

Hints to Newsfilm Cameramen

by Nicholas Hiley

Although published in Jersey City, the survival of Pathé's *Hints to Newsfilm Cameramen* from 1915 gives a unique insight into the first ten years of British newsreel production. At the time of publication, their author, Paul Desdemaines Hugon, was managing editor of the American *Pathé News*, but he had spent the previous three years at the company's London branch, and his sole experience of newsreel filming had been gained in the editorial department of the British *Pathé Gazette*. It seems indeed that Hugon's *Hints* had originally been written for the guidance of *Pathé Gazette* cameramen, for despite their place of publication they still take care to explain how stories should be filmed for use in London, and how the low shutter speed of the Pathé camera makes it 'extensively used in climates like England.' It is likely that these printed *Hints* were also circulated in Britain, and they are thus of considerable interest in showing the context in which British newsreel cameramen operated, and in demonstrating the constraints under which they worked.¹

Hugon's entry into the newsreel business is easily described. When the *Pathé Gazette* was launched in 1910 he was aged twenty-seven, and had for some months been foreign editor of Lord Northcliffe's 1/2d. *Evening News*. The *Evening News* was the most commercially successful of the London evening papers, selling 500,000 copies a day in the south of England and making over £30,000 a year. At this date Pathé's London news department was under the control of Valentia Steer, a former employee of Northcliffe's 1/2d. *Daily Mail*, and as nominal editor of the *Pathé Gazette* he seems to have instituted a policy of staffing its editorial department with Fleet Street journalists. In 1912 Paul Hugon thus accepted an invitation to leave the *Evening News* to work in Pathé's London branch, and in the following year Patrick McCabe, the Paris correspondent of the 1/2d. *Daily Sketch*, was also recruited to the company, at first to write film publicity for the Paris studios but later to work in the London news department.²

In 1912 the organisation of the *Pathé Gazette* seems to have followed the standard newsreel pattern. As head of the London news department Val Steer was also nominal editor of the *Pathé Gazette*, but, as with a Fleet Street newspaper, much of the daily running of the newsreel was entrusted to a news editor. The likelihood is that Hugon was recruited to fill this role, and as news editor he would have been responsible for assigning cameramen to particular stories, in consultation with Henry Sanders, Pathé's chief news cameraman. In 1913 there was a change of staff when Val Steer left to establish a rival newsreel called the *Eclair Animated Journal*, but Hugon would seem to have continued in the role of news editor under Steer's replacement, a former schoolmaster called Eric Mayell. It was apparently as news editor that he gained the experience which would later be incorporated into his *Hints to Newsfilm Cameramen*.³

The outbreak of war in August 1914 brought considerable disruption to the Pathé organisation. As head of the London news department, it was Mayell's job to dispatch cameramen to France and Belgium, and Tommy Scales recalled

being ordered 'to go to Ostend, Belgium, to make what you can out of the war.' It is even possible that, like the editor of the *Gaumont Graphic*, Mayell himself travelled to France, leaving his news editor in charge of the newsreel. Whatever the circumstances, it seems that for a short time Hugon himself became editor of the *Pathé Gazette*, and in 1915 this experience stood him in good stead when he left to become managing editor of the *Pathé News* in the United States. It was in this capacity that he published his *Hints to Newsfilm Cameramen*, but he did not remain in charge of the *Pathé News* for long, for in 1916 he resigned and was replaced by Eric Mayell, who had also come over from London. The war had apparently disrupted both their careers, for after a few months Mayell himself resigned, and was replaced as managing editor by his own deputy. Meanwhile in London the *Pathé Gazette* passed rapidly through a number of different hands, until by the end of 1916 the nominal editor was its chief cameraman, Henry Sanders.⁴

Hints to newsfilm cameramen

P.D. Hugon

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CHAPTER I

What to Take

The object of motion pictures is to show motion. Only things in which there is motion are worthy of the cameraman's attention.

The subjects that make good news negatives are:

(1) All news subjects, i.e., the unstaged happenings of to-day, not yesterday, last week or last month; riots, disasters, great railroad wrecks, the activities of well-known men; and news **caught in the happening** is the only real news there is. The consequences of an event, ruins, wrecks, can only be of value if presented in a suitable manner.

(2) Pretty subjects, with good scenery, pretty girls, children, young animals, with some kind of a topical interest. But when it comes to girls, only the most strikingly beautiful specimens should appear.

(3) Photographic effects of light and shade, also with some kind of topical interest: a novel view of some building which is being talked about, a remarkable combination of natural beauties.

