

ROUTLEDGE REVIVALS

Cine Craft

J. David Beal



Cine Craft

Cine Craft (1974) is an ideal guide to the world of amateur film making, a treasure-house of authoritative information. It covers the equipment, both basic and advanced, and the planning needed for a successful production. It looks at indoor and outdoor shooting, composition, exposure, continuity and camera movement, editing and titling, and the methods and use of recorded sound. An intriguing chapter deals with the various forms of cine animation using puppets, cut-outs and cells.



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CINE CRAFT

J. David Beal

Foreword by

RONALD B. MACLUSKIE, C.A.



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DEDICATION

To
Anne
Alasdair
John
Richard
Janet
and their mother

FOREWORD

“All the world’s a stage,” wrote Shakespeare; but if he had been alive in the twentieth century instead of the sixteenth, he might very well have wanted to amend that line to refer to film-making instead of the theatre. It would certainly be an appropriate change of metaphor, for it is the celluloid image—in the cinema and on television—that seems increasingly to dominate our lives. The new media that have been created by technology are now for the vast majority of people the principal channels not only of entertainment but also of information.

It is, of course, a charge often made against the dominance of the image that it is dangerously powerful, and it is in this context that the enormous upsurge of interest in making films—as well as being entertained and informed by them—is extremely important. There have been amateur film-makers from the birth of the medium itself, and in fact the first story film made in Great Britain was an amateur production made in 1905, called *Rescued by Rover*; but such activities can no longer be regarded, as they often were, as an over-expensive and distinctly unusual hobby. The new interest in making films reflects not merely the public acceptance of the medium, but additionally a healthy determination to avoid being passive recipients of it. Amateur film-makers nowadays play a most important role, whether they are aware of it or not, in “talking back” to the professionals, in expressing their own interests and ideas through film.

As with any means of expression, however, the desire to say or show something is not enough in itself. The film-maker must bring a degree of expertise to his project, whether it be humble or ambitious. The aim of this book is to enable amateur film-makers to achieve that skill by offering a comprehensive guide to the whole process of making a film: from the basic conception through the crucial stages of planning and preparation, of shooting and editing, of titling and sound recording, to the finished work. It is an aim which is admirably achieved, and every amateur film-maker could benefit from David Beal’s authoritative knowledge and guidance. Indeed, it will encourage even those who have never thought of making films to begin their own exploration of this most exciting medium.

Ronald B. Macluskie, C.A.
Director, Scottish Film Council

1. SIMPLE RULES OF FILMING

The newcomer to movie-making is naturally full of eagerness to try out his new cine camera. He is sure to want to shoot off great quantities of film stock indiscriminately, waving the camera wildly around the landscape, or pointing it at friends as they walk sheepishly up to him. All this in the confident hope that the product will be an acceptable film.

We are all familiar with the result—uneasy smiles, never-ending processions, jerking and jolting, blurred images, and a succession of scenes and events related in no way to each other.

Maybe there is something to be said for the beginner using up a whole reel of film in this fashion. It will at least get a lot of mistaken ideas out of his system.

It is assumed that if a beginner, you have studied the instruction manual with great care, loaded up with film, and found the most comfortable way to hold the camera. All you have to do now is to look through the viewfinder and press the release. The result can be perfectly satisfactory—but only if you bear in mind a few basic guiding principles, which have been found by experience to cut out nearly all the blunders that make so many beginners' films painful to watch.

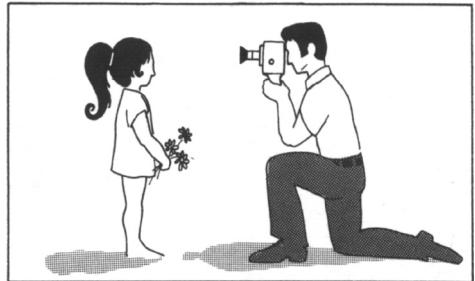
Later on, after practice, the film-maker usually discovers that these rules may on occa-

sion, and with advantage, be broken. At first it is certainly better to adhere firmly to them all.

