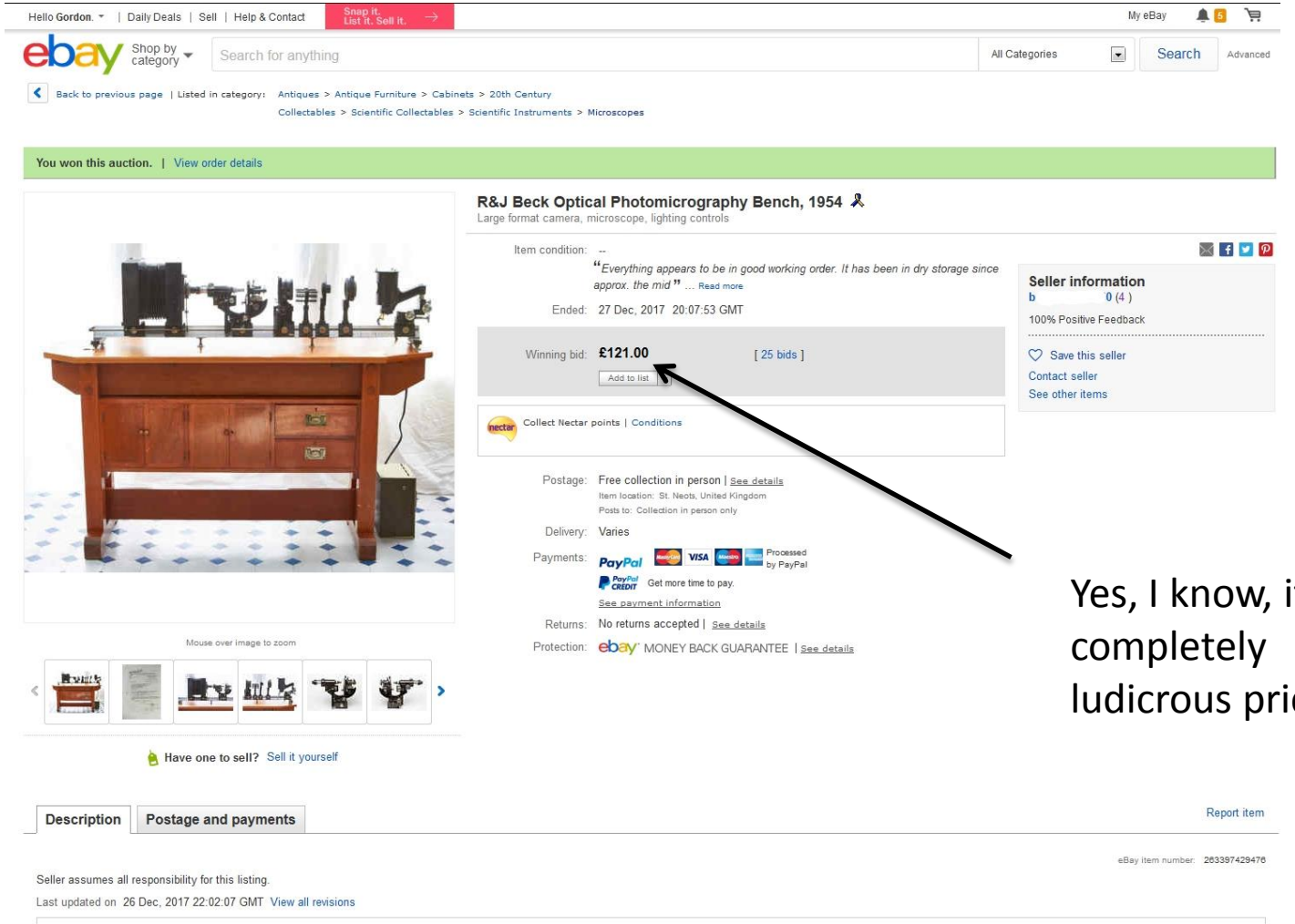
In 1920, at the age of 16, Ernest Victor Willmott, a keen amateur photographer, obtained a post as a junior technician in the Pathology laboratory at Bristol General Hospital. Within a short time members of the medical staff were exploiting his photographic skills, requesting pictures of pathological specimens and the occasional clinical case. He was also asked to take photographs of microscopic slides. The use of visual aids in teaching was growing, and many of Willmott's pictures were printed as 3¼-inch square lantern slides, the format of the time. Little financial support from the hospital authority was forthcoming, however. Of the opinion that photography was a sheer waste of money, they refused to provide any funding, forcing Willmott to work with a minimum of borrowed or makeshift equipment, including a home-made photomicrographic camera. Originally this was a box on legs positioned over a microscope, a crude system that was later superseded by a home-made optical bench (a slotted girder) aligned with a half-plate bellows camera. Photography of specimens was done using daylight, and print trimming was achieved by means of knife and straight-edge, with paste as the only mountant. Nevertheless, Willmott persevered, and in 1925 Bristol General Hospital's Dr. Geoffrey Hadfield presented at the British Medical Association's meeting in Bath the only exhibit incorporating photographs – all supplied by Willmott.

