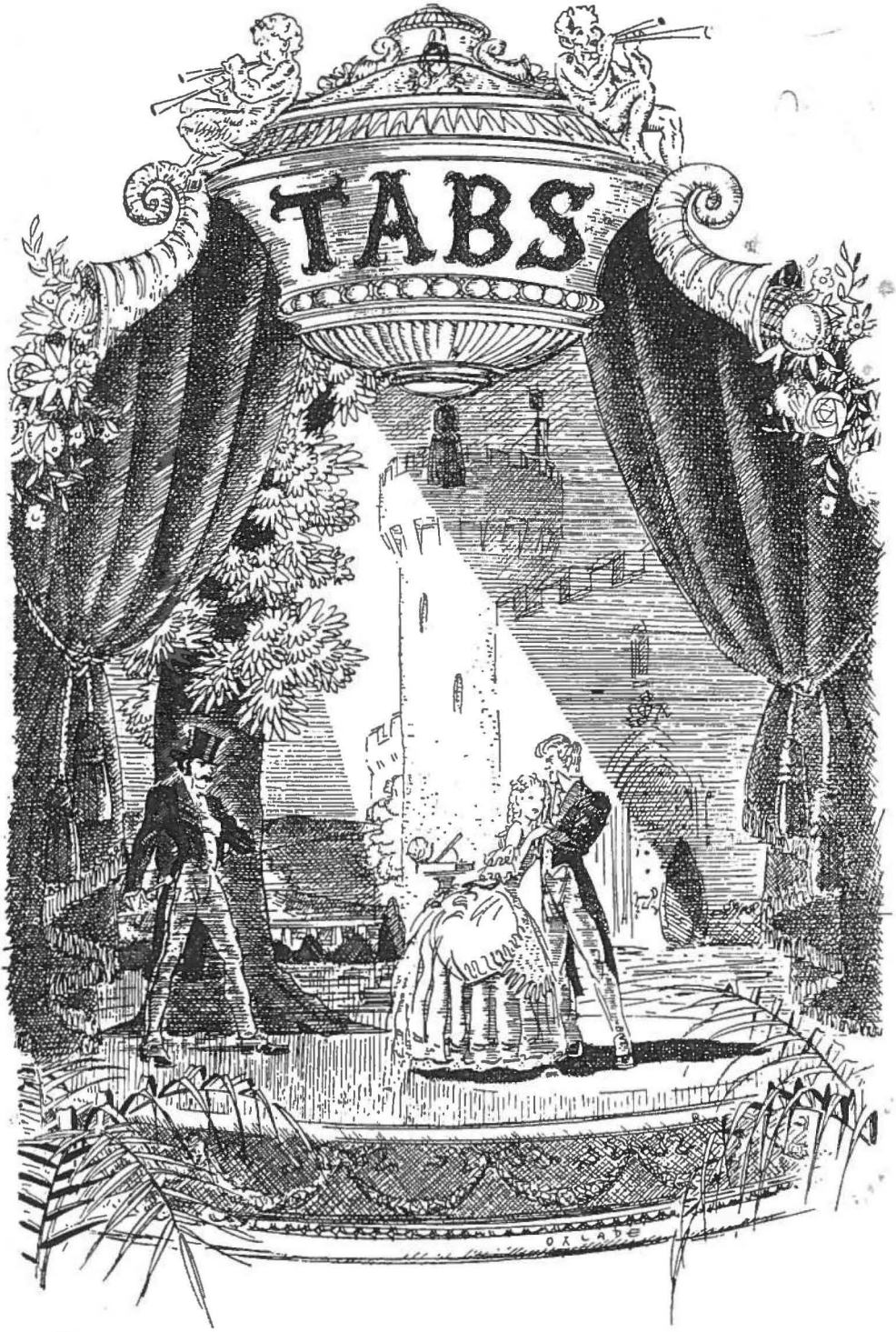

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TABS

Published by The Strand Electric and Engineering Co., Ltd. in the interests of the Amateur Theatre

CONTENTS

EDITORIAL

Every now and then we are asked for advice on the construction of home made stage lighting equipment. We should have thought it was obvious that it was hardly a commercial proposition for us to give advice on "how to do without Strand Electric". In any case, even if we were a Benevolent Society, we could not honestly recommend you to make your own gear. We know it is possible to jolly up a lamp into a biscuit tin but the waste of light and everything else is such that it just isn't an economic proposition, and the more poor and needy you or your Society may be, the more does this apply. On the other hand we are extremely sympathetic (at any rate we think) to those with shallow purses.

If people with financial as well as economic problems only come to us and put their cards on the table we always do our best to help them. We are pleased to suggest a means of building up a small installation from scratch over a period of as many years as economically necessary, and the fact that the same experience as we put into an Opera House or Drury Lane is available for those

with only a few shillings to spend still allows us to view each job on its merits, both technically and financially.

* * *

To prove our point we should like to reproduce, with permission, a letter just received from the Warden of The Boys' Hostels Association :

> " First of all let me thank you most sincerely for the time and attention you gave me on Monday last. You were so obviously interested in wanting to help us that I found it indeed a pleasant change from the usual curt attitude of the majority of people these days. I would like to repeat, that I would really like you to visit us one evening to see the boys in their leisure hours ; that would give you a good picture of the reason why I appeared so enthusiastic about them . . . "

* * *

Some interesting facts and figures have come to light as a result of the recent Old Vic Company's tour in Australia and New Zealand. The Strand lighting equipment which they took with them travelled a distance of approximately 19,000 miles and the total breakages sustained amounted to approximately 0.003 per cent. of its value. An outstanding tribute surely to the design of the equipment and the way in which it was packed and handled by all concerned. The mathematically minded may care to work out the percentage breakage per mile but there seems little point in gilding the lily.

Strand Pattern 43 spotlight being unloaded from aircraft at Dunedin, from Christchurch, New Zealand. The equipment on this tour travelled about 4,000 miles by air.

Packing cases for export are, of course, very much more robust than we can or need supply for goods travelling in the British Isles but as will be seen from the accompanying snapshot, the equipment in question by no means always travelled perfectly crated.

Incidentally the reason why the mileage travelled by the equipment was not infinitely greater was that it stayed in Australia. It aroused so much interest that there was some competition to purchase it rather than let it return to England.

Flattering though it is to receive requests for complete sets of back numbers of " TABS ", we regret that only a limited number of the two following issues are now available :

Volume V, No. 3 (December, 1947).

Volume VI, No. 2 (December, 1948).

Stocks of all other issues are completely exhausted.

* * *

A new publication which will be ready for distribution in January, 1949, is a catalogue—very fully illustrated—of the **decorative lighting fittings, fires, telephones and other similar props** which are available on hire from our London Office. A smaller range of hire fittings may also be obtained from our branches. A foreword has been written by Mr. John Fernald, producer of The Playhouse, Liverpool, and this is reproduced on page 13 of this issue.

A word of warning however about this catalogue. Although it contains over a hundred photographs, it is meant to give an *indication* only of what is available. It is primarily intended for those who cannot visit us in person to choose their fittings, so that they can give us by 'phone or post a sufficiently good idea of their requirements to ensure that we can send something similar to, if not an exact replica, of what they wish. Mr. Fernald has expressed this admirably in his foreword.

Our Brochure *Some Advice on Stage Lighting* has now been reprinted and copies are available to readers of " TABS " on request. The foreword is written by Mr. Emlyn Williams.

