

# TABS

Published in the interests of the Amateur Theatre  
by

The Strand Electric and Engineering Co., Ltd.

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## EDITORIAL

We have to announce the retirement of that stalwart of the Strand Electric, Mr. L. G. Applebee. It will surprise many who have seen Mr. Applebee in action to realise that he is indeed of retiring age. His marathon lectures are but one facet of the untiring energy that he has devoted to the theatre and in particular that aspect of the theatre which the Strand Electric exists to serve. To chronicle his achievements would be impossible, and it is in any case as a personality that Mr. Applebee will be remembered. Nothing short of a full-length profile can do justice to this subject.

### A New Theatre

Mr. Corry writes :

"It is significant that on the day when the dismantling of the St. James's Theatre began, on October 21st, a new theatre was opened at Middlesborough by Sir John Gielgud. The significance lies in the fact that this new theatre has been planned, built and equipped (at a cost of £50,000), because of the faith, enthusiasm and contributions of a company of amateurs who began to create their own theatre on Tees-side twenty-seven years ago. A community that was deprived of the best that could be offered by the professional theatre has now created a home in which it is possible not only to present its own productions, but also to act as host to professional companies that are, or will be able to offer the kind of cultural entertainment that a discriminating minority of the population requires."

In view of the great interest this theatre will arouse we have asked Mr. Corry to tell us all about it in our next issue.

### A Case for an Adaptable Theatre

Just as it was not unexpected that Dr. Richard Southern's article in our Vol. 15, No. 1, should have provoked Mr. Stephen Joseph to take up the pen, so also Mr. Joseph has, of course, provoked Mr. Emmet. It is scarcely necessary to say who Mr. Emmet is since he has shown the world not only how to set about building a novel theatre, but how to collect an unparalleled Press for it. As Hon. Director of the Questors Theatre, Ealing, his views, which arise from Mr. Joseph's remarks in our last number anent that theatre, should be, to say the least, stimulating.

### Adieu to Snuffing Candles

Mr. Melling and Miss Nolloth, although their professional qualifications are far from the theatre, have done much research on the history of the old Theatre Royal, Southend. Apart from their work in the amateur theatre, Miss Nolloth as an actress and Mr. Melling as a producer, they co-operate in writing and publicising all aspects of theatre work, including puppetry.

### Book Review

Mr. Christopher Ede has had a varied experience in Pageants, Films, Opera and Revue and spent two years as Artistic Director to Sir Donald Wolfitt. He was also responsible for the production of the Pageant of Rhodesia at the Rhodes Centenary in Bulawayo, where a theatre seating 3,000 was built under his direction. He put on a pageant at Hampton Court and three productions of the Chester Miracle Plays and more recently the Guildford pageant.

In 1955 he published *Drama Festivals and Adjudications* and has lectured extensively.

### Anon

Readers of TABS will have noticed that authors on the staff of Strand Electric have now shed what was, in some cases at any rate, the very thin veil of anonymity conferred by the use of initials. Signed articles represent the opinions of the author and not necessarily of the firm who in fact employ him.

### Dublin

The Branch have been on the move again. Their new Factory Type premises—incorporating Demonstration Theatre—in addition to being more central are infinitely better suited to Show business. The new address is : 30 Upper Abbey Street, Dublin. Telephone : 47078.

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## NEW LECTURES

In addition to repeat performances of lectures already given in the autumn, there are three new items. The first is Frederick Bentham's annual technical lecture on Stage Lighting Control. This is given each year as a supplement, to cover details of controls used and necessary to the lighting in the rest of the lectures in our series. It is recognised that switchboard control is not of general interest to everyone, but as it is the control of lighting which makes it expressive it is a subject that should not be ignored. Consequently, each year a lecture is devoted to this subject in detail, and it need only be touched on in the most general way in the remainder of the lectures. This year both remote control and direct-operated control are compressed into one evening, and in consequence concentration is on the home-produced British articles rather than the world-wide survey of last year's two-evening sessions.

### Scenery and Costumes

It is our object in the Demonstration Theatre to provide information and instruction—a kind of extra-mural course—on subjects

both directly and indirectly connected with stage lighting. There is in this country no training course equivalent to those in some of the American universities and we conceive it our pleasant duty to step into the breach in much the same way that TABS fills its own little niche in literature. To this end we have asked Mr. Corry to give a lecture on planning the structural side of the stage to cover all those essential features of ironmongery, rigging, and so forth, which form such an essential part of any stage, however little the amount of scenery used thereon. This is a subject on which Mr. Corry speaks with great authority, for not only is he a producer who knows his own lighting, but of course he is concerned as Watts and Corry, of Manchester, in the supply of scenery and all the ancillary devices that it entails. Mr. Corry, despite his many interests, would be the first to admit that his approach here is that of the producer and of the technician and not that of the artist or visual designer. So that this latter aspect can also be covered we have secured the services of Miss Norah Lambourne to come and lecture us.

Miss Lambourne is a designer of scenery and costume, and is well known as a lecturer and as an authoress. Her latest book, *Staging the Play*, which was reviewed in TABS (September 1956), deals comprehensively with the problems of scenic design and construction, with a full understanding of the special problems of the amateurs. She was engaged as the designer for each production of the York Mystery Plays and she fully appreciates the need for harmony in décor and lighting. We are delighted to have Miss Lambourne as a contributor to our course of lectures.

### Colour Music

The recital to be staged on Friday, March 28th, marks the return of Colour Music as a programme for the first time since 1939. It is well known that this is a subject very dear to Mr. Bentham's heart, and that in fact he has had no real opportunity to practice it extensively since then. Of course, odd items have been performed on an ordinary switchboard, but for this particular field the Light Console—the switchboard invented for Colour Music—is the only true instrument. The original Strand Light Console of 1935 will be connected to the dimmer bank in our Demonstration Theatre so that some of the original items can be played as far as possible in the way they used to be. Colour Music is particularly in the news at the moment, since it is such a close relation of "Son et Lumière." Whereas "Son et Lumière" is new, Colour Music certainly is not and Mr. Bentham intends to dwell partly on the history of the subject, but even more he intends that it shall speak for itself.