Here, then, are eight simple rules for the beginner.

Get your lighting right

It is as well to start filming out of doors, and in bright or hazy sunshine—that is, where either strong or faint shadows are cast. If the camera is fitted with an automatic exposure system, as is likely, a minor burden is lifted from your shoulders, and the camera is always ready for action. If not, then the exposure adjustment must first of all be set for “bright sunshine” or “hazy sunshine”, as the case may



As a general rule, have the light behind you as you film. Indoors, use special movie lights unless the camera is loaded with fast film.

SIMPLE RULES OF FILMING

be. I am assuming that you do not have a separate photo-electric exposure meter.

With colour film, which is almost universally used nowadays, the best results are generally obtained with the sun almost directly behind you, rather than on one side as in black-and-white photography. This, to put it simply, is because in colour photography the colour is somewhat more important than the shadows, and also because colour film cannot show detail in shadows without making sunlit areas look pale and washed-out.

Avoid taking shots with too much contrast—for instance, with a very bright foreground and a very dark background, or vice versa.

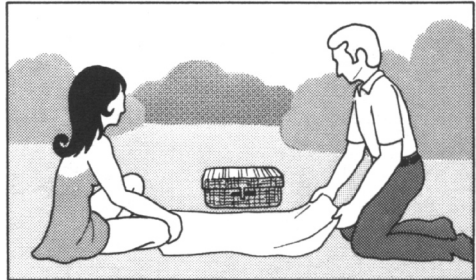
If you want to film indoors, you may have to purchase special lights. If so don't be too ambitious; confine indoor filming to taking fairly close shots in smallish rooms.

Frame your subject

When you have decided on the subject for your first scene, look through the viewfinder and consider the picture.

If it is a distant view, try to contrive that a pleasantly-shaped object (or person!) is in the foreground, to give an impression of depth to the scene. The time-honoured example—and one not to be scoffed at—is a tree with one branch partly obscuring the sky. Alternatives abound: an archway, an open gate, the overhanging red roof of a Swiss chalet, a fishing net hanging out to dry, or an old villager smoking his pipe and contemplating the scene. In any case, avoid, if you can, filming merely a distant range of mountains. If they have no "frame", the result is almost bound to disappoint.

If your subject is nearer to you, the effect will



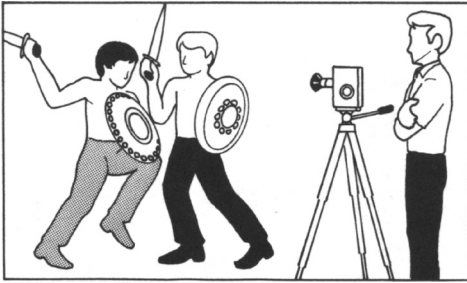
Fit the subject neatly into the viewfinder frame. Have a feature of interest in the foreground where possible.

probably be more satisfactory. But the idea of framing should still be borne in mind. Whether your subject is a horse, a locomotive or a small child, you should first move backwards and forwards a little until the subject, or the main part of it, almost fills the frame of your viewfinder in a pleasing way. Alternatively, if your cine camera is fitted with a zoom lens, use this before filming, to frame the subject satisfactorily.

The background is very important, and often neglected. Make it fairly simple and not cluttered with distracting shapes or colours. If nothing suitable—such as a forest, a hillside or the wall of a cottage—presents itself, try getting down on one knee and using the blue sky as a background, with perhaps a fleecy cloud scudding past.

Let the subject move

Movement is the whole foundation of the film-maker's art, yet it is surprising how many film-makers subject their audiences to interminable shots of buildings, statues, towers, hills and other static objects. These would be



Remember that subject movement is the basis of cinematography. Hold your cine camera very steadily; use a tripod if you can. Keep panning, tilting and zooming to a minimum.

much more satisfactory as still transparencies—with the added advantage of fine detail denied to the user of amateur cine film.

