

## What is an England Finder Slide?

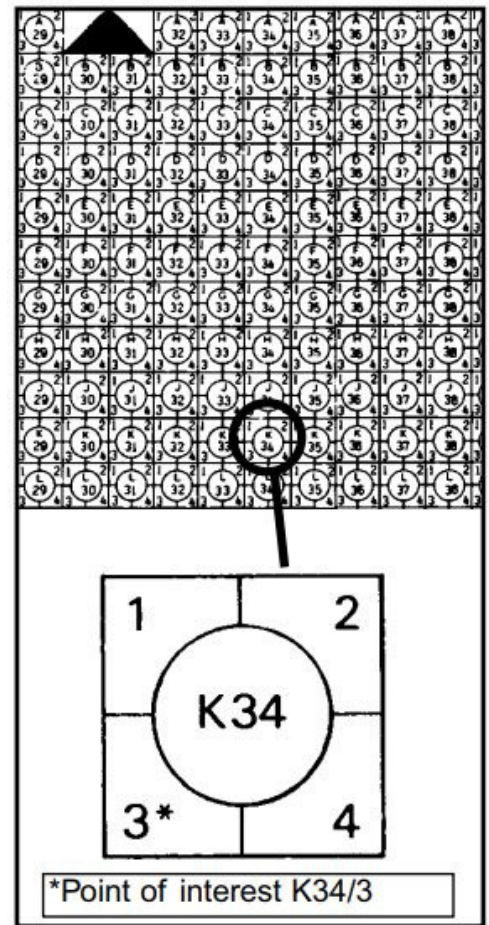
The England Finder is a glass slide marked over the top surface in such a way that a reference position can be deduced by direct reading, the relationship between the reference pattern and the locating edges being the same in all finders. The object of the Finder is to give the microscopist an easy method of recording the position of a particular field of interest in a specimen mounted on a slide, so that the same position can be re-located using any other England Finder on any microscope.

## Description

The England Finder, a section of which is illustrated, consists of a glass slide 3" x 1" marked with a square grid at 1mm intervals. Each square contains a centre ring bearing reference letter and number, the remainder of the square being subdivided into four segments numbered 1 to 4.

Reference numbers run horizontally 1 to 75, and letters vertically A-Z (omitting I). The main locating edge is the bottom of the slide which is used in conjunction with either the left or right vertical edge of the slide, according to the fixed stops of the stage of the microscope, all three locating edges being marked with arrowheads. The label on the finder should always appear visually at the bottom left corner when through most microscopes the reference image will appear correct.

In the illustration (part shown), the point of interest is marked with a cross, and will be seen to lie in the third segment of the square of reference K34, hence the England Reference is K34/3



## How to use the England Finder Slide?

1. Mark the specimen slide with a label on the left indicating with arrows which sides are to be used for location. Place the slide on the stage of the microscope bringing the bottom long edge in contact with the base stops of the stage and then sliding either left or right into contact with the vertical fixed stops as appropriate. It is important always to obtain the main location of the slide and finder on the base stops first.
2. Having examined the specimen in the normal way and found a point of interest, bring this to the centre of the field of view (a crosswire in the eyepiece is useful in this respect).
3. Taking care not to alter the position of the fixed stops of the stage, remove the slide and replace with the England Finder, again bringing the bottom edge in contact first and sliding to the appropriate vertical stop, the label of the Finder being at the bottom left corner.
4. The reference pattern of the Finder will now be seen through the microscope (adjusting the focus if necessary). The reference number of the main square is recorded followed by an oblique stroke and the number of the segment in which the centre of the field of view lies (1 to 4 or 0 if in the centre circle). The boundary lines of the main squares are easily distinguishable as these are the only continuous straight lines of the pattern.
5. The reverse procedure is adopted to re-locate the point of interest, The England Finder is placed on the stage as outlined above and the stage is adjusted until the appropriate reference square and segment appear in the centre of the field of view. Remove the finder and replace with the specimen slide with label to left and appropriate vertical slide in contact with the fixed stop, when the point of interest will appear in the centre of the field of view.

## Technical Notes

When using high powered objectives with fields of view less than 1mm, it is advisable to adjust the turret to a lower powered objective, relocating the point of interest, before taking the England Reference. If it is not possible, first note the segment in which the point lies and then adjust the mechanical stage until the reference number of the main square can be found, taking care only to cross a curved, but never a straight line. To facilitate re-location a small sketch indicating the position of the point of interest in the actual segment is very helpful with high power. When there are no fixed stops on the stage of the microscope, a fixed stop glass plate should be used, which we would be pleased to supply. This consists of a glass plate approximate 4" x 2" on which are cemented four fixed stops in the form of glass discs. Two edges are brought in contact with the appropriate three fixed stops of the plate, which is then moved on the stage until the point of interest is in the centre of the field. The plate is now clamped to the stage of the microscope with the stage clips and the slide and finder are interchanged as outlined above.

It should be emphasized that only when the specimen slide is identical in size and shape to the finder will the references taken from right or left edges be identical. As this will seldom be the case, where interchange between different microscopes is likely to be required, it may be convenient to take both right and left references, and in any case the references should be clearly pre-fixed with the word right or left as appropriate. The glass fixed stop plate mentioned above is particularly convenient for taking readings from both right and left.

The successful use of the England Finder is partly dependent on the use of an efficient stage with good fixed stops, and partly on the use of well cut specimen slides. These should have good clean edges and should be cut square. If you should experience any difficulty in obtaining suitable slide glasses, we should be pleased to supply these to you in a satisfactory quality.

## Care of the England Finder

It is most important to avoid spoiling the locating edges and to keep these clean. Finders can be conveniently cleaned by soaking in Nitric Acid or solvents normally used for glass cleaning, polishing with a soft cleaning tissue or cloth, being careful not to scratch the glass surface. If you require a replacement finder, you will obtain the same references for the appropriate locating edges.



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