## SPRING PROGRAMME

- "Basic Stage Lighting." 1957/58 Edition. Demonstration and Talk. By Frederick Bentham. } Thursday, January 30th.
- "Lighting the Scene." Mock Rehearsal and Commentary. By William Lorraine and Frederick Bentham. } Wednesday, February 5th.
- "Advanced Technical Lecture." By Frederick Bentham. } Thursday, February 27th.
- "Costume and Scenery for Amateurs." By Norah Lambourne. } Wednesday, March 5th.
- "Colour and Directional Light as Applied to the Stage." Lantern Lecture. By L. G. Applebee. } Wednesday, March 19th.
- "Colour Music." Recital and Talk. By Frederick Bentham. } Friday, March 28th.
- "Planning the Stage." By P. Corry. } Wednesday, April 9th.
- "Basic Stage Lighting." 1957/58 Edition. Demonstration and Talk. By Frederick Bentham. } Wednesday, April 23rd.
- "Lighting the Scene." Mock Rehearsal and Commentary. By William Lorraine and Frederick Bentham. } Thursday, May 8th.

The above will be at 6.30 p.m. on each day. Entrance to the Theatre is at 29 King Street, W.C.2, from 6.15 p.m.

Those wishing to attend should apply in writing as early as possible to Head Office, 29 King Street, W.C.2, marking the letter "Demonstration." Personal applications can also be made at the Hire Showroom, at the same address, and Sales Counter in 25 Floral Street, W.C.2, but should be confirmed in writing.

### Recorded Lecture

This lecture, described in the last issue of TABS, has proved so popular that extra copies have been made. Those interested should write to Publicity Dept. for further details.

## PROFILE OF A PIONEER

by P. Corry

About the time of publication of this issue of TABS, Mr. L. G. Applebee will be retiring from The Strand Electric Company after thirty-five years of service, during which time he has become known to theatre people all over the British Isles and in many other parts of the world. He joined the company in 1922 and became one of its directors in 1945.

Although he had an orthodox training as an electrical engineer at the Finsbury Technical College and, after a period of apprenticeship, became a draughtsman for the Metropolitan Tramways, it was perhaps inevitable that the theatre would ultimately claim him. His grandfather was the Master Gasman at Drury Lane. His father was Master Gasman and later Electrical Engineer for George Edwardes at the Gaiety and other theatres. His mother was in ballet at Drury Lane and Covent Garden during the reign of that king of pantomime, Sir Augustus Harris. When, in later years, he took unto himself a wife, he ensured a continuity of theatrical tradition in the family; his wife was an excellent amateur character actress.

In 1912, young Applebee joined the staff of George Edwardes at the Gaiety, and occasionally toured as electrician with the Edwardes company. His closest friends may suspect that this early contact with Gaiety Girls and musical comedians could be the cause of his consistently irrepressible frivolity! As a member of the Territorial Army (and a former Volunteer) he was transferred in 1914 from the theatre of gaiety to the theatre of war, and served with the Royal Engineers on searchlights.

In 1919 he returned to the theatre, having acquired an increased expert knowledge of directional lighting and the traditional vocal prowess of a sergeant-major on parade. He did not return to the Gaiety; he joined the staff of the great C. B. Cochran. It is interesting to note, in parenthesis, that the Gaiety Girls were ultimately succeeded by Cochran's Young Ladies!

In 1922, Applebee joined a small band of engineers headed by Philip Sheridan, Arthur Earnshaw and Moss Mansell, who realised that the new technique of theatre lighting was beginning to create needs that had to be satisfied. The Strand Electric staff (a total of about sixteen) operated in a small workshop on the third floor of a building in Garrick Yard. Applebee designed the first compartment type footlight and battens and much of the stage lighting apparatus that followed in the next few years. For the New Cross Empire he designed the first Strand Electric switchboard. In 1930 he became manager of the Theatre Lighting Department of a considerably expanded Strand Electric. The name of Applebee became known in every part of the British Isles and his voice rolled round the flies



of hundreds of theatres and cinemas from Land's End to John O'Groats. He became an acknowledged expert on modern stage lighting, the development of which he influenced considerably. Architects, consulting engineers and theatre managements sought and heeded his advice. He worked very closely with the late Harold Ridge, who wrote what was for many years the standard book on Stage Lighting in England. The architect who designed the Shakespeare Memorial Theatre, Stratford-on-Avon, sought and obtained his advisory services. He was responsible with Moss Mansell for the installation in the Covent Garden Opera House of a system of stage lighting control from which the varied methods of remote control have since evolved.

In the First World War he had fought the Germans with searchlights ; in the Second, he fought them with spotlights and footlights. He evaded enemy submarines and arrived in Portugal in January 1940, where he succeeded, against keen German competition, in selling the complete stage lighting apparatus, including a Light Console, for the San Carlos Opera House, Lisbon. A recital of all the important stage-lighting schemes for which Applebee has been responsible would be more appropriate to a catalogue ; this profile is but a snapshot. Further, the term stage lighting must be taken in its widest sense, stretched to cover the lighting control boards for the first public high definition television service in the world—that of the B.B.C. at Alexandra Palace in 1936.

As a lecturer on stage lighting, Applebee has interested audiences in all parts of the British Isles and elsewhere. Perhaps the most notable of his lectures were those given to the Royal Society of Arts in London, and to the Faculty of Drama at Yale University. He has lectured at most of the centres of the Illuminating Engineering Society, which he joined in 1925, and of which he became a Fellow in 1941. For seven years he was Chairman of the Stage Lighting Committee of the Commission Internationale de l'Éclairage.