There is no reason why such objects, if they are relevant, should not appear in your film, but some movement should be seen as well. You can't make Milan Cathedral get up and walk; but you can show a few people strolling past the entrance, or perhaps a flight of pigeons passing the spires. Half-timbered houses in a village in the Harz Mountains are most delightful, but in a film they need a farm cart rolling past, or a damsel opening an upstairs window, or even both. An azure bay in Bermuda is rendered unforgettable on film by a graceful yacht gliding across it.

If you are filming people whom you know, you can ask them to move about naturally and to ignore the camera. This is not always simple for them, and often the easiest and most effective way is to film them without their knowledge.

Keep the camera still

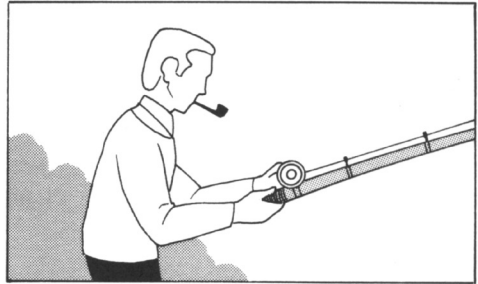
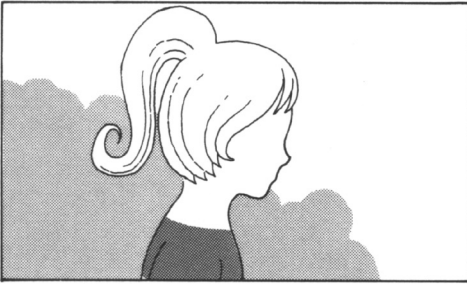
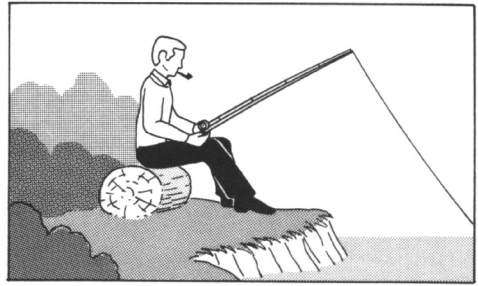
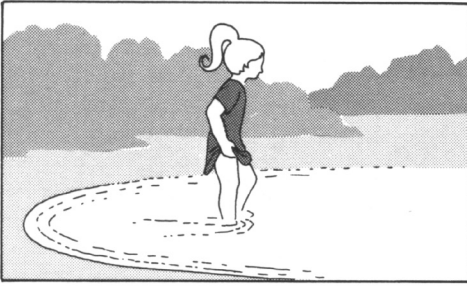
More cine film is ruined by restless cameras than by anything else.

The term "motion picture" does not mean "moving camera". Nearly all the movement in a film should be in the subjects filmed, yet the beginner seems unable to resist waving his camera unsteadily about along skylines, up cathedral spires, along sunlit beaches, from end to end of a row of trippers standing outside their bus, and from bow to stern of an ocean liner and back again for good measure. Instead, from the start, hold the camera perfectly still and just let things happen in front of it.

The chief exception to this rule occurs when you want to show your audience a moving object. It is perfectly permissible to follow carefully and smoothly with your camera the movement of a yacht or a red deer or a girl, as long as the subject is not too near or moving too fast.

You can also film from a smoothly-moving vehicle, such as a train, a rowing-boat or a mountain chair-lift. Such shots can be extremely pleasing, especially if the camera is pointed in the direction in which you are moving.

Into the category of restless camera movement comes the abuse of the zoom lens. The primary purpose of the zoom lens is to enable the cameraman to fill the frame with his subject before starting the motor, without the trouble of moving his position backwards and forwards. There are few more nauseating forms of entertainment than a film in which the audience is zoomed to and fro as if seated on a bacon slicer.



Get as near as you can while still keeping the subject in focus.

Change your camera position (or zoom setting) with every successive shot.

Take plenty of close-ups

The most pleasant and sparkling shots in amateur movies are generally the close-ups. Somehow a close-up seems to be sharper and crisper on the screen than does a distant shot, and there is undeniably considerable impact in the sight of an attractive face, twice as large as life. And yet many people seldom attempt to get any nearer to the subject than about three metres.