* * *

May we remind societies who are affiliated to the British Drama League and/or N.O.D.A., that they are entitled to a 20 per cent. discount off our hire charges. This is, however, subject to their placing their orders in writing on their official letter-heading, which makes such affiliation obvious to the world. We regret that this arrangement cannot hold good for any orders wherein the names of the society and/or the affiliation is shown in manuscript or typewriting. Neither we nor the headquarters of the B.D.L. and N.O.D.A. have time to check up on each and every occasion and therefore the printed letter-heading must stand as the proof of affiliation as far as we are concerned at the present time. We do not doubt, however, that there are certain societies who are affiliated to one or other body and who have not yet obtained printed letter-headings. We would only point out that the money expended on official stationery will, in the majority of cases be recompensed by the discount obtained on the first order placed with this company. " *Drama* " and " *N.O.D.A. Bulletin* " may care to bring this matter to the notice of their members again.

PLAYWRIGHTS MUST WRITE PLAYS

We are constantly assured that " the play's the thing ". Of course it is, but whether it is a thing of beauty and a joy for ever, or merely a thing of shreds and patches, is quite a point. It is reliably estimated that if the manuscripts of all the plays written in the last ten years were placed end to end they would encompass our unfortunate terrestial globe. It is also estimated, with panic-stricken apprehension, that if one per cent. of those plays were produced, life would be unbearable. The cult of realism in the theatre since Ibsen has deluded many aspirant dramatists into mistaking reality for realism. They laboriously re-produce commonplace speech in dialogue form and fail to realise that the result, whatever else it may be, is not a play. One may listen for hours to the chatter of the multitude without hearing the single speech that would make a good " line ". And in a good play every line should be a good one. It might be faithful social reporting to present a character whose every fourth sentence is a negative assurance that he/she couldn't care less or couldn't agree more or even hasn't a clue ; but it would be dramatically sterile and tedious. It is often forgotten that when the dramatist holds up the mirror to nature it is a reflection that is seen.

The dramatist is severely handicapped. He has only the spoken word with which to tell his story. The audience must be quickly informed of the identity of the characters, their relation to each other, why they are, where they are and what happened to them and their forbears in years gone by. They must be brought on and taken off the stage for perfectly credible reasons. Often they must be thoroughly well introduced to the audience before they appear. Every speech by every character must help to make clear to the audience, either at once or in the last five minutes of the play, what sort of a character he really is. Any speech by any character must create an impact that provokes another character to reply. The author will already know that the object of speech is to conceal thought but he must also know that such concealment must not extend to the audience and that the speech must be so subtly contrived that the actor may appear to conceal his thoughts from the rest of the cast while letting the audience in on the secret. Of course, the author may, if he wishes, provide the actor with the ready made thoughts to utter as asides but this is not recommended unless one

. . . *taken off the stage for perfectly credible reasons.*

has already acquired the eminence of a Eugene O'Neill and one can be assured of a tolerant acceptance of whatever one likes to do. The author is dependent on the skill of the actor and must assume the existence of that skill. The actor is also dependent on the author and rightly expects written evidence of *his* skill. The speeches must have resonance and rhythm ; they must be acutely significant. The best written lines are the easiest to memorise and the easiest to speak.

Yes, words to be spoken are the only tools available to the dramatist and when he tries to present a stage characterisation of the type of monosyllabic moron who expresses what pass for his emotions by drawling " Oh yeah " or possibly " Aw nerts " or some other equally succinct specimen of current conversation, he has quite a task. When popular habit robs our native speech of the leisurely grace of an Edwardian conversazione and substitutes the lazy gaucherie of a city snack-bar, the dramatists' tools are sadly blunted. The drama of any age reflects the spirit (or lack of it) of that age. Playwrights are human (mostly) and, like other people, they work (they hope) for reward. Of course, if they can afford the luxury of art for art's sake, the reward of the critics' approval will suffice ; when an artistic success is a commercial failure it must. But the cost of food and clothing will usually compel a playwright to cater for the market that exists and it should not be surprising if, in an age of mediocrity, most of the plays produced are mediocre. The few that are not are the product of genius and genius cannot be confined within the limitations of any age. But by and large, an era gets the plays it deserves.

. . . reflects the spirit or lack of it.

But changes of speech, of spirit, of behaviour and habit do not fundamentally change the technique of play writing. In the beginning was the word and the word is still with us, poor and bedraggled though it be. There are signs, faint and distant maybe, but unmistakable, that the theatre will some day repent of the bedraggle-ment of the word and cleanse and clothe it in shining garments once more. When it does the renaissance of the drama will follow. Not because our dramatists will have become better craftsmen but because their materials are of better quality. There will then be the authors who fondly imagine they are writing good plays when they will only be writing bad poetry. The theatre always had and always will have a fascination for every artist. But not every artist knows his theatre.

The writing of plays is not a job for those who do not know the stage. Anybody can—and lots do—string words together but few

have that rare gift of creating speech that has the power and the glory of drama. Words that create character, conceal narrative and provoke conflict of ideas and emotions ; words that are refined to a subtle significance, that move inevitably to every climax, tranquillity alternating with turbulence ; words that sublimate the commonplace and make real the unreal. Only a playwright can write the speeches that make a play. And playwrights *must* write plays—we need them.

P.C.

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WINTER LECTURE PROGRAMME

For the benefit of our readers we give the lecture list for this season of Mr. L. G. Applebee, F.I.E.S., Manager of our London Theatre Lighting Department, and of Mr. P. Corry, Manager of our Manchester Branch. All the lectures are concerned with the art and technique of stage lighting and most of the organisations concerned invite attendance of those who are interested in the subject, whether they are members or not.

Mr. Corry is not able to book any further lectures until after April next and Mr. Applebee has only a few vacant dates in February and March next.

Mr. APPLEBEE.

November 30th.	**Society of Education in Art (Sussex Group).**	Brighton.
December 2nd.	**Medway Theatre Guild.**	
December 19th	**Little Theatre Club.**	Walthamstow.
1949		
January 20th.	**Southall Community Association.**	Southall.

Mr. CORRY.

December 3rd	**The Illuminating Engineering Society.**	Huddersfield.
December 7th.	**The British Kinematograph Society.**	Newcastle-on-Tyne.
1949.		
January 6th	**Staffordshire County Council (Stafford Tech. College).**	Stafford.
January 19th	**Cheadle Hulme Dramatic Society.**	Cheadle Hulme.
February 15th	**Metropolitan-Vickers.**	Manchester.
March 15th	**Little Theatre.**	Romiley.

COLOUR IN THE THEATRE—No. 7

Sunset effects are comparatively easy to produce ; their only drawback is that they tend to lessen the number of lanterns available for the full day effects discussed in the previous article. Rather than risk this it may be preferable to bring in a single flood with a pronounced colour and localise the effect on some part of the cyclorama. Provided the script does not specify that it is the Westerly sky we see, then we can assume our sunset represents a lesser display seen in other regions of the sky.

Where there is a full cyclorama equipment, three colours—Orange 5 A, Blue-green 16 and Blue 20—in the top, and —Red 6, Green 39 and Blue 20—in the groundrow will give wonderful opportunities for clear sky changes. Lighting changes must be smooth, there is too much cue working in the theatre. The sun which vanishes in two or three minutes on cue from the stage manager is scarcely tolerable, even in tropical plays. If a play has a sunset or sunrise, then the man at the switchboard should be quietly at work for the whole scene.

The more elaborate sunsets with the sky broken up by cloud cannot be considered here because they need optical effects on extravagant scale. A flat cyclorama provides no break-up for the light and optical projectors have to be used. Optical methods do not mean just putting a coloured slide in a projector ; painting a sunset is an art but with patience and much ingenuity we can easily follow in Turner's footsteps. However, this must wait until optical effects are discussed in a special article.

