Acrylic picture varnish for thin stained films

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The bright pigments of cave pictures in Spain have been preserved from Paeleolithic times by the accidental formation of a surface film of calcite (Kühn, 1952), and since then many glazes have been used deliberately for the protection of colours. The idea of varnishing glass slides is not novel, but practical difficulties concerning preparation, *p*H, and especially viscosity, have discouraged its use.

This paper describes the easy and successful application of modern synthetic resin varnish to preserve stained microscope slides for repeated examination.

USES

The varnish has advantages over traditional Balsam and cover-slip mountings for blood films, thin smears of such materials as pus, sputum, and vaginal secretions, and for bacteriological films.

It is probably not satisfactory for histological specimens, although it is possible that very thin sections might be so mounted.

MATERIALS

The most useful varnish found so far has been a solution of synthetic resin in petroleum spirit.[1]

Many other sprays, varnishes, and polishes were tried. Most were discarded because they were too acid, too viscous, or too expensive; or because they were removed too easily with the microscope oil.

It is probably wise to check each batch for excessive acidity.

[1]Winton picture varnish, Winsor & Newton Ltd. at about 1/6d. for an ounce and Rowney clear picture varnish no. 800, 2/6d. for 2 oz.

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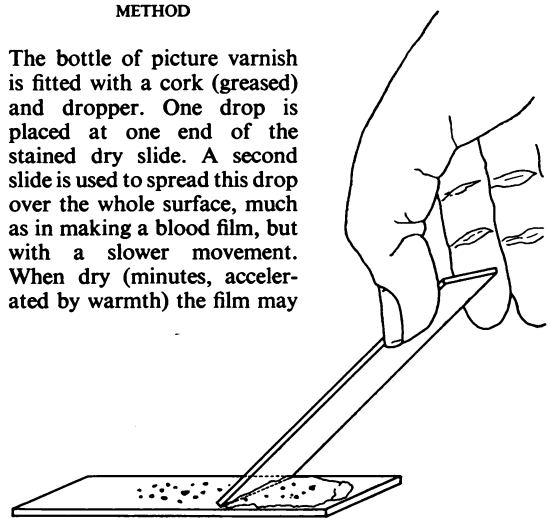
METHOD

The bottle of picture varnish is fitted with a cork (greased) and dropper. One drop is placed at one end of the stained dry slide. A second slide is used to spread this drop over the whole surface, much as in making a blood film, but with a slower movement. When dry (minutes, accelerated by warmth) the film may



be studied under dry or oil-immersion objectives. Oil may be simply wiped off with a dry paper tissue, and the film is then clean for storage and re-use. Xylol is not needed and must not be used as it will dissolve this glaze.

Particulars or numbers written with ink or crayon at one end of the glass slide can be varnished over to provide permanent labelling.

COMMENT

There is no fogging of the image. Leishman-stained blood films appear a little clearer when varnished. Films stored eight months have not faded.

Stains tested so far are Gram, Ziehl-Neelsen, Albert, methylene blue, Leishman, and Giemsa.

Films under the varnish are protected from oxidation, damp, and scratching. So long as the slide is unbroken, viable organisms and spores are safely under seal, a consideration of importance when demonstrating pathogens to large classes.

SUMMARY

An easy method of glazing stained microscope slides with acrylic picture varnish is described. Immersion oil can be wiped off such slides with a paper tissue. They can be examined repeatedly and kept indefinitely. The varnishes described do not have the disadvantages of excessive acidity and viscosity which have discouraged the use of slide glazes in the past. For many purposes varnishing is superior to coverslip mounting.

REFERENCE

Kühn, Herbert (1952). 'Die Felsbilder Europas'. Kohlhammer Verlag, Stuttgart. Trans. 1956 by Alan Brodrick as *The Rock Pictures of Europe*. Sidgwick and Jackson, London.

A portable micro-centrifuge (*cont.*)

OPERATION Place equal amounts of clotted or defibrinated blood in two or four of the centrifuge tubes. The tubes so balanced are placed opposite each other in the angle head. Switch centrifuge control switch to the 'on' position and close the lid. Leave for two or three minutes. Open the lid and switch off the motor; extract the tubes with forceps.

Do not use the panel lamp while the centrifuge motor is switched on, as this places an unnecessary drain on the batteries.

No variable speed control has been included as this has not been found necessary.