If your camera has a viewfinder separate from the lens, leave a space above a person's head as framed in close-up in the viewfinder. This is to prevent the top of the head from being cut off in the final picture.

Vary your viewpoint

Each shot—that is, each length of film taken with one run of the camera motor—should be taken from a viewpoint different from the previous one. There are good reasons for this, but it will perhaps be sufficient at the moment to point out that variety of viewpoint is always refreshing.

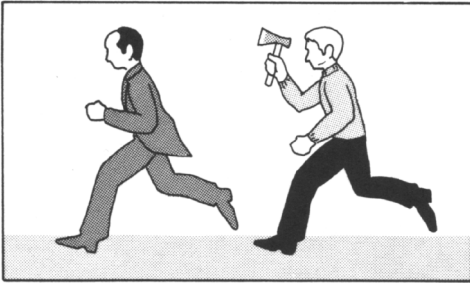
For instance, we might first be shown the general setting—always a good start. It is a crowded beach. Next we come in somewhat closer and see a family: father and mother in deck-chairs, and two children building sand-castles. Then we are brought close enough to observe that father is asleep. After this we

watch, from slightly farther away, the construction of the sand-castle. One child's spade is then seen in action from very close range. And so on.

As well as varying the distance you should vary the angle of filming—first from one side and then from the front, sometimes from above and sometimes from ground level. This becomes second nature with experience.

Take shots of different lengths

Each shot should last long enough to suit the action. Generally speaking, between 3 and 10 seconds is a reasonable length of time for a shot. In general, exciting close shots of swift action should be brief, while placid distant shots of peaceful scenes may last somewhat longer.



For swift action, 2-4 sec should be suitable; for placid scenes, 5-10 sec.

It is wise to vary the duration of shots during the filming of an event. A scene should never be dwelt upon to the point of tedium, and, conversely, we must see the subject for long enough to realize what it is and what is happening.

Make your film tell a story

The whole intention in filming is to tell a story, and not to string together a number of unrelated scenes.

This does not mean that you cannot make a film unless you are a successful fiction writer. It merely indicates that each scene should follow naturally from the previous one until a change of theme occurs.

Take a typical beginner's processed reel of film:

First we see a little girl in the school playground, looking cheerfully through the railings at the camera. Then the same child is playing with a puppy in a back garden. Now we see the child hand in hand with her mother at the back door. Then we are in the village street, where the child is talking with two older girls. Next the three girls are all smiling at the camera. And so on.

Now observe what could very easily have been done with the same characters and settings to make something approaching a story.

The first shot is a general view of the front of the house, with the front door beginning to open. Then we are somewhat closer, and see the door opening wide, to reveal the little girl and her mother. Next we see the mother's face in close-up, looking down and smiling reassuringly, followed by a shot of the child's uncertain expression as she looks up. The girl

SIMPLE RULES OF FILMING

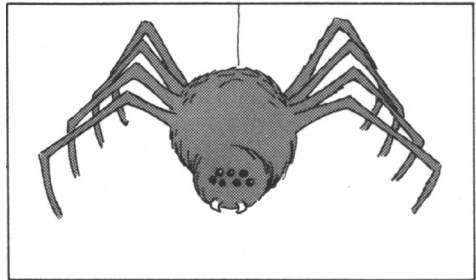
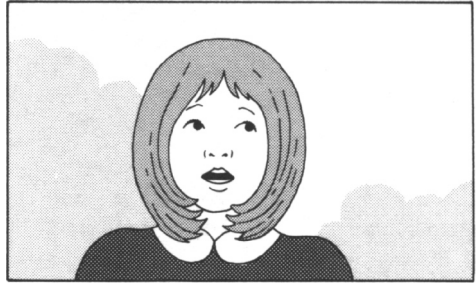
moves off hesitatingly, and we can now see that she has a schoolbag in her hand.