In spite of what an American might describe as his "dedication" to the stage, Applebee has always been a man of varied interests in sport. As a member of the Ranelagh Harriers he was a cross-country runner of National Championship class. He rowed and sculled for Vesta Rowing Club, which fact may or may not explain why he was also a keen swimmer! He is a past president of the Surrey County Swimming and Water Polo Association. It would be untrue to say that his keen appreciation of the shapeliness of the female form is a compelling reason for his being a very active president of the Kingston Ladies Swimming Club. Under his enthusiastic leadership the club produces many swimmers in the championship class, and one expects that his retirement from business will merely release greater energies for his activities in this direction. His daughter is in true line of succession. She is an outstandingly successful hockey player, playing as "Jo Braithwaite" for her team, county and country.

There are many other Applebee activities that have no mention here. If important ones are omitted, apologies are offered. But those who know him best are concerned less with what he has done than what he is. In *The Apple Cart* Bernard Shaw made Lysistrata assert that men nowadays are as alike as hotel dinners. Applebee belongs to a generation that scorned uniformity. He is a "character." Those of us who have known and worked with him for many years are best able to assess him as a man, to admire his attributes of strength, and to love him for his demonstrations of human weakness. He has always had a forthright and vigorous singleness of purpose, and his honest convictions have frequently made him appear intolerant and assertive. But he would be naïvely surprised if accused of intolerance or assertiveness. Although, on occasions, his admonitions might be uttered in stentorian tones, his arguments advanced with the urgency of a bulldozer, they are never tainted with acrimony. A man of his temperament and convictions could not possibly avoid conflict of ideas, but even those with whom he has disputed most have for him not only the respect due to a worthy adversary, but a real affection for the man himself. Len Applebee has hosts of friends; he has probably had many opponents, but it is extremely doubtful whether he has a single enemy. All those who have had the pleasure and privilege of sharing something of his working life are grateful for the friendship of this vital, energetic, good-humoured, kindly, generous and sincere colleague. We know that his retirement will be no fireside and slippers affair. We wish him many many years of active and useful life. We should like also to assure him of our respect for his considerable achievements and our sincere affection for his lovable self.

## A CASE FOR AN ADAPTABLE THEATRE

by Alfred Emmet

The Questors are now engaged in building a new adaptable theatre at Ealing. Why?

I do not mean why build a new theatre; there is clearly no need to make out a special case for that, I mean—why build an adaptable theatre? The Questors in fact are not so much building an adaptable theatre because they are building a new theatre as building a new theatre because they want an adaptable theatre, and I will try to say why.

Dr. Richard Southern, in his article in the April 1957 issue of *TABS*, sets out some of the possible different forms of stage—and it must be remembered that each different stage form implies a different actor-audience relationship. He admits only three main variations, the picture frame stage, the open stage (audience on three sides of the action) and the arena stage, or Stephen Joseph's *Theatre-in-the-Round* (audience entirely surrounding the action). He accepts, reasonably enough, the Greek theatre and Restoration theatre

forms as sub-variations, the former something between the arena stage and the open stage, the latter lying between the open stage and the picture frame stage. He rejects entirely, however, a picture frame stage "fronted with an ineffectually projecting apron stage." To the extent that Dr. Southern describes such a stage arrangement and its use, I can only cordially agree with him—a forestage which is used for "front" scenes in alternation with scenes inside the picture frame is, I am convinced, an unhappy arrangement, except perhaps for revue. And that is a conclusion reached after a good deal of actual trial and error. But a combination of proscenium stage and forestage does not have to be the hybrid arrangement described by Dr. Southern. In experiments at the Questors Theatre over many years with various forms of forestage, we have evolved what seems to us a valid form of staging, in which the acting area behind the proscenium is extended forward in front of the proscenium by building a forestage of a shape, size and height appropriate to the particular production. This is not to create two acting areas separated by the proscenium line, but *one* acting area, no longer framed, but open to the audience in front. In order to achieve this it is necessary

- (1) to lose or disguise the proscenium arch as far as possible;
- (2) to be able to use scenery on the forestage;
- (3) to unify the forestage scenery with that on the main part of the stage.

This sets problems which are by no means insuperable, but will in some cases be easier of solution when we are also able to change the scenery on the forestage.

Let me repeat that the essential difference between this kind of staging and the picture-frame stage is that, although in both cases the audience is on only one side of the action, here there is no *frame*, and that I am sure is fundamental. The actor-audience relationship is not the same as in the strictly picture-frame convention.

So when the Questors instructed their architects, Messrs. W. S. Hattrell & Partners, to design their adaptable theatre they added "proscenium stage with flexible forestage" to Dr. Southern's three variations.

But this is still the "what" rather than the "why."

When the International Theatre Institute investigated in 1955 (*World Theatre*, Vol. 4, No. 3, 1955) the views of leading theatre directors, designers and architects as to the form of playhouse which should be built in the next decade, there was an almost unanimous preference for an adaptable theatre. Mr. Norman Marshall, in reviewing the replies to the questionnaire, did not set out in detail the reasons for this choice, but from the context the impression was gained that it arose largely from a desire to do the

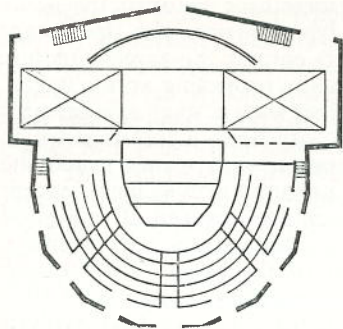


FIG. 1. PICTURE FRAME STAGE with waggon stages and permanent cyclorama. The proscenium "wall" (shown by a broken line) consists of movable screens. Width of stage 77 ft., depth 25 ft. Proscenium opening variable, here 24 ft. A FLEXIBLE FORESTAGE can be built forward to any depth by removing seats from the pit.