THERE IS NO DEMAND for pictures of the ordinary activities of boy scouts, local parades, lodge meetings, unveilings of statues or tablets (except when attended by the President), posed groups of delegates to conventions, or similar line-ups of persons much embarrassed by the camera.

A good general rule to follow is this: Never send pictures that do not tell their own story. Pictures that require lengthy explanatory titles never can be interesting.

MAKE SURE YOU GET **THE NEWS IN YOUR PICTURE**. To every event there is **one** and one only; if a man has invented a new engine, we want to see the man and his engine in the same picture. If in doubt, write out the story **in two lines**, then take the picture showing just what you had in those two lines. If you cannot do that, you have missed the story.

GET LOCAL COLOR IN YOUR PICTURES. There are many scenes that you never look at, and never would photograph, because you see them every day; but people in other cities want to see them, just because they are different from their own surroundings.

The first scene of every subject should be a general view, characteristic of the place, containing the subject proper; the subject proper, although visible, being subordinate to this general view. For example, if you were taking the visit of the King of England to Berlin, **for Berlin**, you would take close-ups of the King, and not trouble about Berlin streets. But if you were taking the same subject **for London**, you would show the royal equipage coming down *Unter den Linden*, showing the architecture of the place. The close-ups of the King would be almost superfluous.

The same applies to **your** town. Other people want to see it in your pictures.

Specific recommendations for certain subjects are given below.

Races

Where **speed** is the dominant factor **turn slowly**, about half speed. Failure to do this is unpardonable. Remember then that you must shut down your iris diaphragm so as not to over-expose.

Take all moving objects coming **toward** the camera, never going away.

Every race must show at least four scenes: beginning, middle, finish, winner; and if possible an extra scene in the middle.

Parades

A parade is only worth taking if there is something decidedly new in it; and you can never say that there is until you have succeeded in stating what it is in writing.

Owing to the speed of the movement across the field of vision, and to the nearness of the subject to the camera, a float is almost impossible to photograph successfully when in motion. Pick out two or three of the best floats, and take still pictures of them either before or after the parade, showing of course, the people seated on them as they were in the actual parade. A parade must be very interesting indeed to justify the usual street scenes.

Shows

Find out from the man who knows what are the points that make one exhibit more successful than another and go for those points and write them clearly in your 'dope'. For instance, 'This pony won a prize for condition, owing to the lustre of its coat and the length of its tail'. If you cannot write such a title, then you have not grasped the important points yourself, and it is a certainty that you have not got the right picture.

CHAPTER II

How to Take

Composition (i.e., artistic arrangement of subject):

Most subjects must be taken successively from two distances.

First from a fair distance, to give a general view of the object and its surroundings. Secondly from as close a range as possible to give detail. Most positions taken by cameramen are intermediate between these two, and therefore wrong. If you will reflect for a moment, you will see that the way of viewing a subject is to get a general view as you approach it, after which it is important to get up just as close as possible, and inspect the subject minutely. If you cannot get close up, you can sometimes use a six-inch lens with the same effect. Every cameraman going out on a difficult job should always carry a six-inch lens with him.

Sky

Sky is only permissible with a very fast exposure when a good cloud effect is to be obtained. In other cases, sky must be masked by means of a tree, a flag, etc. Never more than one-fifth of the picture should be blank sky.

Water

Water in a picture is almost as undesirable as sky, unless it is agitated. When taking pictures of ships, it is almost invariably necessary to get close up, or to

use a long focus lens. If the picture has to be all sky and water (e.g., in the case of a ship at sea), take one-third sky and two-thirds water. Whatever you take with water in, make sure your horizon is perfectly level, as nothing looks worse than water running up a hill.

Silhouettes

Any imposing, towering object makes a good silhouette effect, obtained by under-exposure.

Focus

1. You cannot be too particular about crisp focus. Whenever you are able to do so, carry a newspaper with big headlines, and have someone hold it upside down for you at the exact distance at which the person to be photographed will stand, and focus on it.

2. When the light is very good and you can stop down to $f/6$ there should be no difficulty about focus, as every subject from a few feet to infinity is in focus when focus is set for infinity.

3. It will be much more noticeable if a near object is out of focus than a distant one. If you cannot get both in focus, focus on the near one; but you can generally get both in focus by focussing on the distant one and stopping down (i.e., shutting your iris diaphragm to $f/11$ or so).