The camera follows her, from a short distance away, until at the corner of the street she is met by two other somewhat older girls with schoolbags. We see their faces as they meet. Now we have a back view, from the direction of the doorway, and as the three children move off down the street, the smallest girl turns and waves her hand, and then moves on with her friends. This shot could last as long as 10 seconds or so, until the three figures disappear around the far bend of the road.

The next shot is a general view of the village school. Now we see, from somewhat closer, the outer gate leading into the playground; children are entering in twos and threes. The viewpoint changes, and we see more pupils walking along the pavement towards us. We soon see that three of them are the three girls we have already met. Then we have a closer view of them approaching us, and as they pass the camera we see that they are smiling at each other. Lastly they enter the playground. The first school day has begun.

Now, the foregoing is not a "story" in the literary sense (although I suppose it could form

the opening scene of a fiction film). It is merely an attempt to demonstrate how simple it can be to film in the form of a pleasing connected narrative, instead of producing an unrelated bundle of moving snapshots.



Let each shot in a sequence lead naturally to the next.

2. THE CINE CAMERA

Gauge and format

The first question that confronts anyone who intends ultimately to produce complete films, as distinct from reels of baby on the lawn and occasional holiday records, is this: what is the best gauge or format to use? This is a vexed question, to put it mildly.

“Standard” gauge for film is, and always has been, 35 mm. At one time the odd intrepid amateur was to be seen lugging massive 35 mm equipment about, but those days have long since gone, and we leave 35 mm to the professional. Film narrower than 35 mm is called sub-standard, but the term narrow-gauge is far more often applied to it these days.

16 mm

The introduction of 16 mm film, in the early 1920s, was what really started movie-making as a hobby. For the first ten years or so of its existence, 16 mm was the amateur’s own gauge, and a considerable number of non-professionals still use it and swear by it, for several very good reasons.

There are two distinct types of 16 mm film stock: silent and sound. The silent version has perforations at both sides of the frames, each

pair positioned at the space between two adjacent frames. These perforations are the means by which the film is transported through the cine camera and the projector. The sound version has perforations on one side only, leaving a clear space at the other side for the sound track.

16 mm film has a projection area of 9.65 mm in width by 7.21 mm in height, giving an aspect ratio of 4:3. This area is large enough to provide sharp, sparkling pictures on a screen 3 metres wide or more, using even the simplest cine camera. Indeed, 16 mm films may be, and sometimes are, shown in commercial cinemas.

New 16 mm equipment—cine camera, tripod, projector, animated viewer, splicer and so on—is undeniably expensive, and is, as a matter of fact, designed chiefly for instructional use in professional and educational organizations. A used 16 mm cine camera, however, can be surprisingly reasonable in cost, making this gauge worth considering by the person who is willing to take the risks attached to purchase of used equipment—absence of guarantees, possibility of unsuspected faults due to years of wear, and the chance that spare parts might cease to be available.

The 16 mm film is undeniably easier to

handle than smaller sizes, as it is possible to see the image clearly with the naked eye. This makes editing and splicing straightforward.

A wide choice of film stock is available in this gauge, including monochrome (black and white) if required. Negative or special reversal film may be purchased, and these make it possible to have as many copies printed as one wishes. A "cutting copy" may be used for rough editing, and the negative cut to match this and then printed, so that the final copy need have no splices.

The 16 mm size is also the only narrow-gauge film to which "opticals" can be added by professional firms after processing—that is, effects like fades and dissolves.

If a person possesses a 16 mm optical sound projector, he may show all manner of professionally-produced films which are available on hire in this gauge from many sources.

Nevertheless, despite these and other advantages, it remains a fact that only a very small percentage of amateur film-makers now use 16 mm. It is the gauge for the specialist with a good deal of time to spare. The equipment is very heavy and cumbersome, and the cost of film stock and of new equipment amounts to two or three times that of comparable equipment in the smallest gauge. If the user wishes to add his own sound track to 16 mm films he has made, he will need a projector designed for both optical and magnetic sound, and that is an expensive piece of equipment.

16 mm, however, is a proposition worth serious consideration by groups and clubs, and by individuals willing and able to foot the bill.