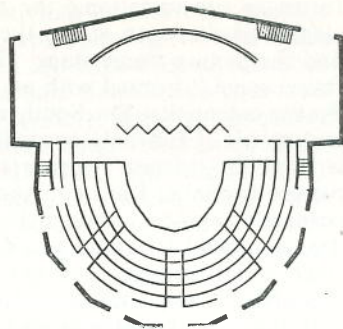


FIG. 2. OPEN STAGE. The stage now covers the entire pit area and seats are added at the sides to compensate for those lost in front. Depth of stage (to proscenium line), 21 ft., width 24 ft.

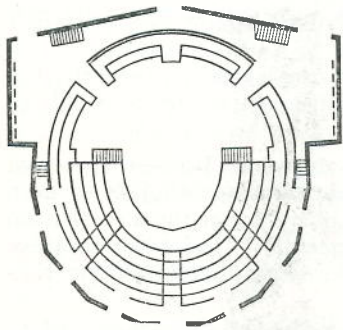


FIG. 3. ARENA STAGE. Proscenium screens slide away against the side walls. Extension screens in the cyclorama are pulled out to make a wall behind three additional rows of seats. Maximum length of stage, 36 ft.

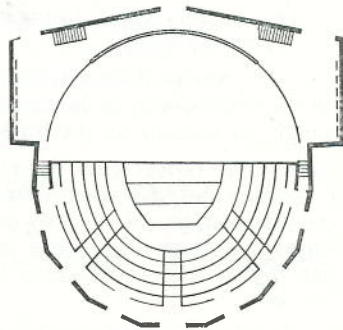


FIG. 4. SPACE STAGE. Proscenium screens are removed and cyclorama screens extended to make a complete horizon. Within this semi-circle, approximately 60 ft. by 30 ft. the acting area (or areas) can be defined by light.

classic plays of various periods, each on a stage approximating in essentials to that for which it was written. Thus Shakespeare should be done on an open stage somewhat similar to the Elizabethan arrangement; Congreve on something like the Restoration stage, and so on.

While I think there is undoubted validity in such a case, I cannot personally find it entirely convincing. It may be that in an age which appears to find a virtue in the quality of adaptability *per se* (cf. adaptable furniture), an adaptable theatre as such has something that appeals to contemporary taste. It may be that to re-interpret old plays on a modern re-statement of the stage arrangements of their own periods is the best way to get them over to a contemporary audience. It is possible that that is just what a truly contemporary playhouse should be.

And yet, if that were the only case for an adaptable theatre, I think I would hesitate, for it seems to me that so far one vitally important factor has been left out—we are providing suitable stages for all the playwrights of the past, but what kind of stage are we providing for the playwrights of to-day and to-morrow? Are they to be expected to find inspiration from re-hashes of the theatre forms of the past? Or are they supposed to continue to be stimulated by the possibilities of the Victorian picture-frame theatre of to-day?

Surely the adaptable theatre will not get us very far unless it includes a further variation, the *new* theatre form which will stimulate new writing for the theatre, just as in their day did the "new" Elizabethan theatre, the "new" Restoration theatre, or the "new" picture-frame theatre, spiritual home of naturalism.

But if we have this new form (Dr. Southern's variation X), which by definition would be contemporary, what need of other forms? Cannot the old plays be best interpreted for modern audiences in a new and contemporary form, as has indeed always been the case? The picture-frame presentation of Shakespeare, for instance, was right and contemporary for the Victorians, whatever we may think of it to-day.

At this point the whole case for adaptable theatre seems to be collapsing. But note that this collapse depends upon a vital "if." If we have this new, contemporary theatre form, *perhaps* there is no need for adaptable theatres. But have we?

Stephen Joseph wrote interestingly and with enthusiasm in the last issue of TABS about *theatre-in-the-round*. But even he does not and, I am sure, would not claim, that this is *the* contemporary theatre form. He has well demonstrated in this country that it is a valid and sometimes exciting theatre form, but its chief claim for consideration appears to be that it is economical. And let no one under-rate the importance of that in these days of high costs.

As Dr. Southern says, "to stand on the threshold of a new era of development with such single mindedness (as to know what is the new form best suited to contemporary needs) . . . argues either an unusual clear sightedness, or a much-too-usual failure to appreciate alternatives."

There, it seems to me, is the real case for building an adaptable theatre at this time—that we do not *know* in which direction the theatre should naturally and logically develop, and therefore we want to build such a theatre to help find out. By actually producing plays before audiences in all Dr. Southern's forms, and more, we shall get a "feel" for the one which has most to offer to a present-day audience.

But it may be argued, why should there be need of such conscious thought, why should the theatre be so unsure where it is going, why all this theorising about what should be strictly a matter of practice? The Elizabethan theatre, the Restoration theatre, the picture-frame theatre were not the outcome of experimental and adaptable theatres built to discover which would be the best. Always the theatre of one period has existed and developed from what has gone immediately before, which of course is the natural way; why should it be different this time? That is a question that needs answering.

It seems to me that during say the past eighty years any natural development of playhouse design has been *artificially* restricted (partly by rigid licensing regulations, partly by lack of new theatre building, partly by the increasing divorce between the artists of the theatre and those who control the buildings), and we find ourselves now therefore behind the times. The thread of natural development has been snapped, and that is why we have lost our bearings and do not quite know where we stand.

The Questors scheme for an adaptable theatre is a deliberate and pretty carefully considered experiment. We do not imply that every new theatre should be adaptable, but we do strongly feel that at any rate one adaptable theatre should be built and operated by a permanent company in some measure accustomed to playing in different conditions, for out of that we will learn—not only the Questors, but the whole theatre—something of value for incorporation in the new theatres that will be built over the next decade to replace the out-of-date buildings which are being closed.

The accompanying plans show the main forms to which the Questors new theatre will be adaptable. It will be noted that there is a small degree of compromise about the picture frame and some improvisation about the arena arrangements. I cannot, however, agree with Stephen Joseph that it will not turn into an open stage very well. It is a matter of opinion whether a "strong architectural brick wall" is desirable for all plays, but we shall be able to provide it for such plays as we feel need it.