4. Quite frequently a negative made at $f/16$ with the very best lighting conditions looks out of focus. This is due to **halation**, a very painfully frequent occurrence in the South and at sea. Halation is caused by too much white light striking one object (or one part of the picture). This light spreads over the dark parts, covering up the sharp lines and making them look hazy and out of focus. To avoid halation avoid white clothing, sky, objects that reflect a lot of light; and carefully guard your lens from reflection of the rays of the sun inside the lens shade. Every photographer working in Southern climates is advised to purchase a yellow light filter and to make use of same during the brightest hours of the day, particularly in the summer months. The filter makes it necessary to **increase the exposure** 3 times for an x3, 6 times for an x6, etc. The x3 is quite sufficient.

Exposure

Not one day passes without twenty dollars being lost to one cameraman or another, and often one hundred dollars or more, owing to incorrect exposure. It takes a lifetime to learn exposure by practice. It takes two hours by means of a 50c exposure meter. If dollars are worth more to you than cents, order one right away now from your photographic dealer. **Welcome's** is the best.

If you use Pathé negative stock, always remember that it is very much faster than any other.

The following rules are given only to make you realise the need for a thorough study of the subject:

1. The object to be photographed

The **nearer** or darker an object or person to be photographed the **longer** the exposure required. The following are the relative values of subjects most frequently used in news films:

- Portrait in shade, 7 feet away.....4
- Three-quarter figure in shade, 12 feet.....3
- Half length figure in **sun**, 7 feet away.....2
- Houses, street scenes, light and shade.....1
- Snow, yachting, open beach scenes.....1/4
- Open sea, distant yachts.....1/8

This means that, to take a yacht race, you require 32 times less exposure than to take a portrait of someone standing in the shade.

2. Shutter and iris diaphragm

There are two means of altering the exposure: the shutter and the iris diaphragm. For ordinary subjects it is better to keep your shutter at a fixed speed, so that you do not forget that you have changed it. One-fiftieth of a second is fast enough for habitual use. You can then alter your iris diaphragm to suit your light. When you see the subjects on the ground glass, you therefore know what depth the shadows should be. At a fiftieth of a second, the details in the shadows should be clearly visible in the ground glass, at the point at which you cease stopping down. For example, if we have to take a general view of a parade in very bright sunlight in June about 2 o'clock, on Pathe stock, we have the choice of the following approximate exposures:

- 1/600th of a second at f/3.5
- 1/300th “ “ “ 5
- 1/150th “ “ “ 8
- 1/75th “ “ “ 11
- 1/50th “ “ “ 14
- 1/35th “ “ “ 16

We would choose 1/50th of a second at f/14, because this would give us 'depth' (i.e., both the foreground and the background would be in sharp focus) and it would be fast enough to catch without distortion the movements of the paraders.

If, however, in the same lighting conditions, we had to take a yacht race, our choice would be more difficult.

- 1/2400th of a second at f/3.5
- 1/1200th “ “ “ 5
- 1/600th “ “ “ 8
- 1/300th “ “ “ 11
- 1/100th “ “ “ 16
- 1/75th “ “ “ 22
- 1/40th “ “ “ 32

It will be noticed in this case that all the speeds necessary to avoid over-exposure, when the iris diaphragm is wide open or nearly so, are greater than habitually found on shutters of moving picture cameras. We must therefore stop down to between f/22 and f/32.

Sometimes, again, a fast exposure is essential, as in aeroplane pictures. It is clear, in such cases, that the necessary aperture of the iris cannot be estimated by looking at the object on the ground glass. It requires a calculation, which is found ready made in the exposure meter. Remember, when taking pictures **from** aeroplanes to allow for vibration, and to increase your speed as much as possible.

Don't waste any more film. It does not pay. Get that meter right now, and use it on every occasion.

3. Shutter speeds

For each turn of the handle, eight pictures are exposed. The handle is turned twice in one second. Therefore 16 pictures are exposed in one second. Therefore the speed of the shutter is always the same when the handle is turned at the regular speed. This means that the shutter (the whole of the shutter, which is a circle) goes round in one-sixteenth of a second. But it is not possible to obtain a sixteenth of a second speed **on the film**, because a portion of the time that the shutter takes to revolve is occupied by the movement of the picture downward. That interval is marked by the dark part of the shutter.

Now, if the whole circle (consisting of 360 degrees) revolves at an even speed of one-sixteenth of a second, **one degree** passes a given point in 1/360th of 1/16th, i.e., 1/5760th of a second. Ten degrees take 1/576th of a second, and so forth. It will be seen, therefore, that the time the film is exposed to light (what is called the speed of the shutter) **depends entirely on the angle of the open part of the shutter**.