This collaboration was the foundation of what was to become a lifelong friendship and set Willmott on a course that would lead to a distinguished career. In 1928, Dr. Hadfield was appointed Professor of Pathology at London's Royal Free Hospital. So valuable to Hadfield's work had Willmott's photography become that within a few months he had persuaded Willmott to equip and start up a medical photography department at the Royal Free Hospital. This was almost certainly the UK's first designated department of medical photography employing a full-time medical photographer. Willmott worked single-handedly; in addition to a considerable volume of general medical photography, necessarily employing techniques of his own devising, there was a strong emphasis on photomicrography. Although Willmott's new hospital authority provided adequate equipment, for some reason they refused to purchase an enlarger! No doubt with Professor Hadfield's support he did, nevertheless, manage to acquire a Watson horizontal photomicrography unit. Exposures were made on a square-bellows Gandolfi camera, using only a lens cap, replaced later with a 'Luc' time and bulb leaf shutter. During this period the Eastman Dental Clinic, funded by the Kodak Company and named after its founder, was built adjoining the Royal Free Hospital. Still working alone, Willmott thus

Original letter accompanied the quote for the bench – no sign of the quote though!

The bench was clearly used extensively during the 1950s and beyond and was probably state of the art for that era but eventually it became obsolete and languished in a basement from the 1980s – fortunately a dry basement!

Thankfully it was rescued from almost certain skipdom by an employee and – as is often the case with this sort of equipment – it ended up on Ebay