Night skies in the theatre usually suffer from too much blue. Partly this is traditional but generally it comes from the fight with spilt light on the backcloth. On a small stage it is well nigh impossible to avoid spilt light but surely the moral is obvious, no equipment which has not an accurately controlled light distribution may be used to light the acting area. For the small stage a batten or footlight is out of the question for any purpose except lighting the backcloth or cyclorama. The main lighting must be from spots immediately behind the proscenium opening and out in the auditorium. If auditorium spots are placed towards the side walls then actors' shadows will be projected towards the wings and very high mounting positions, which cause facial distortion, can be avoided. When flooding is required, then it should come from individual floods which can be fitted with hoods if necessary and be swivelled so that their main beam is directed clear of the cyclorama. Flood lanterns and soft edge spots must never be used from auditorium positions.

A certain amount of blue is bound to be required on the cyclorama, even a jet black sky is improved with just a touch, but our acting area lighting should be so coloured as to avoid stressing the blue by contrast. The old camp fire, for example, must be less flame-coloured than usual ; in fact it could use quite cold colours and yet still look warm when compared to the sky, which in turn will

look less blue. However pale the fire colours, we recognise it as a fire and our colour perception has a starting point which will make us see the sky blue differently. Use vivid warm orange reds for the fire and the sky becomes too blue.

This applies equally to interiors. If we lay on the ambers too thickly to represent the lighting by oil lamps inside the cottage, then the backings to windows and porch will be very blue. Backings are an awful trouble on a small stage, shadows of ye cottage window frames appear thereon, due to insufficient distance between windows and backings. Both for night and day effects it is as well to aim at curtaining the window so that, although perhaps light streams in, the view outside is indistinct. Windows glazed with grey gauze may be preferable to gaping frames.

Some attempt must be made to make the various backings tone in with one another. If there are four external windows then it must be the same weather outside each. Backings to doorways through which actors must pass, are better lit from a baby flood over the door ; too often a flood is placed on a stand and the actor's shadow projected on the backing. This is not too good while he is making his entrance and is frightful if as is sometimes the case, a shadow announces to the side seats that someone is lurking prior to his appearance.

Faced with a large flat as a backing to the front door, how should it be painted and what colour do we use to light it? I am tempted to say I don't know. There is a school which suggests plain backings but there is not much point in a realistic s t which opens on a desert of lunar grey. A cyclorama or plain backcloth with a painted profile groundrow in front is an ideal backing for most purposes, a painted cloth bearing both foreground hedge, tree and sky is never convincing.

Inside the room, I think deep colours are better avoided, the range from 50 onwards plus No. 3 straw are suitable. Try combining these pale colours two to a frame. Surprise Pink No. 36 is too individual for use solo, it is better modified with a second filter. Never use No. 6 Red as firelight or fireglow. As always, colour is secondary to placing and direction—the *form* of lighting.

As a general rule, daylight should be flooding supplemented by spotting ; artificial lighting spotting supplemented by flooding. Keep the top of the set and ceiling dark to represent most artificial light ; for daylight the ceiling must be lit—the footlight is useful for this but a frosted flood on a perch position directed upwards can be used.

It is a pity always to think of lighting in terms of representing something ; it may well be that at times, even in the most realistic box set lighting can bring a stronger message than by sticking strictly to truth. The difficulty comes when naturalism and symbolism conflict. It may be psychologically effective to bathe a character in intense flame light from an acting area flood overhead, but the

message will be spoilt if a token source in the shape of a camp fire is put in at his feet. Nevertheless, psychological lighting can be attempted without conflicting with realism and I think the most effective weapon for this is intensity. The scene can be set low or high in tone or the intensity slowly varied on the dimmers without the audience being consciously aware of the change taking place. Very often such lighting has more true effect than all the impressionist lighting of coloured beams stabbing the gloom of a velvet curtained stage.

This latter form of lighting is so different that it sets up a stunt reaction which will negative any emotional value to be got out of one colour or another. Red light means war, blue—romance, green—youth ; but does it ! The first message of colours like this is more likely to be—what odd lighting or what *clever* lighting !

In the next and concluding article of this series, I shall describe some common uses of coloured light for special effects and illusions.

F.P.B.

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INTERNATIONAL CONFERENCE ON ILLUMINATION

Further to the mention in the last issue of "TABS" of the International Conference on Illumination which was held in Paris in the middle of the summer, the following may be of interest.

Great Britain was the Secretariat Committee responsible for the preparation of the International Report on Stage Lighting, Mr. L. G. Applebee being Chairman.

At the presentation of the Report and discussion thereon, the following countries were represented : Belgium 1, France 8, Great Britain 7, Holland 4, Norway 2, Switzerland 2, U.S.A. 2.

The following resolutions were passed :

(1) **It was recommended that the Secretariat Committee collect information regarding the spectral transmission of filters used for stage lighting in all countries.**

(2) **It was recommended that the dimensions of projector lamps used for stage lighting be standardized internationally, and also that lamps with pre-focus cap and holder be everywhere adopted.**

After discussion with various technicians, scenic artists, theatrical producers and the like, the Committee felt bound to recommend that in their opinion no useful purpose would be served by adoption of a third suggestion. This was :

That fully documented accounts of theatrical mises-en-scene be prepared, in which the lighting of the stage and the appearance of the decor are noted, having proper regard to the methods of specification—photometric and colorimetric—recommended by the C.I.E.

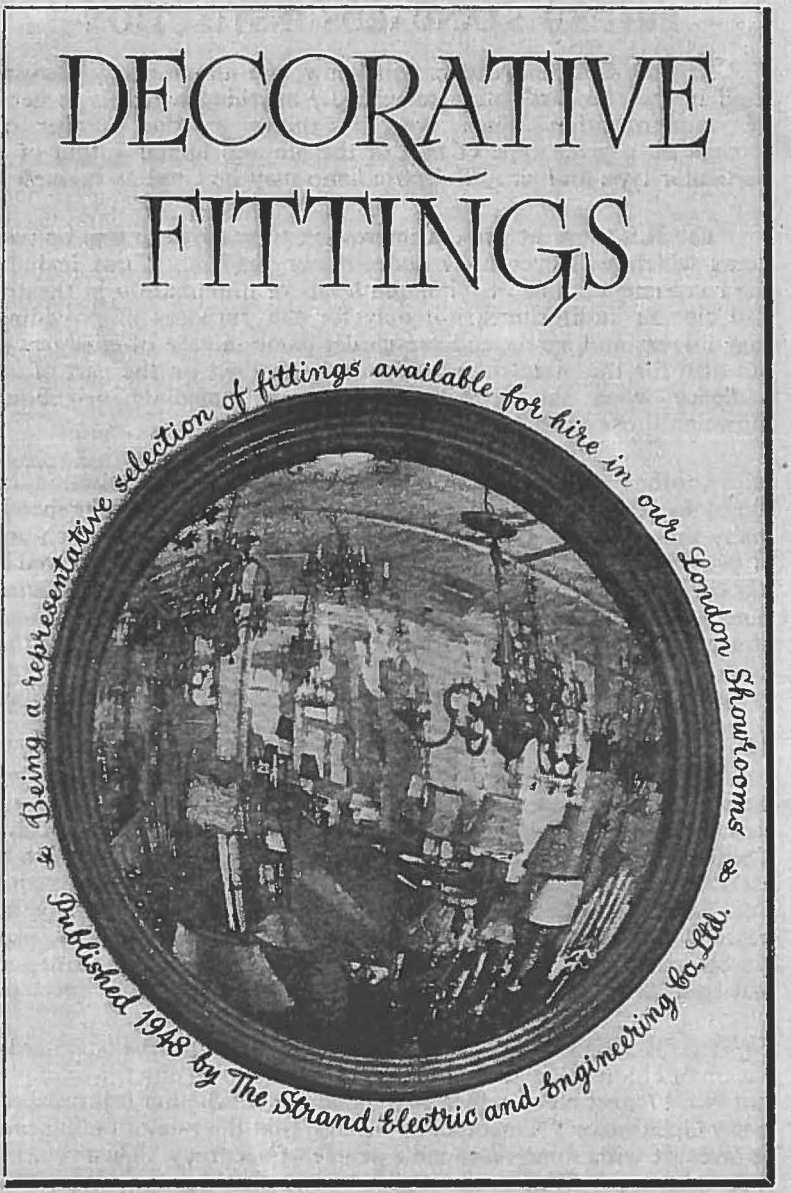
BRITISH STANDARDS INSTITUTION

As many of our readers will know, the above body interests itself in the standardisation of virtually anything which is in need of standardisation. Such everyday things as the number of threads on a given type of bolt or the life and lumen output of a particular type and size of electric lamp may be cited as examples.

