

# HYFIN

It is now commonplace to make big enlargements from tiny negatives, and the smaller the film the sharper the images must be. The film must record every detail cast upon it by the lens, and this means sharpness must not be lost during development. An impression of sharpness is given by high contrast at the edges of tones, and on February 17th, 1954, *Amateur Photographer* published an article by Willi Beutler describing his developer which produced this effect.

The Beutler-type developers are best used with films capable of giving high contrast (since otherwise the enhanced edge effect is not obtained) and of inherently fine grain

(since the developer has no pretensions to fine grain). It was also found that this developer allowed films to be used at a higher rating than the standard M.Q.-borax type such as D 76 and the like. Quite soon ready-made versions appeared on the market, and once the teething troubles were over they proved popular. Keeping qualities were not good enough to allow these early liquid versions to be kept in large bottles; instead they were supplied in small individual phials, each sufficient for one or two films. This method is convenient, quick and easy to use but does not raise the cost. Indeed, since Beutler developers are comparatively dilute it was said that the less salts a developer contained

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A represents the ideal density difference in a negative which should be produced by adjacent tones. B is what the ordinary film developer combination gives. C shows the extra edge contrast given by Beutler-type developers.



the more it cost! Later a modified developer appeared which could be kept as a stock solution and sold at a lower price, but liquid developers always cost more than those made from powders.

For those reasons there was a need for a powder developer of Beutler type, and Ilford, Ltd., have filled the gap by producing Hyfin. This is sold in cartons costing 4s, each carton containing five separate sachets, each to make 600 ccs of working-strength solution, which will process two 120 or 35-mm films. The solution is, of course, used once and then discarded, although it can be split between two tanks if more convenient.

The packets are of the familiar foil-and-plastic type containing rather less than a teaspoonful of free-running white powder. This dissolves very easily with slight effervescence. The developer is intended specifically for Pan F and FP3 series II film, the developing time for both films being given as 18 mins at 20°C (68°F). It would be best to describe the developer as of modified Beutler type because the developing times are longer than those of the version described in *A.P.*, and also the edge effects did not appear quite so pronounced (which is good on the whole). Warning is given against excessive agitation which could destroy the edge effect; suggested agitation is 10 secs after pouring in and for 5 secs in each successive minute. Frankly, I prefer not to be tied to a tank for about 20 minutes and so gave agitation at far less frequent intervals without any evil effects; however, this is a matter for each photographer to decide for himself. Results on Pan F and FP3 series II were excellent, showing some edge effect which improved apparent sharpness but not to such a degree that lines became noticeable. Gradation was good, and in particular there was no tendency for highlights to block up. Fog level was low. Effective speed was higher than with D76 type developers,

but not to the extent of a full stop. The test on which this last statement is based was made by cutting in two a film given two series of graduated exposures, developing one half in Hyfin and the other half to the same contrast in the same maker's ID11, and then matching halves. This gave Hyfin the advantage by a little over half a stop, say 60 per cent, but naturally the difference between this and a full stop is negligible in practical work. The "minimum exposure" rating for FP3 is now 125 ASA and, quite frankly, I could not raise that rating to 250 without losing shadow detail, the nicest negatives being obtained at about 125 using Hyfin. However, this would depend on many factors such as individual ways of using the meter, true shutter speeds, type of negative preferred, and so on.

## Other Makes of Film

Unfortunately, Ilford, Ltd., do not make a roll film suitable for this developer, although doubtless FP3 series II will arrive in that size one day. For this reason Adox R14 was tried (15 mins development time) and gave some of the best negatives I have ever seen, with excellent gradation throughout, crystal-clear base, great sharpness, and sufficiently fine grain to allow 20×16 prints from two-thirds of the negative. The most pleasing negatives were obtained with a rating of 40 ASA, although previous remarks apply to this also. R17 could be used also, but with more grain, as one would expect. Roll-film Panatomic X was not really suitable except for scenes with contrasty lighting; again, this is exactly what one would predict on theoretical grounds.

To summarise, Hyfin fills a long-felt want and it would be difficult to find a better developer, at any price, for slow films of inherently fine grain and steep gradation. In particular, it makes an excellent partner to Pan F.