It will also be noted that the scheme provides for Dr. Southern's unknown quantity. X = Space Stage, a form which, alas I have not space left to describe.

## SON ET LUMIÈRE

by B. E. Bear

Public entertainment in France under this name has been an accepted summer spectacle in recent years.

In brief, the idea is to show famous castles or buildings flood-lighted in such a way as to form a visual accompaniment to a sound feature of their history. To be successful this requires: (a) a building of sufficient interest to enable a variety of lighting effects to be produced; (b) that there shall be history worth recounting of general interest; and (c) good weather. Further again, being outdoor floodlighting, only night provides the essential darkness and this means a late hour of performance. By its nature the entertainment must be short to hold the interest and a large attendance is necessary to recoup the financial outlay. One castle so treated in France in the Loire Valley is said to have involved an initial outlay of £32,000 and £9,000 per year to run.

Apart from these various factors in planning such a spectacle, what is the essential germ of success? In the 1930s in Strand Electric I worked with Frederick Bentham in our Demonstration Theatre and there, over a period of four years, we performed "Colour Music." This accompaniment of music with changing lighting on various backgrounds was first of all a way of demonstrating his invention of the Light Console. This was, at the time, the most flexible form of lighting control and had just been developed. The interest of those who saw such demonstrations was, however, so great that we found ourselves, by the courtesy of our directors, giving private recitals purely as entertainment to an average self-invited audience of sixty. This went on until 1939.

Even the first Light Console of those days gave us all the facilities we needed or even imagined we might need. Where the hard work came and where real imagination was needed was in making certain that the lighting was an accompaniment to the music and not just a display of effects. According to the nature and style of the music, a background or setting was chosen and to suit this latter, lighting units were placed on call to give us the great variety of effects we felt we wanted. Again, colours were chosen carefully with the mood of the music in mind, often to be rejected several times before the right choice was established. With all this, however, the timing of changes and their aptness were the most difficult to establish. The music told us when it wanted change—we had to find what it wanted and then by constant rehearsal to ensure that it occurred at the right speed and at the right moment. Haphazard changes, however beautiful as lighting in themselves, would immediately destroy any interest that had been built up. Moreover, although the final choice was purely personal and based on no rules, it was, if properly carried out, still effective to sixty people who had no background of knowledge of how to set about



Light Console and setting for Tchaikovsky's Fifth Symphony in Strand Electric theatre in 1939.

it. Even to us now after eighteen years without the chance to try again, this seems surprising and we have to force ourselves back to the certain fact that people did enjoy it. This is not just a digression into an old familiar past, but seems to suggest the discipline necessary to make a success of "Son et Lumière."

Of those which I visited in France this year only that at Versailles approached this discipline in that nearly every change seemed right and the whole sequence built to a climax. Except for the last few excursions into very recent history it was good entertainment.

Before the performance on the Palace itself, a curtain raiser, as it were, was given on the trees and fountains running away down to the lake.\* Here, however, the distances involved resulted in a squandering of resources and all perspective was foreshortened. Large numbers of powerful floodlights could be brought up only to disclose what appeared to be two canvas wing pieces half a mile away. Scale suffered by looking down the vista from above as opposed to looking up at a building. This to me is important. On the Palace itself one did not look at it but up at it, and when features along the roof balustrade were lit one felt a further need to look up in surprise at something undreamed of. What I found to be almost

\* Evidently the order has been altered since I saw it four years ago. I agree with Mr. Bear on the unsatisfactory nature of the park display, but this was made worse for me because the shows ended on this—an anti-climax. EDITOR

an elephantine structure by day had a fairy-like quality under the lights.

Opposed to this were the "chateaux" at Chenonceaux and Chambord. These by day are picture-book fairy castles, but though the latter can lay claim to be the first to attempt this form of entertainment, neither of these had the same impact in performance as Versailles. The first disappointment at Chenonceaux was that the castle was lit when the audience assembled so, in a sense, one had seen the climax before it began. I am sure that to have full value one should start from complete darkness and so grade the available effects that they form a building-up sequence.

Neither of these, nor those at Bois, nor Grosbois, had aptness of change, and effects quite attractive in themselves repeated haphazardly.

At Grosbois, near Paris, the prelude was in a garden beside the house and here the designer had attempted what I referred to as Colour Music in that he tried to change the lights with the music as the sole reason for the show. It was a brave attempt, but the formal music of the minuet did not marry with the natural garden vistas and the jumping up and down of the lights was worrying. With our twenty-year memory a slow-moving music with a slow build-up, which sounds a little corny, would have held attention and pleased by its imperceptible growth. Many may remember with pleasure *A Midsummer Night's Dream* dawn sequence at Regents Park before the war. A much better job was made of the house at Grosbois, where effects were relevant to the music and, modest though the building was compared with the great "chateaux" of the Loire, the whole effect was more of a piece.

One idea sprung out of watching these and so far I have not seen it used. Sound, whether commentary or acting voices, or noises off, is arranged to be directional so that some idea of its supposed origin is apparent. It seems to me that whilst acting voices should come from the distant building, commentary should not, and I think I would try to locate this as if in and amongst the audience. Thus there would be, as it were, a guide explaining quietly the commentary beside you, leaving the acting voices to speak for themselves from the building in quite a different manner. The change from one to another is otherwise difficult to distinguish and the continual harangue from a distance becomes oppressive.

Two attempts have been made this summer at Greenwich and at Woburn Abbey. Both were interesting, but neither, to my view, satisfied that need for aptness of effect and shape as a whole that, to our experience, Colour Music demands.

At Woburn Abbey the building did not lend itself to much variety of effect and the designer must have been hard pushed to suit his effects to the script.