For any camera on the market, the speed is the same for the same angle of opening. But some cameras have shutters that can be opened or closed more than others, and are, therefore, capable of longer or shorter exposures. The De Brie camera, for instance, cannot operate as slowly as 1/30th of a second; but it is capable of operating at a 5000th of a second. The Pathe camera, on the other hand, being extensively used in climates like England's, operates at 1/29th of a second if required.

Practical Approximate Speeds of All Moving Picture Camera Shutters

Half and half opening.....	1/30th of a second
One-third open and two-thirds black.....	1/50th “ “ “
One-quarter open (right angle).....	1/60th “ “ “
A little under right angle open.....	1/100th “ “ “
An inch opening (at widest part).....	1/200th “ “ “

Exact speed of all moving picture camera shutters, according to angle of opening

(Calculated When Camera Handle Is Turned at Normal Speed)

<i>Angle of Open Part</i>	<i>Speed</i>
1 degree.....	1/5760th of a second
5 degrees.....	1/1152nd “ “ “

8 degrees.....	1/720th	“	“	“
10 degrees.....	1/576th	“	“	“
20 degrees.....	1/288th	“	“	“
45 degrees (half a right angle).....	1/128th	“	“	“
57 degrees.....	1/100th	“	“	“
77 degrees.....	1/75th	“	“	“
90 degrees (quarter circle).....	1/64th	“	“	“
115 degrees.....	1/50th	“	“	“
163 degrees.....	1/35th	“	“	“
180 degrees (half circle).....	1/32nd	“	“	“
192 degrees.....	1/30th	“	“	“
196.3 degrees.....	1/29th	“	“	“

Speeds of Pathé professional camera (outside magazines)

Shutter fully closed.....1/96th of a second
 Shutter fully open.....1/29th ‘ ‘ ‘
 (Other speeds according to angle, as above)

Speeds of Pathé news camera (enclosed magazines)

Word or number engraved on circumference of shutter.

Ferme	10	20	30
1/288th sec	1/158th	1/109th	1/83rd
40	50	60	70
1/67th	1/57th	1/49th	1/43rd
80	90	100	Ouvert
1/39th	1/35th	1/32nd	1/29th

Care in Handling the Negative

Steadiness. It is essential, to preserve the illusion which is the basis of the film business, that the pictures should be absolutely steady. A very large number of pictures are rejected owing to unsteadiness, which is due in many cases to defective screwing up of tripod or tilting platform. In other cases, unsteadiness has been found to have been due to the practice of cameramen of resting their left hand on the panoram or tilt handle, which thus shows a sympathetic motion.

Scratches. To avoid scratches, every nook and corner of the camera and magazines must be thoroughly cleaned several times a day, and the magazines (particularly the slot through which the film passes) must be cleaned every time they are changed. This can only be done with a stiff brush. Blowing is useless.

Panorams. There should never be a panoram, either vertical or horizontal, unless it is absolutely essential to obtain a photographic effect, and in any case the panoram should be, not **from** the main subject to others, but from others **to** the main subject, where the attention will finally rest. It is very much better to take two scenes than one panorammed scene. Panoramming is the lazy man’s remedy.

Length of scenes. As the average subject in a news film measures about 60 to 100 feet, it is to the cameraman’s advantage to avoid taking more than that

length. Several scenes, each 20 feet in length, stand the best chance of acceptance. Never turn less than ten feet if the object is still, and fifteen feet if it is moving.

Numbering. Every scene should be numbered at the end before the punches. This can be done by any agreed means, or by holding up one finger about one foot in front of the center of the lens for scene one, two fingers for scene two, etc.

Punching. Three punches should be made between each scene, i.e., each time the position of the camera is changed, or each time the light changes, or each time the distance of the subject changes considerably. This makes it possible to develop each scene separately and to get the best results in each case.

CHAPTER III

How to Dispatch the Negative

- (1) No negative should ever be sent by mail, as this is illegal.
- (2) All negatives must be sent undeveloped and uncut, packed first in a tin can, sealed with electrician's tape, and labelled with the cameraman's name and address, clearly marked 'Open in dark room only'. This can should be packed in a wooden or metal box, also bearing the sender's name and address, and labelled in accordance with the requirements of the railway companies concerning moving picture film.
- (3) The parcel should be sent by express, and by the very best company and its very best train. There is in every city one, and only one, express company giving the best service between that city and any other. Find out which it is; but don't wait till you have made a negative before doing so. Find it out to-day. Ask each and every express company: Do you guarantee that a parcel will get there by your service quicker than any other? How much quicker? When will it get there if handed in at such and such a time? Of what lines have you got an exclusive running monopoly? What is your best train out of this city, on which film can be shipped?
- (4) Inside the tin can containing the negative should be placed full list and fullest description of scenes, stating who, why, how, when, where; also newspaper clippings of the event or the programme.
- (5) Immediately after handing your negative to the express company, sent the editor a night letter (a day letter if necessary, but never a full rate telegram) in exactly the following form and words:
'Shipped by (state name of express company) this (evening or morning) to reach you (state what time).....feet of (name of subject) suitable for (state whether general edition, local edition, or special reel); event covered by (state names of competitors who took the scene).'