The B.S.I. are at present interesting themselves in one or two items which will eventually concern our readers. These include the recommendations of minimum levels of illumination in theatre and cinema auditoriums, not only for the purposes of providing easy ingress and egress and preventing panic in case of emergency, but also for the maintenance of orderly conduct on the part of an audience when the attractions of one's immediate neighbour outweigh those of the star on the screen.

Another item under consideration is the standardisation of plugs, sockets and connectors used on stages. In view of the many, many thousands of such accessories of our own pattern which are at present in use, we would, of course, have been greatly relieved if our own standards had been adopted by the Institution. Deliberations are by no means completed but it would seem that the essential dimensions to be adopted are not those of our design but of the modern domestic counterpart now in general use for power points in homes throughout the country. Once a decision has been reached, it will take at least five or perhaps ten years for the changeover to be considered even partially completed, and the period will inevitably be an extremely trying one for all concerned. However, the trouble is not of our seeking and we shall have to ask all concerned to assist to the full once the changeover starts. Obviously, it will be a physical impossibility to re-equip all theatres and other halls used for dramatic performances (not to mention our own hire stock) at any given date and inevitably therefore there will be at least two types of plug and connector in use simultaneously. To the best of our ability we will of course make it our business to see that equipment sold by, or hired from, us can be suitably connected.

The B.S.I. are also interesting themselves in the standardisation of colour media. Not only is it desired to ensure for example that No. 17 steel blue is always the same shade, whether it is ordered in say Gelatine or " Cinemoid ", but also that the rate of fading can be forecast with some reasonable degree of accuracy. Then too, of course, the specification which B.S.I. will draw up will cover the question of non-inflammability. Provided such standardisation proves to be technically and economically feasible, we are in wholehearted agreement with this proposed specification and we are sure that that goes for our readers too.



Our new catalogue of decorative fittings for hire is mentioned on page 4. Above we reproduce part of the title page and opposite a reprint of the preface.

PREFACE TO THE NEW STRAND DECORATIVE FITTINGS HIRE CATALOGUE

By

John Fernald, Producer for the Playhouse, Liverpool

As a producer whose lot it has been to do over forty productions in three years, and each one of them with some electric fitting which had to be obtained from outside, I cannot say too strongly what a help this booklet is going to be to me. Up till now, one of the nightmares in the producer's life has been that he has seldom been certain what the " fittings " in his set were going to look like. He would arrange, say, for a desk lamp only to find that when it arrived it was either so enormous that the actor sitting behind it disappeared completely (causing considerable " temperaments " at the dress rehearsal), or that it was so tiny that, in relation to the stage lighting it was meant to justify, it was just ridiculous. And how often has it happened that wall brackets supposedly suitable for an early Edwardian play have turned out to be historically correct for late Rattigan.

Of course, this was always the producer's fault. He had only to visit Strand's King Street Showrooms, and he could choose exactly what he wanted. But producers are busy men : when we are " in production " we can only manage to get to King Street before the morning call (far too early) or during the lunch-hour (quite out of the question) or after rehearsal in the evening (downright cruelty). And if we are producing outside London we can't get there at all.

But the " Strand " has now solved the problem for us. In this booklet, for us all to see, are examples of every conceivable type of fitting we are likely to want, and, what is so very helpful, *pictured to scale*. You just place a ruler against the page and you know exactly how big the fitting is going to be. Of course, you may not get *exactly* the same fitting or wall bracket that is in the picture, but if you order No. 25, what you will get will be as near to No. 25 as makes no difference.

Armed as I will be in future with this latest example of the " Strand's " helpfulness to my profession, I shall have no more bad dreams as to what my sets are going to look like, from the lighting point of view. Small wonder then that I look upon this booklet as a boon !

A PROMPT ON CUEING

For my own personal interest I have been meaning for some time to try and obtain a comparison between the number of cues used in a stage show and the number used in a comparable B.B.C. production. Whatever may be one's views about the programmes which the B.B.C. put out and the occasional " technical hitch at the transmitter ", I think it must be admitted that the B.B.C. have achieved an extraordinarily high degree of efficiency on cueing, signalling and timing—a standard which the theatre might often do well to try to emulate.

I started thinking about this the other day when the name of the producer was announced at the end of a B.B.C. feature programme. I should have said that quite a number of studios were used and that several of these were separated by some hundreds of miles, but what really amused me was thinking back to about 20 years ago, when this self-same producer was prompting at an undergraduate dramatic show. One of the actors " dried up " but instead of receiving a prompt, after a long and agonising silence all that was forthcoming from the prompt corner was the rustling of much paper followed by a stage whisper which reached the back row of the theatre. " Go on, damn you, can't you see I've lost the place!"

It does not, however, take 20 years or even 20 weeks to become proficient in the art of giving, taking and logging cues : it is really only a matter of common sense.

Let us assume for example, that you are the stage switchboard operator for the local show. Either you will be taking your own cues from the stage or these will be given to you by the stage manager by warning lamps, buzzer, stage whisper or other recognised means. If taking your own cues you will not only want to know what lighting changes are involved as each cue comes along, but also just when it is due. For this purpose you may have armed yourself with a copy of the script and may propose to mark your cues therein. Now don't, I beseech you, try to write down all your light changes in your copy of the play. There almost certainly won't be room to do it legibly, and in any case the copy may only be on loan from the British Drama League library or somewhere of the kind. I suggest that you simply enter the number of the cue in the book and list the details of the cues separately in a manner which I shall suggest later (and the B.D.L. won't thank me for that either !).

Of course, if you are being given your cues by the stage manager, the latter schedules are all you will require, provided that the S.M. can be relied upon to give you adequate warning. It might not perhaps be out of order just to have a word at this stage about the means of signalling cues between the S.M. and Sparks. The method actually used will, of course, be primarily dependent upon the relative geographical situations of the two persons concerned, not to mention the size of the stage. All the same, whatever the cir-

cumstances, the stage whisper has its obvious limitations but on the other hand it has the outstanding advantage that the S.M. can communicate the actual number of the cue coming up in a way which he cannot do by other means. Of course, if you are never going to miss a cue there is no need for such a safeguard, but on the other hand unless you tick them off as you go along it is only too easy to jump from say, cue 13 to cue 15 unless you happen to be following the script. Except on large stages a buzzer will probably be found to be impracticable. Such an arrangement does not give the S.M. any opportunity of giving the switchboard operator advance warning and it is amazing how the noise can echo round a silent stage, shattering the dramatic effect which the cast have worked so hard to build up. This leaves us the alternative of signal lamps, but as there are several methods available this subject will be left till the next issue. It is quite important enough to merit an article on its own.