At Greenwich the main disappointment was the dwarfing of



the building and its perspective, by viewing from above and some distance away. This left the face of the Queen's House, the colonnade and the two wing buildings as the main feature whilst the Naval College appeared like a cardboard background, which again limited the designer in the effects he could play with. The view with real potential is that from the river, but there were probably good reasons why this, the Naval College, could not be used for two months night after night.

These comments are, of course, only a personal view and can, I hope, in no way detract from the undoubted success of this effort which had to fight appalling weather. And one must respect the courage of the organisers of both displays who have at last given England a taste of "Son et Lumière."

## ADIEU TO SNUFFING CANDLES

by John Kennedy Melling and Ann Gloria Nolloth

(Part I)

The birth of the nineteenth century saw the great metamorphosis in English playhouses, and their stages and lighting. The small, intimate Georgian theatres, frequented by the nobility, had to be replaced by vast barn-like buildings to accommodate the masses, whose new-found love of the play caused the mass-desertion of the more discriminating in favour of the opera. Thus the new theatres at Drury Lane and Covent Garden seated an audience of three thousand—an audience that demanded marathon programmes, spectacular effects and meretricious drama. Obviously restrained acting and the subdued lighting of candles would not suffice to allow minor stage business to be seen by the whole of such a vast audience. The style of acting known as "barnstorming," which was universally used, was so called because actors were obliged to bellow their parts above the conversation and banter of an audience originally seated on or near the stage in a town theatre or country barn. The actors also had to contend with the house lights remaining on during the play, until the latter half of the century (with such exceptions as Charles Kemble's production of *The Fiend Father* at Covent Garden in 1832). Candles were used for stage and auditorium lighting until well into the nineteenth century; Covent Garden had introduced gas lighting, but in 1828 closed the theatre for a week to enable the equipment to be removed, stating on a November playbill:—

*The Reopening of Covent Garden Theatre.*

*The Public attention is respectfully solicited to the following Facts:—*

*The Gasometers, and Apparatus for making Gas, are destroyed, and no more Gas will be manufactured within the walls of the Theatre.*

*The Circles of Boxes will be illuminated with Wax.*

*The Lights in the front of the Stage, and of every internal avenue to Box, Pit, and Galleries, will be produced by the agency of the purest oil.*

The use of "floats" became more general in Garrick's time; they consisted of wicks floating in oil. The other lighting consisted of hoops of candles suspended above the stage. An amusing anecdote related by Richard Jenkins in 1826 in his *Memoirs of the Bristol Stage* is of Winstone, a comic actor with aspirations to tragedy, flourishing his sword as Richard III in his fifth-act speech, "A horse! a horse!" to such good effect that "the weapon coming in contact with a rope by which one of the hoops of tallow candles was suspended, the blazing circle (not the golden one he had looked for) fell round his neck and lodged there, greatly to his own discomfort and to the amusement of the audience." Catesby found

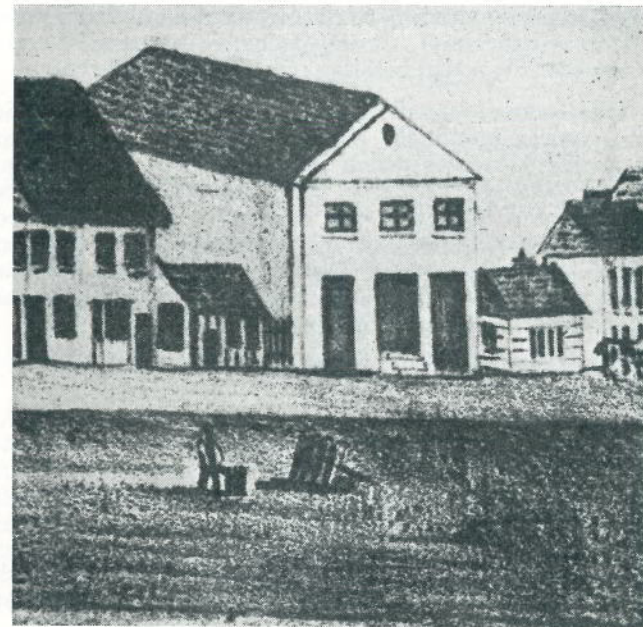


FIG. 1. Photograph enlarged from 1815 Panorama of Theatre Royal, Southend.

himself extricating his King from a rather unconventional predicament! The lease of the Haymarket Theatre prevented the use of gas until 1843. It must be remembered that experiments in coloured lighting had been attempted in the time of the masques of Charles I (strips of coloured silks before the candles), and in 1598 by the Italians, who used glass oil-lamps filled with coloured liquid.

We have conducted research into the Theatre Royal, South End (now Southend-on-Sea), which may be taken as typical of the playhouses at the nineteenth-century fashionable watering places. We found that the first theatre seemed to date from 1793, according to a manuscript note in America which described it as humble and without elegance. On August 26th it opened with the company from the Theatre Royal, Windsor, of whom the manager was Henry Thornton. He was a gout-ridden, inferior actor-manager, real name Ford, born at Clare in Sussex (*sic*), whose proud boast it was that he never attended rehearsals or learnt a part. Yet he had Royal patronage at Windsor, and built or managed theatres at Andover, Arundel, Chelmsford, Guildford, Newbury, Oxford, Reading and Weybridge. In the hands of such men as Thornton was the provincial theatre. In 1797 Ralph Wewitzer (1748–1825) author, manager and Garrick-trained actor, had the theatre; from 1800 to 1804 “terrible” Thomas Trotter from the Brighton and Worthing Circuit provided the dramatic fare in South End, occasionally in the New Hotel itself. In 1804 he built a new theatre, and now we can consider the actual building of a provincial playhouse.

In 1803 Trotter secured a grant of a piece of land in Old South End for an annual rent of 20s. payable to the Lord of the Manor of Prittlewell (the village of which the South End was now on the bank of the Thames). £500 in £25 shares was thought to be all it would cost, but by 1819 the cost to Trotter amounted to £1,450 18s. Our illustration (Fig. 1) consists of an enlargement from a panoramic view of the town from the Thames by an artist named Duthiez in 1815. Some comments from contemporaneous sources will amplify this print:—

“A very small house, but neatly divided into boxes, pit, and gallery.”