9·5 mm

An alternative to 16 mm is 9·5 mm. Originating in France in 1923, and almost unknown in the U.S.A., this film uses an unconventional method of transport through camera and projector. While all other gauges have the perforations down one side or both sides of the film, 9·5 uses almost the full width of the film for the picture, and the perforations are in the centre, between the frames. Thus, although the film stock is narrower and therefore somewhat cheaper, the actual frame size (8·2 mm by 6·2 mm projection area) is not much smaller than on 16 mm film. Incidentally, if a sound track is added down one side, the format of the picture becomes not far from square.

The way to obtain 9·5 mm equipment is by mail order. Few shops stock 9·5 mm film, and it is not cheap. The future of the gauge is undeniably uncertain.

Standard 8

Standard (or regular) 8 mm film stock is, in its usual form, actually 16 mm in width, but has twice as many perforations on each side. Its 7½-metre (25 ft.) length is first exposed in the cine camera down one half of its width. The camera is then opened in subdued light, and the two reels are interchanged. The camera is now closed again and the other half width is exposed.

After it has been processed, the film is slit down the centre at the processing station, and the two pieces are joined end to end to make one 15-metre (50 ft.) length of 8 mm film, with the perforations down one side, ready for projection.

Both film and equipment are comparatively inexpensive in this gauge. In particular, second-hand standard 8 cine cameras and projectors may now be had at a fraction of their original price. The cameras are also very portable.

Though the film is so minute (projection area 4.37 mm by 3.28 mm), there is room on it for a sound track alongside the pictures. A number of professional films, including some of the great movie classics, are available for hire in 8 mm form.

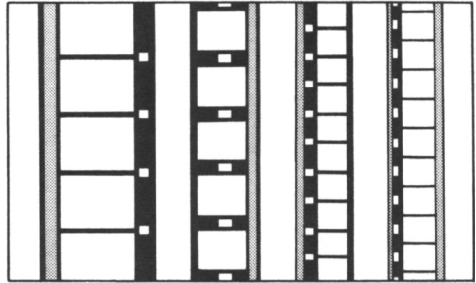
The quality of 8 mm colour film has improved over the years. In the average-sized room the image on a metre-wide screen is as bright and clear as anyone could wish, and even a two-metre-wide image is surprisingly good.

Until a few years ago there was no reason to doubt the triumphant leadership in popularity among amateurs of standard 8.

Super 8

Super 8, introduced in 1965, has almost completely replaced standard 8, so far as the manufacture of cine cameras for amateur film-making is concerned. The redesigning of the film format made it possible to achieve an approximately 50% increase in picture area (5.36 mm by 4.01 mm), and this gave a better quality image without any increase in the size of the camera. The perforations were placed in a more sensible position, alongside the frames instead of next to the narrow space between them, so that if a film had to be cut and spliced, the join would be stronger, not being across a perforation.

The space for the sound track was provided on the opposite edge to the perforations, giving



Though most amateurs buying new equipment choose super 8, there are several alternatives. Good films can be made in any gauge or format. Sound may be recorded on a track along the edge of the film. Above: 16 mm, 9.5, standard 8, super 8.

better quality sound. A standardized claw position in cameras and projectors, and a space for a "balancing" stripe, were both to contribute towards an improvement in sharpness of image.

The manufacturers took the opportunity of the redesigned format to have a fresh look at the problem of loading the cine camera, which, with the standard 8 reel-to-reel threading-up method, was rather troublesome to some people. In the past various attempts had been made to simplify loading by putting the reels in a charger or magazine. None, however, proved popular.

The super 8 system uses a single-run film, 15 metres (50 ft.) in length, sealed in a light-tight plastic cassette. To load, you simply open the camera and drop this cassette inside. The cassette may be removed from the camera at any time without the wasting of more than a few frames of film. Moreover, with this system it is impossible accidentally to run a film through which has already been used.

The cassette has special notches cut in it which automatically set the camera exposure system to suit the speed of the film.

The system has a further advantage. Normally, colour film is sold in two distinct forms—daylight and artificial light. The latter type of film has a slightly blue colour cast, to cancel out the redness of artificial lamps. Super 8 film is normally available only in the artificial-light form.