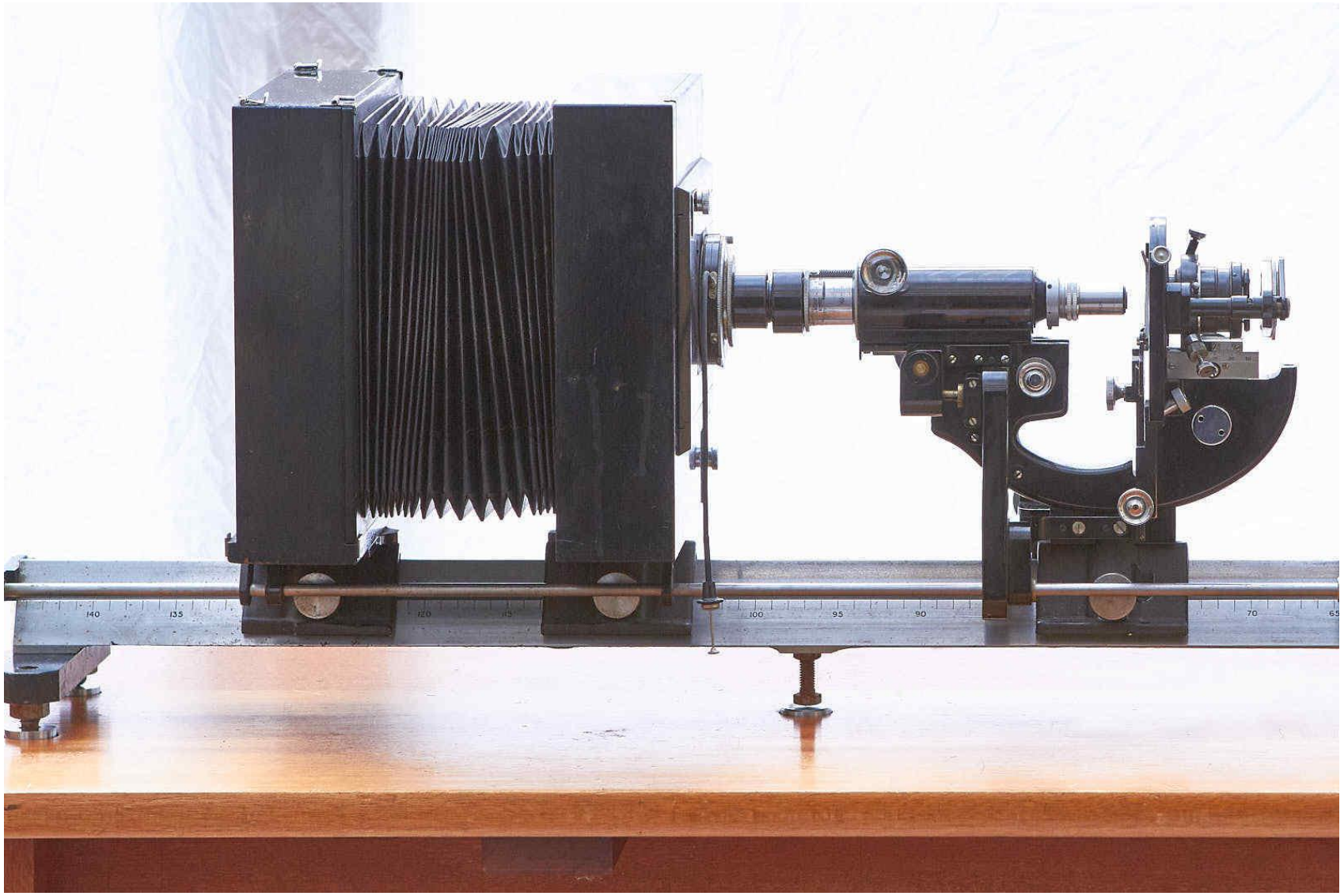


Yes, I know, it's a completely ludicrous price!