(If local competitors took scene, state when they will release.)

CHAPTER IV

The Golden Rule

Make as good a picture for others as you would like others to make for you

Nothing but the very best is good enough. Think, and think hard, how you can make the best picture. Put it all down in writing; **plan** your scenes; first I shall stand there, to get the best general view. Then I shall walk around the crowd to this spot, which will be held for me by my friend So-and-So, and make a close-up. I shall want my two-inch lens for this scene and the six-inch for the other. The event will take place at such and such an hour: therefore the sun will be there, and I must turn my camera that way to get the best composition. That tree would nicely mask the sky. I must take my position so as to include that branch in the picture. I will have everything ready to ship the film, etc.

There is plenty of room at the top of your profession, but you will not get there by standing about or just grinding away. Brain work is ultimately the only way to big money.

And the money is there waiting for you.

Paul Hugon's *Hints to Newsfilm Cameramen* is thus a fascinating document, which gives a valuable insight into early newsreel production, but it is worth asking how far it describes the ideal of news filming rather than its reality. Hugon was after all a journalist rather than a cameraman, and his background was not even in news reporting. Before joining the 1/2d. *Evening News* in 1909 he had spent three years as a teacher at the City of London College, where he was principally known for his work on universal languages. He had in fact been the college's tutor in Esperanto, and in 1906 and 1907 had published works on this artificial language, before joining the international commission that developed a variant known as Ido. In 1908 Hugon had not only collaborated on the first Ido dictionary, but had also produced a guide to *The New Esperanto*, a book of *Practical Grammar and Exercises*, and an *International Phrase Book*. Even during his time at the *Evening News* his publications had been on Ido, including in 1909 an *International Commercial Lexicon* and, in 1910, a book of *English Idiom Rendered into the International Language*.

The 33-year-old writer of these *Hints* had thus gained his knowledge of news filming at second hand, among colleagues whose concepts of news were largely derived from the London morning papers. The newsreels indeed took their lead from the London press, and it was noted in 1915 that a visitor to the editorial department of the *Pathé Gazette* 'would find quite a number of people busily engaged in reading the day's papers with scissors in their hands': 'For this is one of the means by which subjects suitable for filming are found, and it results in quite a sheaf of cuttings being placed upon the editor's table for his consideration.' Newsreel editors in fact tried to cover the same stories as the London papers, and it was reported that in addition to his cuttings the editor compiled "a tabulated statement of what may be described as 'fixed' functions, such as a race meeting, a motor competition, a flying-machine test, a society wedding, and what not, to which operators are dispatched." As on a London newspaper, the editor also obtained up-to-date news from the agency ticker-tape, 'and every now and then this machine is consulted lest anything of value should have escaped attention.'⁵

Having determined the stories to be covered that day, the editor or his news editor would give the cameramen their assignments. Each newsreel possessed its own full-time camera staff, and in 1911 Pathé's London manager informed one interviewer that the *Pathé Gazette* could call on 'six regular photographers, in addition to several men who are employed from time to time.' In 1913 Val Steer observed that all the major newsreels now had "a home staff of five or six cinematograph 'reporters'", and that in consequence 'everything is done exactly as on a newspaper, with the exception that instead of saying, 'Jones, go and write me a half page column of the wreck at Dover,' or whatever it may be, the editor says, 'Go and get me 50 feet,' or whatever length he thinks the subject requires.' The cameraman's instructions could indeed be as vague as this quotation suggests, and Bertram Brooks Carrington recalled being sent out on one assignment for the *Gaumont Graphic* with the words 'you know what I want Brooky, go out and get it.'⁶

Most of the practical work was in fact left to the newsreel cameraman. It was observed in 1911 that he thus 'leads a very strenuous life, and...must not be a man who studies his own comfort overmuch': 'Not only is he constantly travelling, a wearing process, but the actual work involves in many cases both difficulties and dangers...It is quite an ordinary item in the day's work for a photographer to cover two or three hundred miles by rail, obtain the desired pictures perched on some perilous vantage-ground, and return to headquarters within forty-eight hours.' It was noted in 1915 that although distant assignments were sometimes covered by local representatives, "with 'stop press' events an operator is sent off right away, more often than not from headquarters, and has to make the best speed he can on the journey and the best of things on his arrival." As one weary cameraman admitted, 'it is no uncommon occurrence to be packed off at very short notice on an all-night journey to Scotland or Ireland, take your picture on the following day, and then another all-night journey back to London.'⁷