For outdoor filming, a reddish-coloured filter in the camera is positioned behind the lens, so that the colour rendering is correct. When filming indoors with artificial lighting, the user inserts either a lamp-holder or a special key into a slot on top of the camera, and the filter moves aside. Thus when filming outdoors there is no need either to change to special daylight film or to take the trouble of fitting a separate filter by hand.

Although super 8 equipment has almost completely replaced standard 8, the older film stock is still readily available, and many projectors manufactured today can handle both types of film. Doubtless, like 9.5, it will remain available as long as the demand continues.

Super 8 has, however, certain limitations.

In the first place, owing to the design of the cassettes, the film cannot normally be wound back in the camera and exposed a second time. This would seem to mean that special effects involving double exposure are not possible: these include superimposed titles, transparent ghosts, split-lens effects such as one person playing twins, and the dissolve, or mixing of one shot with another. Such effects are, admittedly, used by only a small minority of film-makers; and dissolves seem to be going out of fashion.

It is possible, however, to buy a type of super 8 cine camera which can wind super 8 film back a sufficient distance into the cassette to make dissolves possible. Further, super 8 film is available in large reels in double-run form,

as an alternative to single-run in cassettes, and cine cameras are available to take this form of super 8 film.

With such equipment, all special effects possible on standard 8 may be produced on super 8.

In addition, a contrivance is available incorporating a half-silvered mirror, by means of which titles may be superimposed on a moving film background and filmed with any cine camera. There are other possibilities, such as simply filming through glass, which would not involve the purchase of special equipment.

Super 8 has another disadvantage which should be kept in mind. Owing to the cost of these expendable cassettes, and also to the fact that a 15-metre (50 ft.) reel of super 8 lasts only three and a third minutes as compared with about four minutes for standard 8, super 8 is somewhat more expensive.

Single 8

Another single-run 8 mm film system, single 8, has a format and perforations identical to those of super 8. The film stock in this case, however, is of a thinner material—polyester, instead of the conventional tri-acetate or propionate. This makes the roll of film less bulky. Polyester is extremely tough and flexible, and the quality of the colour film stock, which is made in Japan, is very good. (Incidentally, super 8 film on a polyester base has also appeared on the market.)

Single 8 uses a cassette of an entirely different design from that of super 8. The film coils, instead of being side by side, are spooled one above the other, and this makes it possible for single 8 cameras to be very slim.

Single 8 colour film, unlike super 8, is sold in two forms, daylight and artificial light (or tungsten). This means that the convenience of the automatic conversion filter is absent from single 8 cameras, and cassettes of film must be exchanged—or a filter fitted by hand—if different lighting conditions are to be used during the shooting of one roll of film.

The pressure-plate in single 8 is situated not in the cassette (as in super 8) but in the camera; and it is made of metal, not plastic. This ought theoretically to give a more precise positioning of the film—though in fact many experts have been unable to notice the difference.

A further advantage of single 8, and a real one to advanced workers, is that the design of the cassette makes back-wind possible. Only the more sophisticated single 8 cameras, however, have this facility.

Single 8 film (and any other film on a polyester base) has one serious drawback. Polyester film is not affected by conventional film cement; so splices must at present be made with cellulose tape. This is to some people a crucial objection, as tape is visible on the screen. Further, magnetic stripe cannot be fixed by the amateur to polyester film, but must be done professionally, thus adding to the cost of sound film.

Single 8 film is manufactured only by the company which introduced the system, though the cameras are made by several firms. Costs are comparable with super 8.

Widescreen

A widescreen effect (that is, an image with a wider aspect ratio than 4:3) may be produced on narrow-gauge film in several ways: by ex-

posing only half of each frame by means of a special mask in camera and projector, by using an unconventional camera on its side, or by fitting an anamorphic lens to camera and projector. The latter method results in the filming of a vertically-squeezed image, which is correspondingly “unsqueezed” in the projector. In the UK further information can be obtained from the Widescreen Association.