So much for means of communication. Now for the method of logging the actual lighting changes themselves. Simple and foolproof though it may seem, it just isn't a bit of good putting down this sort of thing. " Cue 3—Spot on B." In the first place, which spot ? In the second place, who is " B "? Thirdly, does the spot come up slowly on a dimmer or straight on by switch; does it come full on or only up to a half and so on. Now *you* may know all this, but the miserable fellow who is standing-by for you while you pop round the corner to the " Leg of Mutton " for a quick one before they shut, will *not* know. " B " may stand for Binnie but there may also be a Beryl in the cast. The fact that the leading lady allows you to use affectionate contractions of her christian name by no means ensures that other members of the company know her as anything more intimate than Winifred or perhaps even just Miss Hale. Then too, it is quite possible that she will usually be referred to by others by the name of the character she is playing, such as Sunny, Nannette and so on.

No. No matter how simple you may think your " spot on B " may be, I suggest you enter something like this. " Cue 3—No. 4 to ¾ in one minute." That tells you which circuit is involved, what to do with it and how long to take. It does not, I admit, tell you whether a spot, a flood or a chandelier is involved, nor does it tell you whom or what part of the stage it is intended to light on that particular cue. But those two omissions really don't matter a hoot provided that your equipment is correctly plugged up at the beginning of the show or the beginning of the scene. If we disregard some mobile items such as " following " or " perch spots " (which you won't be operating yourself anyhow) the lantern concerned will light the individual or area required (or as nearly so as was achieved at lighting rehearsal !) without your having to make a note of it on your cue sheet.

Reverting for a moment to our proposed cue above (" No. 3 to ¾ in one minute "), what I meant by No. 3 was of course No. 3

circuit or dimmer-way on the stage board. It may well be that if you are fortunate enough to have a spot or flood bar you have already designated your lanterns with different numbers for the purposes of reference. The difficulty about this is that it will seldom be possible to ensure that your No. 4 spotlight, say, can be connected to No. 4 dimmer way on the stage board. Consequently in order to avoid confusion you might prefer to try lettering your lanterns across the stage, reserving numbers for actual dimmer ways on the board, or perhaps vice versa. But the great thing to watch is that there should be no confusion between the number which you may have allotted to any particular lantern and the number of the actual dimmer way on the board which controls it. If you try plotting the number or letter of the actual lantern on your cue sheet, you will have difficulty in locating the correct switch or dimmer handle on the board since they will never run consecutively. This brings us then to the commonsense conclusion that one of the schedules you should make out is one showing which particular lantern or other piece of stage equipment is controlled by each particular switch and dimmer handle.

If you follow out the suggestions I have made so far a part of your cue sheet might well look like this :

Cue.	*Changes.*
12	1 and 3 to $\frac{1}{2}$ in 10 secs. Fade 12 to out in 1 min.
13	1 and 3 to full in $\frac{1}{2}$ min. 7, 9 and 11 to $\frac{3}{4}$ in 1 min. *Stand by* for
14	Blackout all except 8.
15	8 out with tabs. 10 to full. House lights and pilots on.

Such a system of plotting lighting cues might be called " progressive " for want of a better term. Its one weakness is that it does not really lend itself to a check up from time to time to see that each circuit is as it should be. You can of course point out—and I would have to agree with you if I thought you were perfect, which I know I am not—that if you started with the correct opening lighting for each scene and carried out each cue correctly there would be no need for a check at any time. The fact remains that none of us is perfect even on a short run and it is most important to be able to check up occasionally, particularly before and after large or particularly important cues such as " General Dim ", " Blackout " and so on. If you still don't believe me that a check is necessary or desirable during performances, may I remind you how often the producer has said at rehearsal " Now we will go back to so and so's entrance, or to such and such a line ". On the progressive form of plotting which I have shown above, it means working every circuit back through every cue or alternatively starting at the beginning of the scene with your opening lighting and again performing every cue until you reach the correct place in the script.

In the four sample cues I have given above for example, there is no mention at all of circuits 2, 4, 5, 6 and 10. (I am assuming that there are only 12 circuits on the switchboard for the time being.) This means you will have to wade back through every cue looking for some mention of the missing circuits while producer, cast and stage hands start giving you a lot of unwelcome advice and you, in order to hide your embarrassment, whistle a little ditty set to the tune of " Why did I leave my little back room in Bloomsbury " or suchlike. Both the delay and embarrassment are unnecessary.

If you log the " status quo " of each circuit as you go along, you will not only be able to go back (or forward) during rehearsal to suit the whims of the most unreasonable producer, but you will have a ready means of checking that all is well from time to time during any actual performance. Such a method of plotting might be called " additive ". I am not suggesting that you should log the " status quo " after each and every simple change, but on the other hand it should, in my opinion, quite definitely be logged before and after every *major* change and at least once in about every four or five cues no matter how small and simple they may be. Remember you may not always want to check up on your own activities on the switch and dimmer handles. You may well want to see that " old George " hasn't let you down when he stood by for you while you were otherwise engaged. After all you might not like to cause offence by refusing a glass of something in the dressing room when it is offered. Anyway such an additive plot as I suggest might well look something like this. Compare it with the earlier table to see how it is arrived at.

Cue.	*Circuits.*											
	1	2	3	4	5	6	7	8	9	10	11	12
11	out	¾	out	full	full	full	½	¾	½	¾	¼	full
12	½	¾	½	full	full	full	½	¾	½	¾	¼	out
13	full	¾	full	full	full	full	¾	¾	¾	¾	¼	out
14	out	out	out	out	out	out	out	¾	out	out	out	out
15	House and pilots on							out		full		

In order to make this example as clear as possible I have made out the plot for every cue. Admittedly there is not much change in the lighting situation between cues 11 and 12 and you might feel, therefore, that to re-plot the position of every circuit to cue 12 was unnecessary. On the other hand there are no less than eight changes involved in cues 12 and 13 together, and seeing that you have virtually a total blackout coming next, it is most important to log up the situation after cue 13 so that you can be a 100 per cent. sure you are all set for the blackout when it comes.

Let me make it clear that I am not suggesting that the additive plot is an alternative to the progressive. The latter is the one to work to, for its brevity. But you should definitely keep both,

and preferably facing one another on the left and right-hand pages of a notebook. One further suggestion, and it is one which I hope you will not be too proud to act upon. It is to include house lights, pilots and stage working lights in all your plots. Only too often has one seen the house lights left on when the curtain rises. Very often of course, stage working lights and even batten pilots may be left on right through a scene without being noticed, but when a general fade out or blackout comes, great is the embarrassment in the switchboard corner, so be wise, make sure, and plot these items every time.

One other thing—remember to fade (and plot) your front-of-house spots to " out " as the curtain falls, and bring up some light in the floats to cheer things up a bit. Circuits 8 and 10 show what I mean, being F.O.H. and float respectively.

Likewise remember to reset (and dare I say it again—plot) your float circuits *before* the curtain rises. They were probably full up for the interval, but is that how you want them for the opening of Act 3 ? But then of course nothing I have written matters a hoot if you haven't plotted (and executed) the whole of your opening lighting right. And you won't *do* it right unless you've . . . well you can guess !

C.

BACKSTAGE IN THE WEST END

We are often asked by our readers to tell them rather more about what the professional theatre is doing. Well, here you are.