The reward for all this work was, however, remarkably slight. It was acknowledged that although a news cameraman would get 'plenty of trudging about with nearly half a hundredweight of camera outfit to haul, to say nothing of occasional semi-suffocation in crowds and the inevitable long hours of waiting without adequate food,' he was not likely to be well paid. Indeed, it was admitted in 1911 that he would get less than the press photographers with whom he worked, for 'while the latter may be paid from £4 to £12 per week, the cinematograph operator only receives a salary of from £2 to £5 per week, though he may get a percentage on the sale of his negatives.' When Thomas Sarll joined the *Pathé Gazette* in 1912 he was thus paid only £2. 15s. a week, and when sent to film the Balkan War was informed by Pathé's London manager 'that he would have no increase in salary, but they would reward him on his return if he got good pictures.' There was undoubted competition for places on the permanent staff of the newsreels, but this was only because many cameramen were recruited from the darkrooms, where the basic pay in 1912 was just 30s. a week.⁸

The fierce price-cutting between rival newsreels meant that they had indeed to be run on a shoestring. If a newsreel cameraman wanted a decent wage he was best advised to switch to studio filming, where by 1917 the cameraman's wages ranged from £3 to £10 a week, 'depending on the studio and the quality of work turned out.' The large firms like Pathé and Gaumont even tried to save money by combining their newsreel filming with local sales and rental, thus forcing wages even further down. Ken Gordon, a technician who joined Gaumont's

Newcastle branch in 1912, was thus not only responsible for filming local stories for the *Gaumont Graphic* but had also to sell and install Gaumont projectors, and yet received no more than £2 a week. Pathé employed a similar network of local representatives, and in 1913 the news cameraman at its Liverpool branch, Jock Gemmell, was given the task of launching a separate 'Northern Edition' of the *Animated Gazette* by filming local stories and adding them to the standard reel. Given the need to cut down expenses it is quite possible that Hugon's booklet was part of a further attempt to reduce costs by encouraging local freelance cameramen to take over this work.⁹

Despite their poor wages, it was the newsreel cameramen who had the task of turning the editor's vague suggestions into a story, and this was by no means easy. Many news stories picked from the London newspapers turned out to be unsuitable for the newsreels because of poor lighting conditions, either because they took place inside buildings or outside in bad weather. On these occasions the newsreel cameraman was badly beaten by his Fleet Street colleagues, for at about 400 H. & D. an Ilford 'Press' plate was a third faster than Eastman film stock, with its speed of only 300 H. & D., and twice as fast as most other makes, which measured only 200 H. & D. When faced with bad lighting a press cameraman could either take advantage of these faster emulsions, or employ a magnesium flashlight to illuminate the scene; but if a newsfilm cameraman wished to overcome bad lighting he had little alternative but to intervene in the event itself. When Jack Smith was sent to film a boxing match for Barker Motion Photography in 1914 he was thus forced to surround the ring with twenty arc lamps and reflectors in order to get the intensity of light that he needed.¹⁰

By 1915, newsreel cameramen had access to a number of different speeds of negative stock, including 'ultra-rapid,' but they were still slow by comparison with glass plates. As a result cameramen were advised to record the details of each shot in a notebook, including a careful note of 'the film used, the general atmospheric and other conditions, and the shutter setting and lens aperture.' This allowed each shot to be developed separately if necessary, but the British climate was still a considerable problem for news cameramen. Many of their negatives were entirely ruined by fog or rain, and it was admitted that 'the only adverse circumstance that they really fear is bad weather.' As early as 1912 it was acknowledged that the newsreels were 'much easier to produce in summer than in winter,' and in 1914 Eric Mayell of the *Pathé Gazette* confessed that winter remained 'the great dread of we poor editors', for 'very little is happening out of doors, and even then, more often than not, the light is too bad to take films.'¹¹

