Microscopes



MICROSCOPES
AND
ACCESSORIES
1935-6

ESTABLISHED 1765

ALTERATION OF PRICES.
WE BEG TO ANNOUNCE THAT OWING TO SUBSTANTIAL INCREASES IN THE COST OF MATERIALS AND WAGES, WE ARE RELUCTANTLY COMPELLED TO ADVANCE OUR PRICES 10% AS FROM — MAY 1ST 1937.

C. BAKER

C. Lees Curties T. J. Offer

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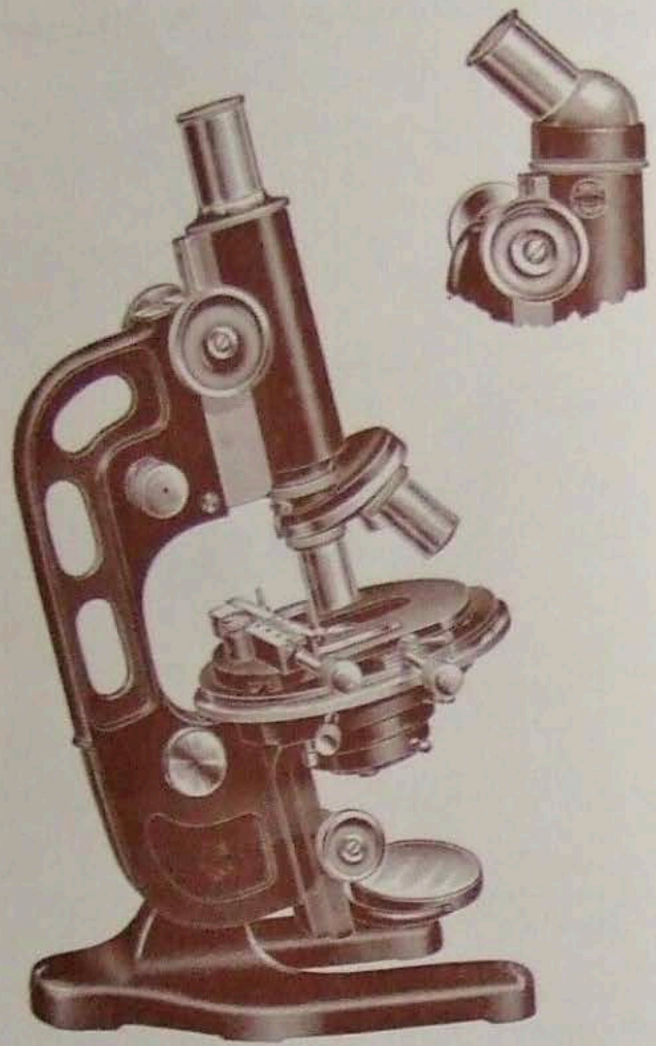

Fig. 5

NEW B.L.M. 1.A.A. MICROSCOPE

New B.L.M. 1.A.A. Microscope

Microscopes comprising Stand 1A.A. (Fig. 5) are recommended for the highest critical research work and photomicrography. The stage, Fig. 138, is centring and rotating with mechanical movements of 60 mm. in the horizontal and 30 mm. in the vertical directions, with clamp screws for the rotating and vertical adjustments. The body has a drawtube divided in millimetres provided with a suitable diaphragm to eliminate reflection from the inner surface. The substage is provided with rack and pinion focussing adjustment, centring screws and swing-out movement.

Code.		
Blema	1. **Stand** only in case	£21 15 0
Blematoo	2. **Stand** in case with Achromatic condenser (Fig. 97) and iris diaphragm. **Triple Nosepiece.** Eyepieces, Huygheniun No. 3. Eyepieces, Gifford orthochromatic 19 mm., 12·5 mm. Objectives 2", 1", ⅔", ¼" dry. Objectives $\frac{1}{12}$" N.A. 1·30 oil immersion. Micrometer eyepiece (Fig. 151). Dark ground illuminator (Fig. 100). Divisions to rotating stage. Magnification from 14 to 1,600	55 12 6
Blemafre	3. **Stand** in case with Achromatic condenser (Fig. 97) and iris diaphragm. **Triple nosepiece.** Eyepieces, Huygheniun No. 2. Eyepieces, Gifford 19 mm. Objectives 2", ⅔", ¼", $\frac{1}{12}$" oil immersion, N.A. 1·30 Dark ground illuminator, Fig. 100. Magnification from 14 to 900	47 10 0
Blemafer	4. **Stand** in case with Achromatic condenser (Fig. 97) and iris diaphragm. **Triple nosepiece.** Eyepieces 2 and 4. Objectives ⅔", ¼", $\frac{1}{12}$" N.A. 1·30 oil immersion. Magnification from 53 to 900	41 12 6