The illustrations are from " Lute Song " (Winter Garden Theatre, London) brought here from the U.S.A. by Albert de Courville. The show is already off, so you can't go to see it. But this was not just " another show " as far as lighting went. It was exceptional. Apart from two 6 ft. lengths of batten and ground row, it was entirely lit by 107 (one hundred and seven !) spot or focus lanterns. There were forty Pattern 73 Mirror Spots, (eighteen of these being in the front-of-house), fifty-nine Pattern 43 ordinary spots, and eight Pattern 50 Pageant Lanterns. Fig. 1 shows the special

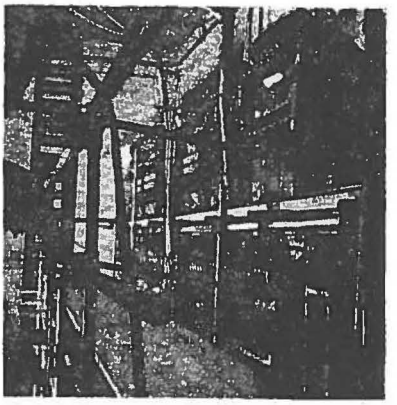


Fig. 1

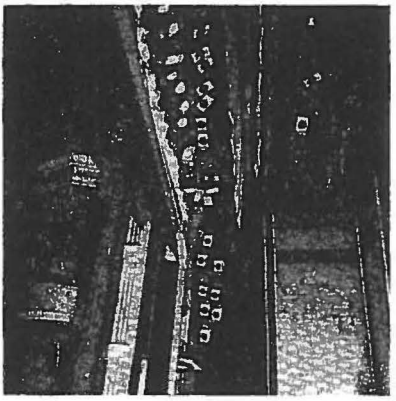


Fig. 2

gantry erected in tubular steel scaffolding to carry some of the ninety-six dimmer ways, all extra, incidentally, to the permanent theatre board.

Fig. 2 shows a section of the No. 1 spot bar and No. 1 Boomerang, while Fig. 3 gives a rather more comprehensive view of the spot bar—in this case a two-row job. As far as England is concerned, this show was of course, exceptional. The absence of floods and compartmented equipment (e.g. floats, battens), obviously necessitated an increased number of spots and focus lanterns, if only to produce the required intensity of light for visibility let alone dramatic effect. An interesting sidelight this, perhaps, on the differences between English and American technique. Incidentally these rather difficult photographs were taken (with existing lighting only) by W. Lorraine of our Hire Department.

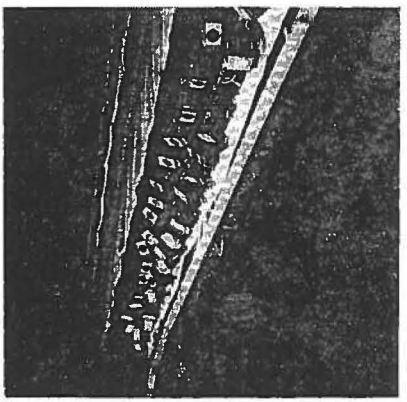


Fig. 3

* * *

CORRESPONDENCE

TO THE EDITOR.

Dear Sir,

Mr. Corry's reference to the Electric Discharge Lamps shows a sad lack of appreciation of their value. In many places—those in which the mercury and sodium lamps have found favour—the amount of light that can be provided economically is all too small for safety and well being, so the gain which results from an increase of three or four times the amount is not something to be lightly discarded. It is true that colours are thereby distorted, but at these low levels the colours are not obvious, and if our friends do

appear as " haggard ghouls " and " Truth is a mangled casualty ", surely that is many times better than that our friends should—as the result of accident—become in reality the haggard ghouls or themselves the mangled casualty ? Is it not better that a 'bus be seen in all its distorted hue, so that one may leap to safety, than that it be " not seen at all " with fatal results ? The corpse would probably prefer " an increase in (his) neurasthenia by optical defects requiring treatment " or even " domestic irritation and strife ", to his cold and solitary confinement half a century before his natural time.

One appreciates Mr. Corry's gracious (relative) approval of the fluorescent tubes, which are " a considerable improvement on the sodium and mercury lighting ". Whether their light is more or less " pleasing than that from most tungsten filament lamps " is a matter of opinion, but Mr. Corry is probably unaware that when the electric filament lamp was first introduced on a large scale, some 40 to 50 years ago, there was a considerable outcry against the harsh and *displeasing* qualities of this source compared with the older gaslights, oil flames and candles. If he finds it so pleasing and natural now, may he not in 50 years' time (if he hasn't fallen a victim to the voracious 'bus) be repudiating the latest source of light on account of its unpleasant quality compared with that of the pleasing fluorescent tube ? Surely all judgment is comparative and the unfamiliar less acceptable until it has become the old familiar friend ?

The claim that fluorescent lighting is " shadowless " is poetic licence, which not the scientist, but his commercial friend employs. Such lighting has a noticeable absence of strong hard shadow, but so has daylight, even " in the early evening of high summer, lit by the setting sun ", for the sky provides a very appreciable proportion of the daylight at such a time. On the other hand, he who imagines that fluorescent lighting will give him *no* shadows, deceives himself ; it differs little—less than the eye will detect apart from the colour difference—from " that from softly shaded and well dispersed tungsten lighting ".

I would agree most heartily with Mr. Corry that man's " emotions and appetites are inseparable from his humanity, and are interdependent ", and that his emotions must have careful consideration. No lighting engineer worth his salt would claim otherwise, for the proof of the quality of a lighting installation is in its suitability for its purpose. Therefore let us have mercury and sodium discharge lamps on the roads, to save life and limb, and (good) fluorescent lighting indoors to emulate daylight; if any of these sources appear in the world of art and the theatre, then the responsibility rests with Mr. Corry and his confrères who " haven't sense enough to use them with restraint ". So let us not blame the

expert for other people's misuse of his products, not the scientist if his " influence on our lives " is such that " our civilization will disintegrate and decay " as a result of our own folly.

I remain, sir,

Your humble " well-meaning expert " and " misguided scientist ", who claims only to be a competent lighting engineer.

S. S. BEGGS,
Magister in Artibus.

WEMBLEY.

* * *

Mr. Corrie replies—

I was most careful not to blame the scientists for the misuse of their discoveries but when they applaud or excuse that misuse I regard them as vulnerable. Nor do I blame the scientist because " we "—the non-scientists—are foolish enough to treat them with so much awe.

It is clear from his final paragraph that Mr. Beggs has missed or evaded the main point which is that people are subject to emotional reaction to colour whether in the street, the home, the office, the workshop or the theatre. It is wrong to say that colour is not important in street lighting. Quality is always as important as quantity if human standards are not to deteriorate. The purpose of street lighting is not solely to make it more difficult for those of us who are motorists to kill those of us who are pedestrians. A light source that increases intensity—for one purpose—but debases colour values, is a failure. The failure cannot be excused by presenting a grim choice of two evils—by using the old advertising dodge of frightening people into acquiescence. Mercury and sodium lamps are not *essential* to the effort to keep death off the roads ; there are alternatives which are less objectionable.

I'm afraid it is only too possible that I shall live ('buses permitting) long enough to prefer an improved fluorescent tube to some other premature scientific release. I prefer to *hope* that in less than fifty years (since I might never be a centenarian) I shall be able to applaud some new light source as an improvement in quality as well as quantity. It is poor service to humanity to help to destroy or diminish a cultural appreciation of colour. People who are conditioned to squalor quickly become squalid. The cultural standards of civilisation are not so high that they can afford to be lowered.

Incidentally, discharge lighting *has* been used on the stage . . . purposely to make the actors appear aged and haggard.

P.C.

A USEFUL NEW CHART FOR OPERATIC SOCIETIES

Messrs. Chas. H. Fox, the well-known firm of theatrical costumiers, have been very enterprising in publishing a chart which has been compiled to show " At A Glance " most of the details required by operatic societies when budgetting for their operatic productions. The information given is clear, concise and very comprehensive.