There were two ways in which a cameraman could combat bad light. One was to use a slow shutter, and by working as low as 1/29th of a second the Pathé news camera undoubtedly gave the *Pathé Gazette* cameramen a slight advantage, for most other cameras had a shutter that would not open beyond 170 degrees, giving a maximum exposure of only about 1/32nd of a second. The other method was to use Eastman stock, for although the Pathé stock was fast the Eastman stock was moderately orthochromatic, meaning that although it was still over-sensitive to blue and under-sensitive to red, its sensitivity to yellow light had been improved. Even this slight extra sensitivity gave it a considerable advantage in newsreel work, for it was noted that in Britain the blue end of the spectrum tended to be very weak 'in towns, where the atmosphere is more or less foggy, with a yellow sooty haze, and even in the country in winter time.' In 1913 Eastman had also begun experimenting with panchromatic negative film,

but there were still considerable problems in handling a negative that was sensitive to red light, for it naturally had to be coated and developed in complete darkness.¹²

Yet even when the light was favourable a newsreel cameraman could still face considerable problems in getting through the crowds that surrounded a news event. Some cameramen chose to film over the heads of spectators by using a tall tripod, but here they ran the risk of being pushed over as the crowd swayed from side to side, or of being pelted with mud and rubbish by those whose view they obscured. At sporting events the risk of injury was indeed considerable, and it was said that one London cameraman who erected his tripod in the middle of a Welsh rugby crowd was not only shouted at by spectators but also been beaten up when he tried to answer back. The golden rule on such occasions was to get one's pictures as fast as possible and ignore all intimidation, but, as one nervous cameraman admitted, 'it takes more courage to face an angry football crowd than to cross over Niagara on a tight rope.' The problems of finding a suitable 'pitch' for the newsreel camera were never ending, and at the siege of Sidney Street in 1911 the *Pathé Gazette* cameraman was only able to get his equipment through the crowd by the desperate expedient of clinging to the back of the Home Secretary's car.¹³

At official functions the newsreel cameramen faced even greater problems of access. In May 1912, when King George V made an official visit to Aldershot, editors were told that only one cameraman could be granted access to the King, and that the rival newsreels would have to decide 'how much you are willing to pay for the privilege.' Alfred Sowerbutts, the general manager of the Warwick Trading Company, was outraged by this blatant interference with 'the absolute right of the public press to send men down to photograph a public ceremony,' but when a cameraman from the *Warwick Chronicle* tried to film without permission he was immediately arrested. According to Frank Bassill of the *Pathé Gazette* it soon became difficult for a newsreel cameraman to get within a hundred yards of the King, and even the possession of a permit was no guarantee of access to royal events. In April 1914, when the editor of the *Topical Budget* sent a cameraman to Westminster Abbey to film the Royal Maundy ceremony he was threatened with arrest by the police, despite having 'a permit from the Abbey authorities...which was shown to the inspector.'¹⁴

The problems of getting close to the news were further increased by the available technology. The standard 2" and 3" camera lenses were thought to approximate most closely to the human eye, but this struggle for naturalism caused enormous practical problems. In terms of distance these short-focus lenses were effectively limited 'to a range of two hundred feet,' and in addition, as the editor of the *Pathé Gazette* admitted, 'the angle of the lens is very small, making it often a matter of luck for any person, etc., to keep in the field for more than a second or two.' The camera support added to this problem, for tripod heads which permitted the camera to both 'pan' from side to side and 'tilt' up and down were still a comparative novelty, and any cameraman forced to follow these awkward manoeuvres was advised to employ an assistant to operate the panning and tilting handles, or risk missing the picture altogether. It is hardly surprising that, despite Hugon's appeal for 'news caught in the happening', newsreel cameramen tended to favour static shots or those which contained only a small amount of movement.¹⁵

The fear of missing the action was ever present. As one expert observed in 1911, 'a wrong focus or some trifling neglect of detail may lead to heavy

loss...and five pounds' worth of films can be rendered useless in as many minutes': 'In addition, the picture is lost and the opportunity of getting the subject, in many cases, may not occur again...The important incidents are over quickly, and if anything goes amiss with the camera at the critical moment, the operator is face to face with failure.' In order to compensate for the deficiencies of his 2" and 3" lenses the news cameramen was thus advised to carry 4" and 6" lenses, for use 'when one cannot get near enough to some special place or person.' In a number of situations these were indeed the only lenses that could produce a viable image. At the Investiture of the Prince of Wales in Caernarvon in July 1911, for example, the news cameramen were stationed so far away from the King that they were forced to use 9' lenses to get a viable picture, whilst in 1914 the Pathé cameramen had to use similar long-focus lenses to film soldiers in the trenches.¹⁶