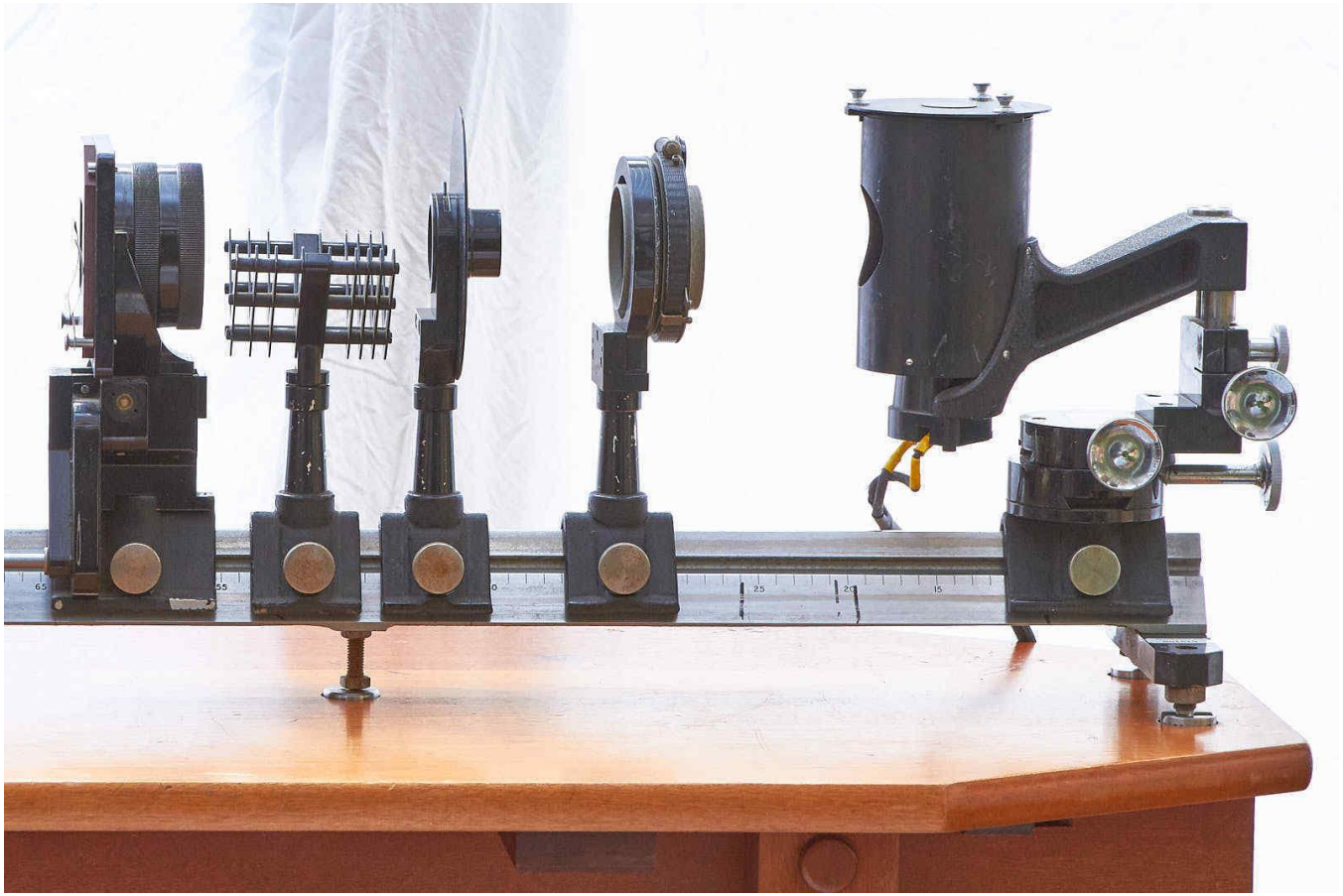
The bench in its temporary domestic setting – at least I'm told it's temporary…