Extras

Blemapin	Rack and pinion adjustment to drawtube	2 10 0
Blemadi	Divisions to circumference of stage	1 0 0
Incleye	Inclined Eyepiece (Fig. 73)	4 0 0

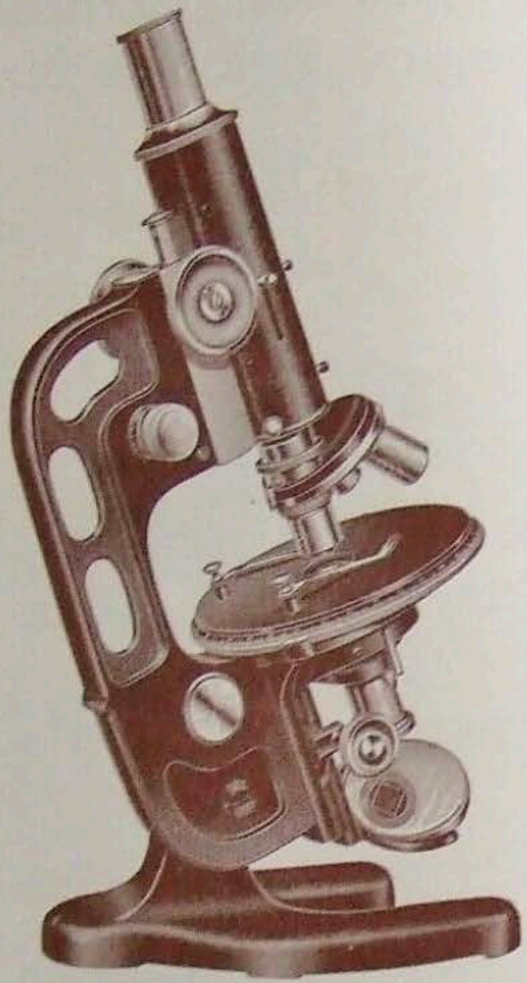

Fig. 21

NEW B.L.M. I.A.M. MICROSCOPE

Mineralogical Microscope
New B.L.M. I.A.M.

This model (Fig. 21) is a distinct improvement over those on the following pages. The whole instrument has been redesigned, resulting in greater rigidity, efficiency and accuracy. The focussing adjustments are the same as referred to previously in the catalogue. The body is now fitted with a very rigid centring nosepiece, Bertrand lens and Glan Thompson analyser, both of which can be swung out of the optic axis. A slot is also provided to accommodate wedges and other compensators. Means are provided for focussing rings and brushes. The rotating stage is divided to 360°. The rack and pinion focussing substage has mounted in it a converging system, the top lens of which can be swung aside and an iris diaphragm under which, again, is mounted a large polariser on a swing-out arm.

Code.		
Blemimone	1. **Stand** only in case	£21 5 0
Blemintoo	2. **Stand** in case with Eyepieces Nos. 2 and 4, with cross lines. Objectives 2", ⅔", ⅓", ⅙" oil immersion. **Triple nosepiece.** Quartz wedge Gypsum plate Micrometer eyepiece with scale in 100 parts Magnifications 18 to 900	39 0 0
Blemintre	3. **Stand** in case with Eyepieces 2 and 4, with cross lines. Objectives 1", ⅔", ⅓". **Double nosepiece.** Quartz wedge Selinite plate. Magnifications 18 to 303	31 5 0
Blemintor	4. **Stand** in case with Eyepiece No. 2, with cross lines Objectives ⅔", ⅓". Magnifications 45 to 164	25 5 0

Extras

Polaranal	Analyser eyepiece with divided circle	4 0 0
Polaran	Hinged rotating analyser to fit over eyepiece (Fig. 125)	3 5 0
Polarand	Bertrand quartered quartz plate fitted in eyepiece No. 2	2 15 0
Polaredge	Quartz wedge 1—3 orders	2 0 0
Polarevan	Evans' double quartz wedge 1—7 orders	3 0 0
Polargypsum	Gypsum wedge, 1—6 orders	1 15 0
Polarium	Gypsum and quartz wedge, 1—7 orders	2 15 0
Polarate	Gypsum plate, red of the first order	12 6
Polarica	Mica ladder, 16 steps, ¼ = ¼λ	2 10 0
Polarilm	Mica film, ¼-wave	12 6
Micrometit	Micrometer eyepiece	1 5 0