It was to solve these problems of movement and access that a new film camera called the Aeroscope was launched onto the British market in 1911. Built to the design of a young Polish inventor named Kazimierz Proszynski, the Aeroscope measured just 12" x 8 1/2" x 6 1/2" and weighed only 14 lb, making it the first professional film camera that could easily be carried in the hand. However, its principal attraction for newsreel work was that it could also be operated in the hand, for its mechanism was powered by a reservoir of compressed air which the cameraman charged up in advance, and the slight vibration of its air-engine was dampened by an internal gyroscope. A few minutes of diligent pumping would produce enough pressure in the cylinders to run two 300 ft. film spools, and an experienced cameraman could then use the Aeroscope to catch even the most fleeting effects by raising it to his eye and simply pressing the button. It has to be admitted that in practical terms the heavy gyroscope and limited running time were something of a drawback, but when the Aeroscope was skilfully used the results could be quite novel and very effective.¹⁷

The Aeroscope handbook deliberately compared the machine to a press camera, and its combination of lightness and ease of use indeed made it invaluable for difficult assignments. 'All that the operator has to do,' wrote one convert, 'is to sight his subject and to keep his finger on the button, while he follows the object on the view finder': 'He carries his camera in his hand or slings it across his back in the manner of a knap-sack. When he wishes to film an incident he is not harassed even by the crowd. He is not compelled to set up a tripod or to climb to an elevated point to get clear of the sea of heads. He can hold the camera above his head, and by means of a second and special view finder placed on the under side of the instrument he can sight and follow the subject while pressing the button.' In June 1911 a prototype Aeroscope was successfully used to film street scenes at the Coronation of George V, but the widespread adoption of the camera was delayed when the British firm manufacturing it ran into severe financial problems and collapsed. However, a second attempt was afterwards made with a modified design, and by 1914 the improved Aeroscope had been adopted for newsreel work on both the *Warwick Chronicle* and the *Gaumont Graphic*.¹⁸

Yet it was still only possible to use the Aeroscope on rare occasions, for efficient newsreel production demanded the standardisation of equipment. Although the different types of film stock had already been standardised there were still considerable variations between the different makes of camera, each of which would place the image in a slightly different place on the film in relation to the sprocket holes. If shots from two different makes of camera were edited together the image on the screen would suddenly jump up or down, and

as one early cinema projectionist recalled, 'one can imagine what a joyful time we operators had in trying to keep the picture correctly framed, especially when we were showing a newsreel containing subjects taken by half a dozen different cameras.' As a consequence of this the early newsreel companies tended to favour a single make of camera. In 1910 the *Pathé Gazette* was thus launched with the Pathé Professional, and the cameramen of the *Gaumont Graphic* were provided with the Prestwich, whilst in 1913 the staff of the *Eclair Journal* used the Debré Parvo.¹⁹

In many respects, Hugon's *Hints* are thus far removed from the practical problems of newsreel filming. The major difficulties faced by British newsreel cameramen were not artistic composition and dramatic action, but low wages, bad weather, heavy cameras, awkward officials, and argumentative crowds. Hugon might confidently declare that 'pictures that require lengthy explanatory titles never can be interesting,' but cameramen knew that such items were to be found in all contemporary newsreels. Val Steer admitted in 1914 that on the *Eclair Journal* 'we always reduce the length of our titles to the absolute minimum, but there are certain subjects which do not explain themselves on the screen at all, unless adequately sub-titled.' Alec Braid of the *Gaumont Graphic* agreed, acknowledging that 'even in these days of cheap and widely circulated newspapers it is not always safe to assume that four or five words will give sufficient information.' Hugon might equally instruct cameramen that 'most subjects must be taken successively from two distances' and recorded in 'several scenes, each 20 feet in length,' but it was still common for newsreel items to be composed of a single shot.²⁰

The best way to regard Hugon's *Hints* is as an attempt not to limit the problems of newsreel filming, but to reduce the problems of newsreel editing. Editors had little opportunity of manipulating a negative once it was delivered to the office, and, as Alec Braid of the *Gaumont Graphic* admitted, an inexperienced cameraman could thus leave the editor 'growling either because the subject has failed in interest or the negative is almost unprintable.' The provision of too much material was an equal problem, and Eric Mayell of the *Pathé Gazette* admitted that it was 'a heart-breaking task to run through hundreds of feet of quite interesting negative, the greater part of which has to be rejected.' Hugon's *Hints* were an attempt to overcome these problems by fostering a distinctive newsreel style, that could be adopted by cameramen as the basis of their filming, and would be instantly recognisable to cinema audiences. If both cameramen and audiences could learn this style of presentation then editing the newsreel would become far easier, and Hugon's *Hints to Newsfilm Cameramen* have thus to be seen not as an accurate description of contemporary newsreel practice, but rather as the vision of an ideal newsreel seen by an industry still in the grip of very practical problems.²¹

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