“A neat theatre” (1804 and 1806).

“Undergone complete repair”!! (1806).

“It is very well attended” (1810).

“Convenient theatre” (1818).

“A building designated in large letters Theatre Royal which, but for this notice, I should have taken for a very small chapel or rather meeting house” (one door for box, pit, gallery and stage) (1817).

“A small theatre” (1823 and 1840).

“Superior style of elegance” (1831, 1835, 1848).

“In convenience and neatness is not surpassed in many country theatres” (1833).

Whilst it is significant that all reports seem to emphasize the small size and neatness of the actual erection, it must not be overlooked that it already underwent repair in 1806, and subsequent lessees announced the renovations that often have the miasmatic smell of a decaying theatre. Thus, in 1839, Miss Vivyan (whose decamping with the takings from the Royal Kent Theatre the following year was to cause the audience to riot) announced on her playbill for Wednesday, August 14th:—

*The Theatre has been entirely re-decorated during the recess under the immediate superintendance of a first-rate London Artist.*

Similarly, the new manager on Monday, September 4th, 1848, stated, on the latest playbill so far discovered by us:—

*The Nobility, Gentry, Patrons of Music and the Inhabitants of Southend, Prittlewell, Rochford, Leigh, Hadleigh, Rayleigh, Wakering and their Vicinity are respectfully informed, that the above Theatre has been Re-modelled and Re-decorated in a most splendid and costly Style with every comfort to the audience part of the Theatre in addition to easy access, clear lighting and agreeable temperatures.*

*Under the direction of Mr. T. W. Hall*

*Decorator of Her Majesty's Theatre, . . .*

*New Scenery!*

*New Company!!*

*New Decorations!!!*

*New Prices!!!!*

*The New and Magnificent Curtain and costly scenery designed and painted by R. M. Cooper Esq. of Her Majesty's Theatre.*

*The New and Splendid Decorations of the Theatre designed and modelled by Mr. T. W. Hall of Her Majesty's Theatre, the Theatres Royal Drury Lane and Covent Garden, assisted by Master Hall, Messrs. Franks, Brooks-Ginn and Mrs. Hall.*

*The Machinery and alterations by Mr. Johnson of the Royal Italian Opera.*

After such a magnificent announcement it comes as rather an anti-climax that the bill of opera and ballet should consist of leading ballet-dancers, singers, and—for the Opera, presumably—Ethiopian Serenaders, representing the fashion that was sweeping the entire country. Four years later, the Southend Theatre was sold by the executors of Thomas Trotter, who had retained it until his death in 1851, and by 1859 the Theatre had closed its doors for the last time.

*(To be concluded.)*

## LIGHTING CONTROL V

by Frederick Bentham

In the last article we began by exploring the possibilities of an electro-mechanical system to provide inertia, i.e., the possibility that dimmers might only be set to change and not to hold their stations. We found that a twin desk with duplicate levers to each dimmer would give one preset of lighting ahead of that in use when used to control all-electric dimmers, or two presets ahead when used to control dimmers through an electro-mechanical servo.

It is only rarely that we are concerned with a lighting change which involves all the dimmers on the entire switchboard. These changes do occur—a general fade-out is the most usual—but most changes affect some only of the lighting circuits. What we need is a means of energising selected dimmers only and of splitting these up into groups which can be made to move by the pressure of one button or the moving of one lever. Unfortunately, these groups cannot be the same every time; there is no point in having a master to the spot batten, a master to the cyclorama and a master to the stage plugs, for example. This is because our lighting change is likely to use a couple of spots from the spot batten, a dip plug or two, part of the cyclorama and perhaps a spot from the front of house. Let us take a common cue as a specific example. Fig. 1 shows the sun going down behind the window and this means that the various dimmers concerned are gradually on the move from one

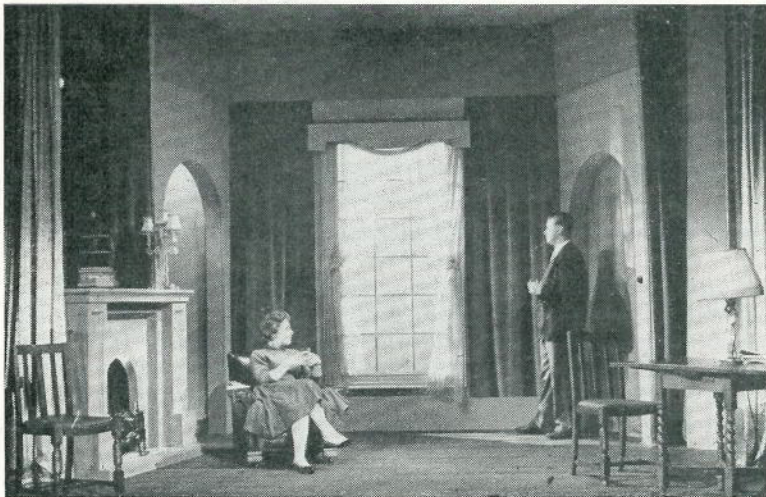


FIG. 1. Late afternoon to be checked down to Sunset.