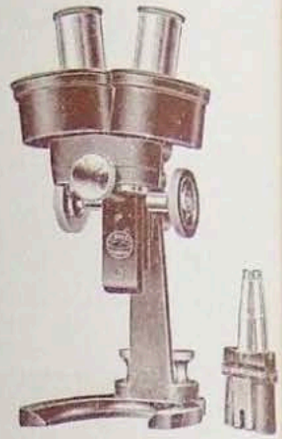

Fig. 43

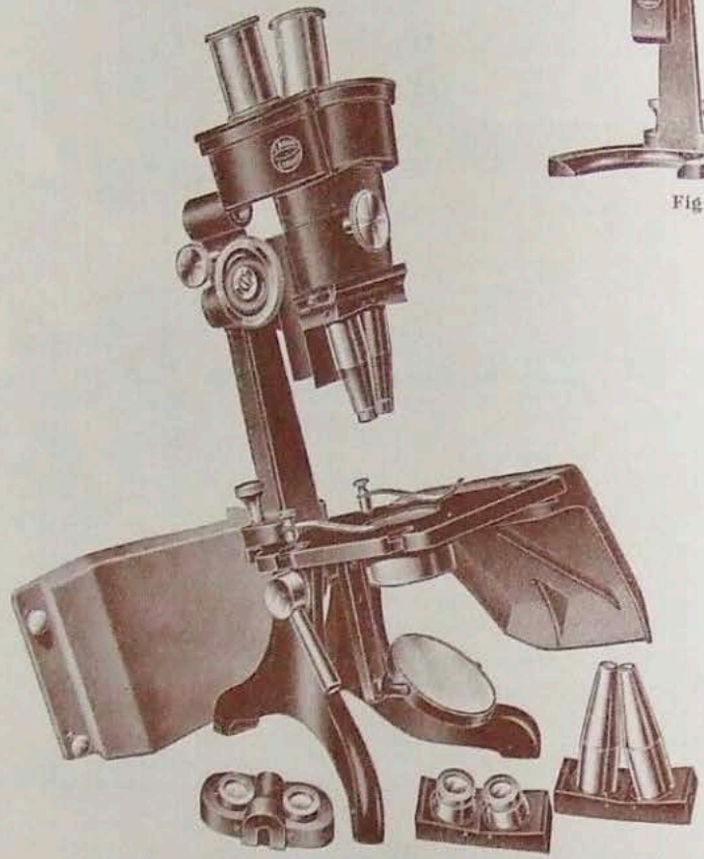

Fig. 42

Dissecting Microscopes
Greenough Binocular Microscope

(IMPROVED MODEL)

Code.			
Greenop	**Stand**	(Fig. 42) is an improved model capable of carrying a pair of very low power objectives, having a large field of view and long working distance. The instrument is a combination of two microscopes, and the application of Porro prisms affords a convenient means of erecting the image, at the same time giving a very pronounced stereoscopic effect. By rotating the prism boxes sufficient adjustment is provided for varying the inter-pupillary distance within normal limits. The tubes are set at an angle to one another to bring the object into focus at the same point in each field. The body is mounted on a slide with rack and pinion focussing adjustment, and to this is fitted a metal boss by which it is carried to the limb or the universal stand (Fig. 44). The limb is attached to a large square stage by means of two thumbscrews, and can be readily removed and fitted to a metal fork, as Fig. 43. Under the stage is fitted a tube of the universal size into which can be inserted a large spot lens for dark ground illumination. A pair of aluminium arm rests are provided and are attached to the side of the stage. In case	£17 10 0
Greenoplim		Body and limb mounted on metal fork (Fig. 43)	14 14 0
Greenoples		Body with rack and pinion adjustment only	12 14 0
Greenork		Metal fork	15 0
Spotens		Large spot lens for dark ground illumination	1 5 0
		Objectives 4"	3 0 0
		Objectives 2½", 2", 1½", 1" ... ... per pair	3 0 0
Greenoplan		Objectives 1" Plankton... ... ... "	3 10 0
		Eyepieces 1, 2, 3, 4	18 0
		Ditto, 5, 6	1 5 0
		Gifford orthochromatic eyepieces, 19 mm., 12·5 mm., 9 mm., 6·5 mm. per pair	3 10 0
		Stage forceps for holding specimens so that they can be examined in any position	12 0
		Bull's-eye condenser on stand	1 0 0
		Stage fitted with large glass plate	12 6

MAGNIFICATIONS.