Soon to be moved into my study as a permanent fixture, it will be better on a concrete floor.

Half plate bellows camera, rail fitted with remote focus rod



The rail lenses, shutter and field diaphragm and filter support, followed by the ribbon filament light source which is adjustable in three axes. The lens unit at the left has two large field lenses screwed together, I assume only one was used at a time. It's also fitted with a chain drive focus system.



The ribbon filament lamp power supply is now controlled by a Variac to give a slow start up and shut down, which may preserve the bulb. It will replaced by an LED system for practical use.

I negotiated the purchase of all of the following accessories for a modest additional cost

Additional plain stage, two sets of objectives, immersion condenser, darkfield condenser multiple eyepieces, spare condenser mount, long focal length objectives

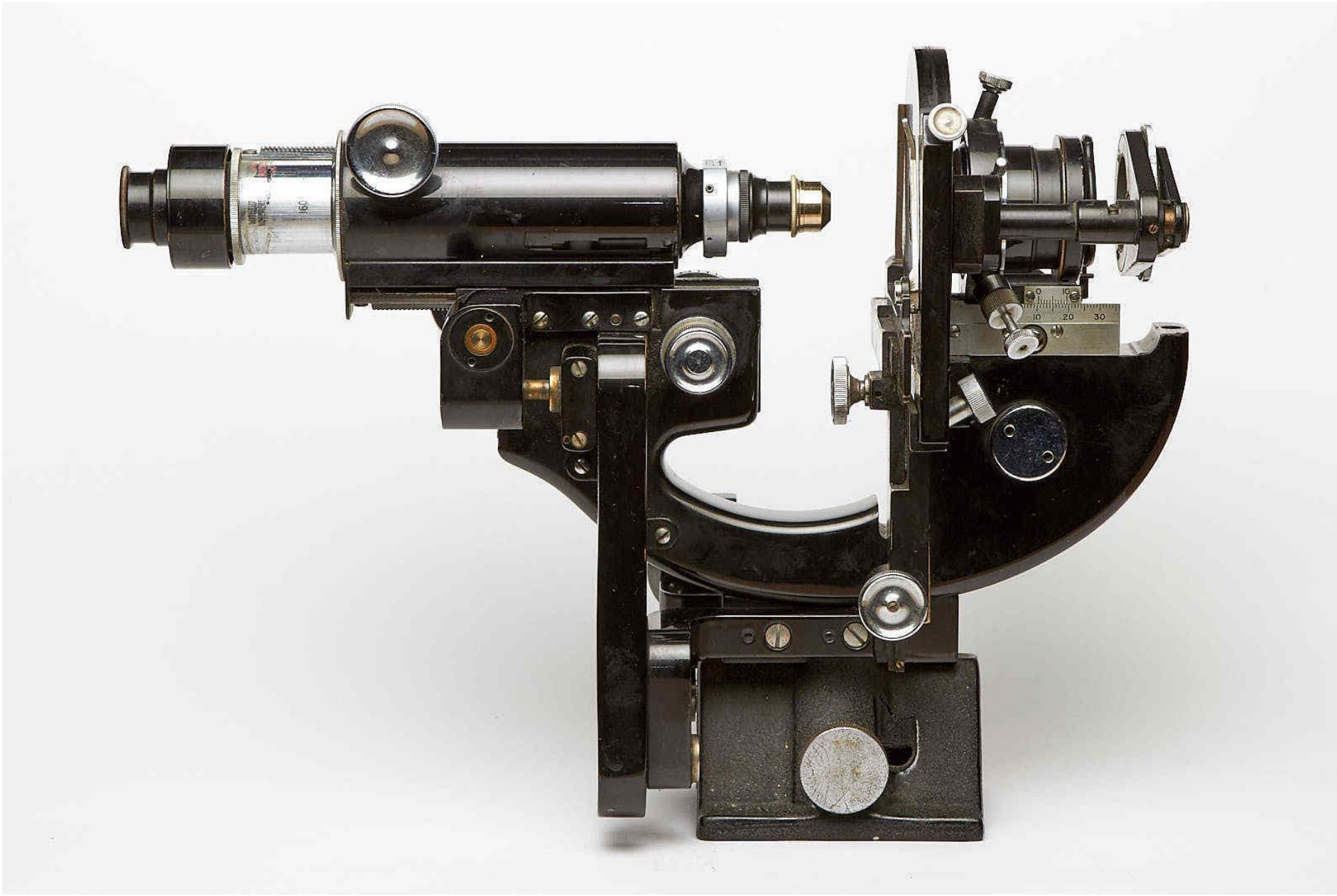

X7
COMP
X20
COMP
15 MM
C
E
3 75 MM
NA 0 95
BECK
LONDON
4 MM
BECK
LONDON
8 MM
BECK
LONDON

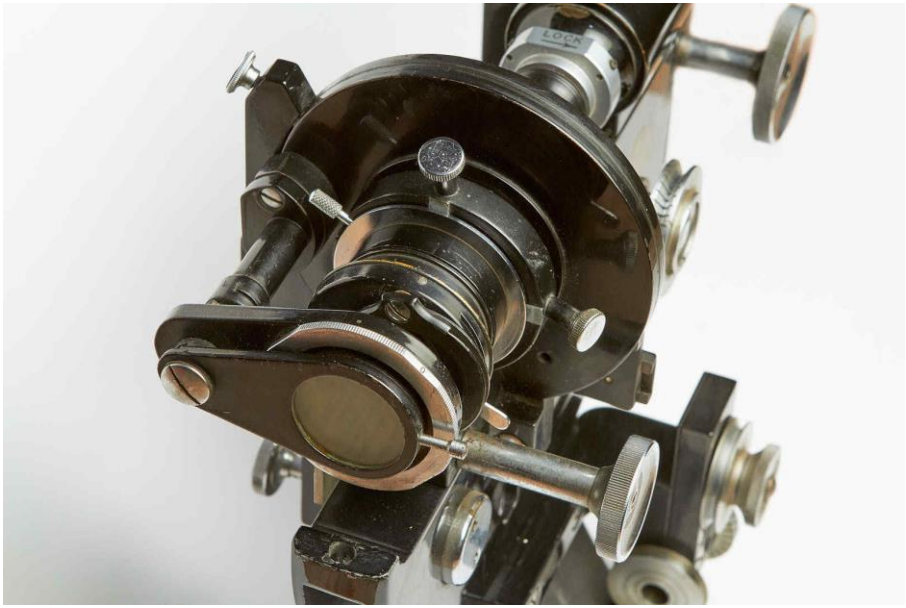
Phase contrast condenser set
There's also a matching set of four phase Objectives not shown here. Oddly, the 8mm phase ring is not marked with the magnification.

Quick release objective changers with polariser analyser and compensator. The analyser has severely degraded and delaminated, now replaced with a film analyser, not ideal but Seems to work reasonably well. Another four change rings are included but not shown

Projection lens and "Auxiliary Microscope" which is the phase telescope

Microscope body based on Beck Model 47, fitted with rotatable stage and polariser