The chart is of 10 in. diameter and by revolving the outer disc to any of the 77 operas contained therein, all the information appears " at a glance ", and consists of the following :

Royalty Owners.

Cost of hire of band parts.

Deposit on band parts.

Numbers of costumes required.

Numbers of ladies' modern dresses required.

Number of scenes.

A short description of the opera together with names of the composer(s).

In addition, the names and telephone numbers of all the publishers.

Messrs. Fox have always adopted up-to-date methods and we think that this is one of the most ingenious publications we have seen, especially when one realises the amount of work which secretaries will be saved at their committee meetings should they be asked by any member of the Committee for immediate information.

We understand that Messrs. Fox have sent a free copy to all secretaries of operatic societies affiliated to the National Operatic & Dramatic Association, but they have advised us that if there are any other societies dealing entirely with operas who are not affiliated to N.O.D.A., they would be pleased to send them a copy on application, though naturally, it may not be possible to meet all the demands owing to paper restrictions. But apply to Messrs. Fox—not to us.

* * *

We have received a little booklet on " *Straight Make-up Explained Simply* ", which unfortunately space will not permit us to review. The information if of a somewhat general nature, appears to be practical and readers may wish to apply for a copy to Messrs. Theatre, Stage & Actor Services Ltd., 25/29 Roundwood Road, Willesden, N.W.10.

STAGE SWITCHBOARD DESIGN

Reading the interview with Mr. Devine, on the subject of the Ideal Switchboard, in the last issue of " TABS ", I found myself wondering if we should expect to make a control to fulfil every requirement. I can suggest a technical solution to the problem. The dimmer bank is placed under the stage and consists of the most modern form of dimmers and these are controlled from two units—one a compact console desk, small enough to enable the operator to be seated in full view of the lighting he is controlling ; the second is a larger switchboard type of panel which a pre-set system requires. In this way we enjoy the best of both worlds, the freedom of the console desk and the meticulous repetition which the pre-set system ensures. But who could face the outlay ? A light console or a four-scene pre-set are each more expensive than any orthodox direct operated board, and this is the factor that has hindered their development even as separate controls, let alone combined.

One can state positively that today we can design a control to fulfil all requirements though financially it would be prohibitive, but the trouble today is that even if some theatre owner was to come to a producer with his purse " at the ready ", the latter's resources only too often are a knowledge of what he does *not* want.

Therefore, let us trace the development of stage-boards so far and see what there is to be learnt.

First, note that I use the term stage-board instead of stage switchboard. This is because although switching is important, the basic unit which makes the problem in designing a stage control unlike any other, is the dimmer. Whereas to turn the gaslight up and down needs a single tap, electric light requires a lot of bulky apparatus.

Until quite recently we had to pass the electric current through a variable resistance. In the early days it was a simple affair consisting of a drainpipe filled with a solution of washing soda. This was unfortunate, as although cumbersome, the liquid resistance was cheap and set a price standard which still hangs over us. Every improvement must take us away from those simple days and up goes the price.

Apart from other considerations the advent of high voltage alternating current has sealed the fate of the liquid dimmer. Today the commonest dimmer employs coils of resistance wire to which contact may be made direct by a slider or indirectly by stud contacts to 100 tappings. An alternative dimmer, known as an auto-transformer has also been available for some years now.

The actual form of dimmer is of secondary importance and beyond remarking that the resistance is the cheaper but will only allow limited load variation, whereas the transformer allows unlimited variation but at greatly increased cost, we pass on to the all important assembly as a stage-board.

On a small stage where the amount of lighting equipment is limited, the design of the board is easy—just a metal frame on which several slider dimmers can be mounted. When there are 20 lighting circuits or less we can get by, if need be, with less than a dimmer to each circuit, provided the switching arrangements allow us to share out the limited stock. Naturally when we have few lanterns some of them are likely to be switched on direct to make the most of what light is available. The dimmers are plugged into circuits which require dimming for a particular balance or effect of lighting.

The photograph (Fig. 1) shows a board of this type for 10 lighting circuits to share four dimmers and a master dimmer. The latter is desirable because it allows a general fade to include those circuits which are switched full on without individual dimmers.

When the number of circuits is above 20, it becomes less and less possible to share dimmers. It's not fair to the switchboard operator to expect him to keep track of 100 circuits, any one of which may be on one of 50 dimmers. When told by the producer at rehearsal to dim No. 1 spot he must be able to instantly take hold of the right lever for this purpose.

For larger boards the simple slider of Fig. 1 is replaced by a stud contact dimmer which is mounted on a framework behind a metal panel. The dimmers are operated by rods passing through slots in the panel to connect with a series of levers pivoted on a shaft (Fig. 2). The object of this arrangement is to allow dimmer handles to be screwed to the shaft for collective operation by the capstan wheels on the left of the picture. There are three shafts and these can in turn be coupled together by a chain interlock. Above the dimmers is a panel carrying the circuit switches, each of which has three positions—centre "off", down "on blackout switch", up "held independent of blackout". The master switch is over the capstan wheels and using it in conjunction with the circuit switches any or all lighting can be blacked out simultaneously.

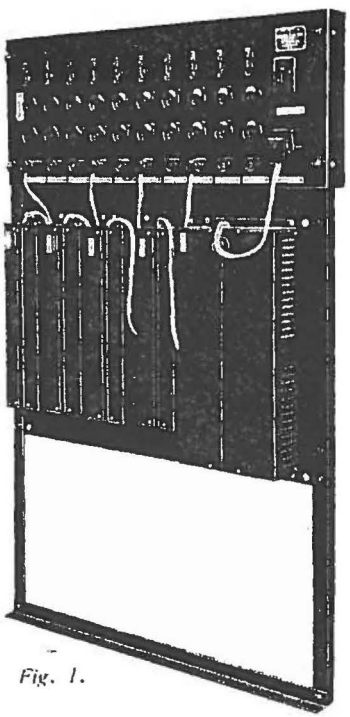


Fig. 1.

It may be wondered why the practice of connecting the circuit switches through a large master switch is not repeated for the

dimmers, i.e. cannot circuit dimmers be fed through a large master dimmer instead of relying on mechanical interlocking ? The reason is to be found in the expense of supplying a dimmer to provide a large variation for large loads—one moment to dim 6,000 watts, the next 20,000 watts. When, as in Fig. 1, the load is small, a master dimmer is the logical device. As it is operated so the supply is reduced proportionately to all lamps, whether switched full on or supplied through individual dimmers. On the other hand the mechanical master puts out first the circuits at least intensity, thereby unbalancing the stage picture. However, the mechanical interlock is all we can usually afford and better this than half a board on a more expensive system. Provided the individual dimmer handles are fitted with self-release trips to allow those first home to slip and not to act as brakes, too much can be made of the failure to dim proportionately. It is a matter of seeing the lighting plot in terms of the board, and not asking of it what may take several men hours of practice to do. If our car cannot exceed 40 m.p.h. and we cannot afford a better, then we must plan our travels in terms of 40 m.p.h. or under.