Objectives.	Eyepieces.									
Focal length.	1	2	3	4	5	6	19 mm.	12·5 mm.	9·0 mm.	6·0 mm.
4" ...	3·3	5·2	7·7	8·3	12·2	13·3	7·4	13·6	—	30
2½" ...	9	13	16	19	28·25	30	17	34	45	80
2" ...	12	16	19	25	34·9	38·3	28	50	60	110
1½" ...	19	25	32	39	54·5	61	40	70	90	150
1" ...	28	46	53	62	87·3	96	60	110	140	220
1" (25 mm.) Pl.	32	38	55	65	90	110	70	120	130	335

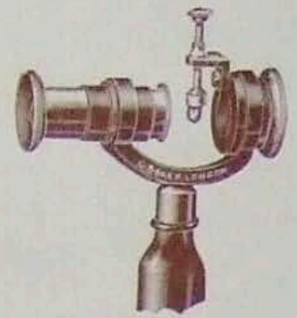

Fig. 124

Code *Dichroider* **Dichroiscope** (Fig. 124), with gem holder consisting of a calcspar prism which gives a double image of the rectangular diaphragm through which the gem is examined. These images are magnified by a lens having a focussing adjustment. Single refracting bodies give the same colour and intensity while coloured double refracting crystals exhibit differently coloured or intense fields, thus affording an easy means of distinguishing most double refracting gems from the single refracting crystal or paste

The gem holder rotates about its axis and also that of the apparatus £3 10 0



Fig. 125

Code *Dichrois* **Dichroiscope** (Fig. 125), simple pattern, for comparison of the different colours of the dichroic minerals. It is a portable instrument which can be carried in the pocket and is always available for distinguishing gems from glass imitations £1 10 0

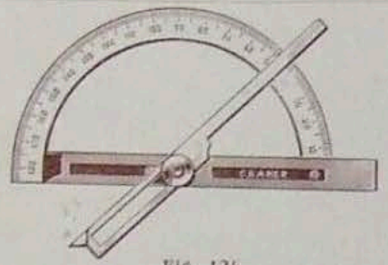

Fig. 126

Code *Tactgonis* **Contact Goniometer** (Fig. 126), of the Romé de l'Isle pattern, 3" semi-circle divided to single degrees. The detachable arms between which measurements are made have an adjustable centre for applying to a small crystal in its matrix £1 17 6



Fig. 127

Code *Fractometer* **Gem Refractometer** (Fig. 127), available for both translucent solid substances and fluids. Its range extends from 1·300 to 1·790. The refractive index is read off direct on an open scale; observations are made either with the illuminating beam at a glancing incident along the top of the hemisphere or by total reflection through the window on the underside. Clips are provided for ground glass or coloured filters ... £12 10 0

Nicol prism to fit over ocular for measurement of both values of birefringent substances 1 10 0

Mechanical Accessories

For the Body



Fig. 128



Fig. 129

Revolving Nosepieces.

The revolving nosepiece is an adapter by means of which two or more objectives may be attached to the instrument at one time. It is made in such a manner that any one of the objectives so carried can be immediately rotated into position. **The centring of these nosepieces is one of the chief features, special machinery being employed which ensures their accuracy.** The back of each objective is protected by a continuous cover, so that if the nosepiece is left partially rotated no dust has access to the back lens. To ensure correct centring the nosepiece should always be rotated in one direction.

Code
Twopiece **Double nosepiece** (Fig. 128), finished black with a nickel-plated front, adjustable ring for clamping in any desired position £1 2 0

Tripiece **Triple nosepiece** (Fig. 129), same finish 1 7 6

Fourpiece **Quadruple nosepiece,** same finish 1 15 0



Fig. 130

Code *Cenpiece* **Centring nosepiece** (Fig. 130), is made to centre an objective with a rotating stage which has no centring adjustment, and can also be used very effectively for centring the objective with a condenser where no centring screws are provided to the substage ... £0 15 0



Fig. 131

Code *Davshut* **Davis shutter** (Fig. 131), for moderating the aperture of objectives to give increased penetration, etc. £0 16 6

Davsub Ditto, with adapter to the substage to take objectives as condensers 1 1 0



Fig. 132

Code *Lengpiece* **Lengthening adapter** (Fig. 132), to screw into the body of microscope and carry an objective, 10 mm., 15 mm., or 20 mm. £0 3 0