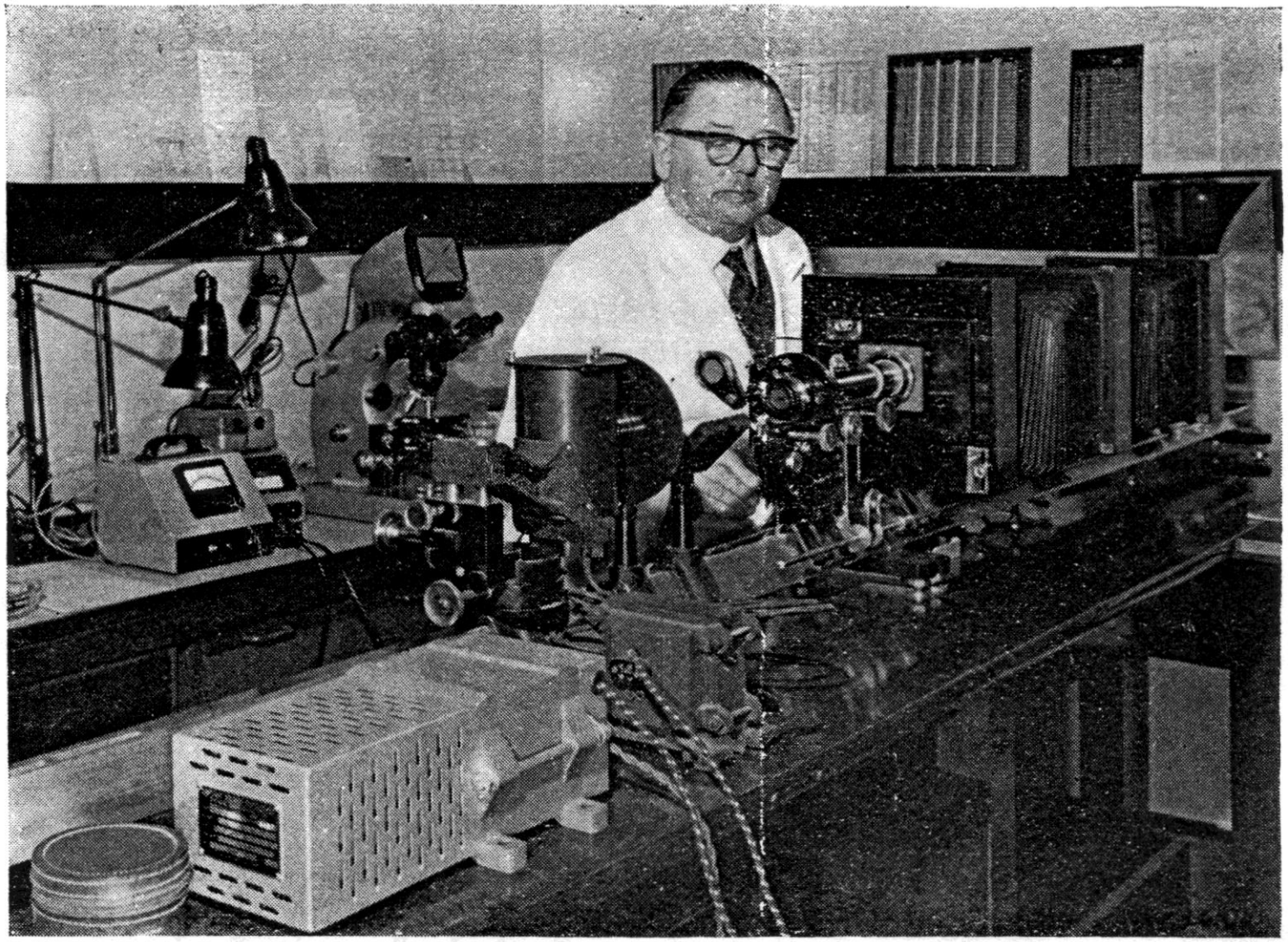




The model 47 microscope is equipped with remote coarse & fine focus
(drive band missing from fine focus pulleys)

Darkfield & Immersion Condensers

The bench in use – photo is from article in the British Journal of Photography 17 February 1967



Victor Willmott working at the long optical photomicrography bench.

The charts on the wall were included in the purchase.

I bought this in the first instance simply because I couldn't stand the thought of it being bought cheaply by someone who would break it up to sell the parts separately, if it wasn't useable my intention was to find a really good home for it, possibly in a museum. Having got it home I've fallen for its charms and I now intend to get it working as it should but with some concessions to the digital age. The ribbon filament bulb will be replaced with an LED system, but nothing will be changed, allowing it to be returned to original condition very quickly.

I'm not going to get into developing half plate film! The bellows allow the use of a compact video camera and hides it completely so that is the way to go. I'll mount a monitor on the wall behind the bench to make life easier.

Obviously, this is clearly a very unusual setup, if anyone can assist in setting up the illumination system, especially the order and position of the field lenses, I'd be very grateful!

Finally, although it's now mine – and it's not for sale! – I regard myself as the custodian of a piece of microscopy history and if anyone if near to or passing through Suffolk they are very welcome to call in to see it. I contribute to the Quekett Facebook page and can be contacted though that or email

gordon.gosbeck@gmail.com