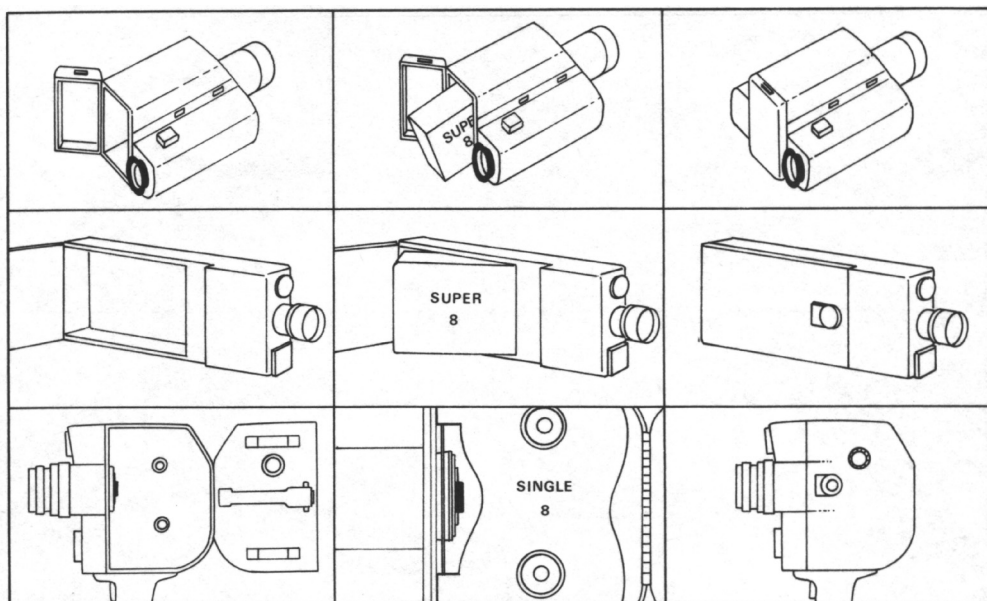
It is possible by using one of these methods to show at home a 3 by 1½ metre (10 by 5 ft.) picture—if you have room for the screen. If 8 mm film is used, however, the picture is not particularly bright, and is rather grainy in appearance.

Stereoscopy

One further modification of conventional filming might be mentioned here. Our natural vision is three-dimensional or stereoscopic; that is, each of our two eyes sees a slightly different image, and the two images, when combined in the brain, give the scene an impression of solidity.

It is possible to simulate this on the cine screen. The filming may be done with two synchronized cameras placed side by side. The two images are then projected simultaneously with a pair of synchronized projectors, and viewed through special polarized spectacles. The result, however, is not always genuinely “solid”; in some cases, the objects standing in the foreground appear to be flat and cardboard-like.

Future developments, involving lasers, seem to be more promising, but are not at the moment practical propositions for the amateur.



To load a super 8 camera, open the door in the back or side, insert the cassette, and close the door.

To load a single 8 camera, open the side door, place the cassette so that the film is in the gate of the camera, and close the door.

Loading the camera

Loading, with super 8 cameras, simply requires that the hatch on the side or end of the camera be opened, the cassette placed inside and the hatch closed again securely.

There can be no mistake with loading super 8 because the cassette cannot be fitted in the wrong way round. The film counter will be set automatically.

With single 8 it is necessary to be sure that the short section of film which protrudes from the cassette is placed carefully into position in the gate, so that the pressure-plate, or pad, of the camera will engage properly.

In both types, the end of the film is reached

quite positively because the camera claw ceases to engage at that point. This is usually indicated in one way or another in the camera by a signal.

Loading standard 8 cameras is less straightforward. There is really only one method, but with slight variations between one camera and another.

To load a standard 8 camera, remove the paper wrapping from the reel of film and place the reel the right side up on the feed spindle. This is usually the top one. Pull a length of film carefully off the reel, and pass it over a guide roller and behind the gate. In some of the more advanced cameras, a toothed sprocket is used instead of a guide roller, and this may