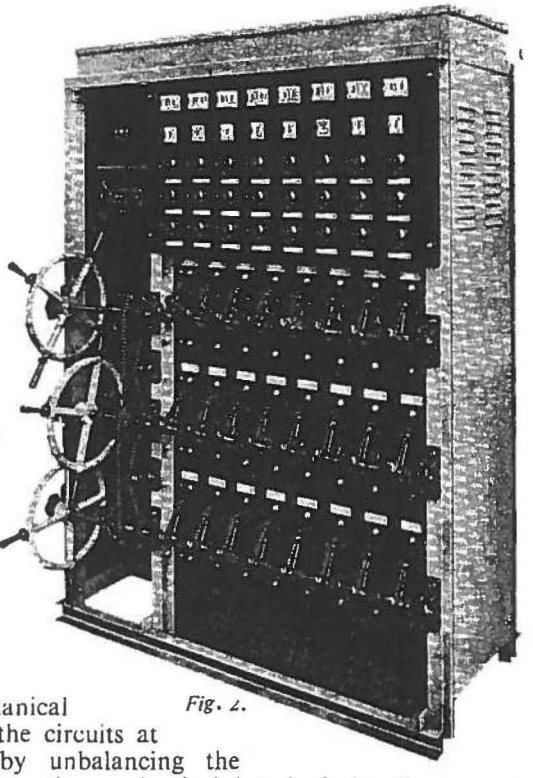


Fig. 2.

There comes a time when the very size of the theatre stage carries with it a large installation if for no other reason than to provide adequate intensity ; then we find the number of dimmers has become so great that direct operation from levers mounted alongside them becomes suspect. A collection of 100 dimmers and switches made up in this form is a large affair, 13 ft. 6 in. wide by 7 ft. 10 in. high.

For some cues, obviously it will require two operators, perhaps more for complicated cues, and they will not be able to see the stage properly from the kind of position likely to be available for such a piece of machinery. Thus we can safely say that, ideally, any board

of more than about 80 dimmers should not be of the direct operated pattern. An example of an 80-way board, installed in the Haymarket Theatre, is shown in Fig. 3. This represents the latest practice for this type of control. Where more money can be spent on the board then we prefer to turn to another system—remote control—rather than provide further refinements to the direct-operated type—refinements which in any case can weigh but little against the handicap of board size. Remote control is to be discussed in the next issue of "TABS" so I will conclude with an examination of what legitimately may be expected if finance compels us to resort to Fig. 3. This board is arranged in four-shaft tiers which are permanently geared to a master wheel in the centre. Each dimmer has a self-release handle and a scale. In line with it on the switch panel above is a two-way and off circuit switch. The large master blackout switches are placed out of earshot of the stage and operated by electro-magnets energised by small tumbler switches above the master wheel.

In a theatre presenting spectacle instead of straight drama, the four shafts to the left of the master wheel would be allocated each to a separate colour and there you would find all the levers for magazine equipment such as floats and battens. On the right would be two groups (paired shafts) for spotlights, acting area floods, etc. Each shaft could be connected to take its dimmers up or down or remain static by setting the shaft clutch lever ; the master wheel turning the same direction all the while. The board is then known as a Grand Master Cross Control; the cross control being mechanical or electro-magnetic, depending on the number of dimmers. In either type of Grand Master as installed in this country, groups of dimmers cannot travel up and down simultaneously on the same shaft nor can they be unlocked at any intermediate position other than by hand.

Quite numerous broad effects involving group movement of lighting can be easily carried out by the operators, but they will have to rely on the producer to tell them what to do at every step, since he alone can see what the audience will see. The 90-way board of this type at the Opera House, Blackpool, installed in 1938, has fulfilled their needs ever since.

The board will, however, constitute a barrier the moment we try to cut down rehearsal time for the men at the board are working blind, or again if our lighting changes come too fast or are too complicated. It is quite a problem to carry out 20-group changes in two minutes or anything like it ; there is not time to go along the board unlocking and re-locking. To move 20 dimmers quickly from one set of intermediate positions to another would require time, because a large number of operators only get in each other's way. It is better to accept the limitations and devise a plot of well-defined changes to be brought in on signal from the stage manager, than to demand toil and acrobatics to produce an effect which is bound to slip as soon as the producer's back is turned.

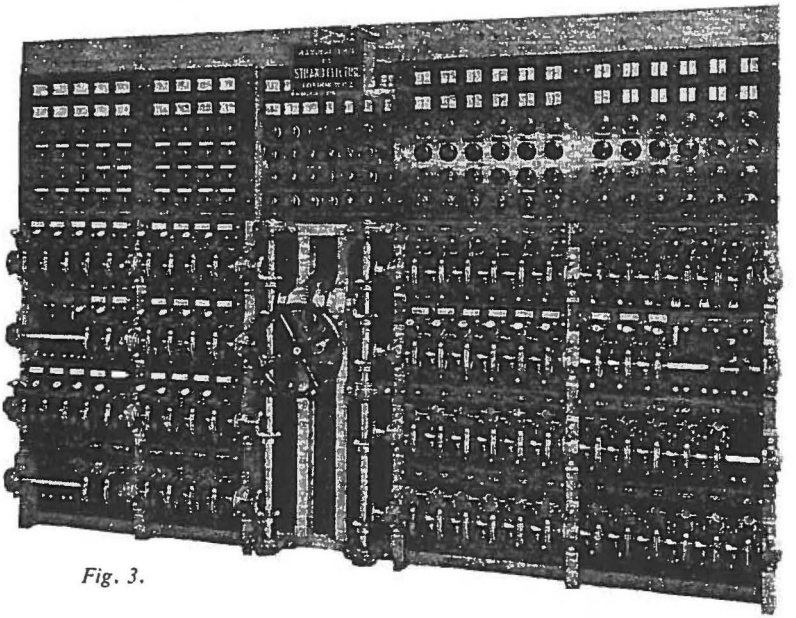


Fig. 3.

In the next issue I shall examine remote control systems for those who are prepared to face the extra expenditure needed to allow the lighting to be airborne instead of earthbound. There is a final point which must be made in respect of all stage-boards whatever their type. An adequate number of dimmer ways must be allowed, not only for the lighting as now proposed, but also for the future. However lavish the equipment and plug layout seems now, it is certain to require extension one day and unless extra space for dimmers is allowed on the board we may have to purchase a second one in the future. Productions in the West End, involving two permanent boards and several portables, all with their own operators, are not infrequent. The lighting equipment can be a minimum, the rest to be hired or purchased later—indeed such an arrangement may better suit a diversity of productions, but a hired board is of necessity a portable makeshift reduced to bare essentials and cannot serve the show as well as a permanent board well positioned.

F.P.B.

* * *

SNUFFED OUT ?

Extract of letter received from an Educational Settlement.

" Act One I propose to place in front of the stage, with very dim lighting, and the characters will just be extinguishable and no more."

COLOUR FILTERS

The situation regarding Cinemoid colour filters has improved considerably of late. The colours shown below are all available in Gelatine and also in Cinemoid, provided there is no annotation against the number concerned. The abbreviation indicates :

NC—Not available in Cinemoid.

Colour No.	*Description of Colour*	*Colour No.*	*Description of Colour*
NC 1	Yellow	22	Moss Green
2	Light Amber	23	Light Green
3	Straw	24	Dark Green
4	Medium Amber	25	Purple
5	Orange	26	Mauve
5A	Deep Orange	29	Heavy Frost
6	Fire Red	30	Clear
7	Light Rose	31	Light Frost
NC 8	Salmon	32	Medium Blue
9	Middle Salmon	33	Deep Amber
10	Middle Rose	36	Pale Lavender (Surprise Pink)
11	Dark Pink		
12	Deep Rose	39	Primary Green
13	Magenta	40	Light Blue
14	Ruby	50	Pale Yellow
NC15	Peacock Blue	51	Gold Tint
16	Moonlight Blue	52	Pale Gold
17	Steel Blue	53	Pale Salmon
18	Middle Blue	54	Pale Rose
19	Dark Blue	NC55	Chocolate Tint
20	Deep Blue	NC56	Pale Chocolate
NC21	Pea Green	NC60	Pale Grey

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