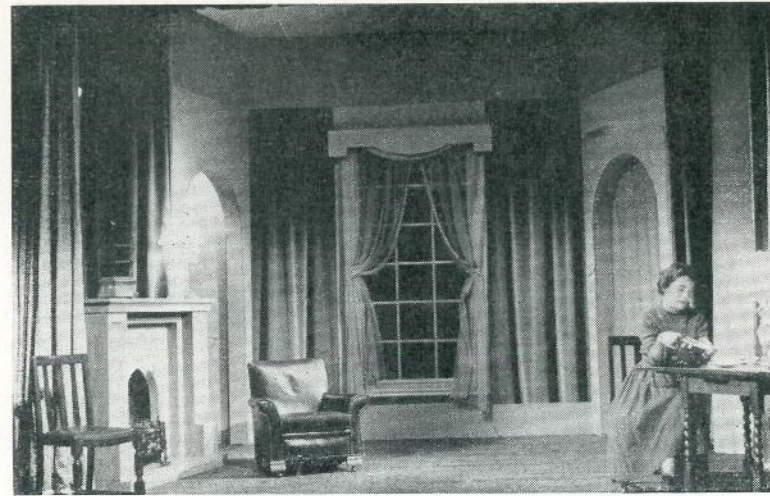


FIG. 2. Cue: Switch on room lighting.

set of levels, which represents afternoon light, to perhaps a set of levels which represent deep sunset. Not all dimmers will be on the move; obviously the dimmer for the fire glow circuit will be stationary and it is possible that one of the blue circuits behind the window will also be stationary. When the light has gone right down to fireglow with faint blue behind the window, one of the characters could be expected to switch on the table lamp in the room. Immediately a certain number of dimmers have to run at full speed, or be switched in, to a set of levels to represent this light. Some of the dimmers used for the sunset will not be used to get this effect, but some of the others—for instance, those on the spot batten lighting the table side of the room—will be required again. This happens because, although the levels may be different, certain of the spots will be used for lighting that area of the room whatever the supposed illumination.

If, later on, the candelabra over the fireplace is also lit, then some further spots on the spot bar and out front will be brought in and perhaps one or two belonging to the area already lit will change their levels (Fig. 2). Thus it can be seen that in a simple change such as a sunset running down to firelight, followed by switching on a couple of lighting points one after the other, we have been working all the time on restricted groups of dimmers; groups whose varied composition is governed by the needs of the production and not by the physical affinity of lanterns in areas.

Variable grouping-up is the backbone of stage control, and if we are to make the best use of the inertia in our dimmers we must

find a way of picking out or forming groups to suit the particular lighting cue at the moment. Once this has been done we will find that the number of *repeat* preset dimmer levers needed is quite small ; because as each change comes along we are only really concerned with setting a small number of dimmer levers out of the total. In addition, we ought to try to find a method of providing general fades such as the dim-out at the end of a scene without the need to use individual dimmer levers. In fact, if this could be extended so that dimmer levers were only used for precise intermediate dimmer positions the operational control obtained from the board would be greatly increased.

Fig. 3 shows a half-way house towards the ideal. It is the



FIG. 3. 60 way Two-Preset Dimmer Control for Belgrade Theatre, Coventry.

control desk for the sixty dimmers in the new Belgrade Theatre, Coventry, an important theatre, since I believe it is the only professional theatre building to be erected in this country since the war. Fig. 4 shows the circuit of the principle known as Lit Move (patent applied for) invented by the writer originally for television lighting control, but since discovered to have application to the theatre. The diagram shows the servo mechanism with the two driving clutches for the dimmer at the top and a polarised relay in the middle. When the dimmer lever "control pot." at the bottom is moved over, a current flows up the centre line through the coil of the polarised relay and thence to the miniature dimmer "pot. on dimmer" which is driven by the main dimmer itself. The action of this current on the coil of the polarised relay is such as to put it out of balance and cause it to make contact with the appropriate driving clutch. Provided the contact of the polarised relay has driving current on it the clutch will grip and the dimmer will be connected to a continuously revolving driving shaft and move until its own miniature dimmer is at the same position as the control dimmer down below. At this point no current will flow down the centre line and the polarised relay coil will cause the relay to open and the whole thing comes to a stop.

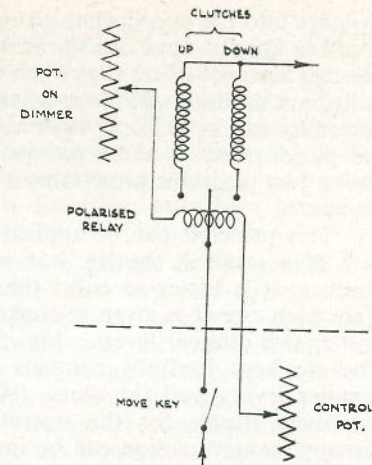


FIG. 4. Schematic of Lit Move circuit.

So far so good, and the engineers would find nothing to write home about. Under Lit Move, however, the polarised relay contact is not provided with driving main all the time. This driving main is made subject to group switching ; in the case of the Belgrade Theatre, the contact of the polarised relay is brought down to a three-position switch above each dimmer control lever. These switches allow the dimmers to be grouped-up to three masters, and thus, although a whole series of dimmer levers may be set in such a way that the polarised relay coils receive current, i.e., the dimmers want to move, they are prevented from moving unless their group master is closed, which will provide the necessary driving current to those particular relays. We have in effect two types of control to give movement—the preset coupler which joins the relays to the dimmer levers and the group masters which provide the driving current.

The composition of a particular group can be varied from lighting cue to lighting cue by merely putting the three-position

switches into the appropriate grouping. It is normal on this switch-board to keep a supply on the centre position of the switches so that one can always be sure that when the dimmer switch is in the centre position a dimmer will move when a preset coupler is closed. This normality can be broken, however, and in fact it could be said that the panel provides three groups and, as there are twin dimmer levers, two positions preset ahead to each of the dimmers in those groups.

This principle can be applied in the form just described in the case of a smallish theatre, but where there is a large number of dimmers it is better to enlist the aid of the console type of desk. Here each circuit is given a stopkey as with the Light Console, and one or two dimmer levers. Fig. 5 shows this kind of arrangement. The stopkeys feed the contacts to the polarised relays and the dimmer levers feed the coils. When this is done grouping-up is extremely simple for the operator because the normal stopkey moving memory action can be invoked.

The memory action has been described many times before, but to repeat it, it simply consists in the capturing of any group of stopkeys which are put down (i.e., on at the moment) to operate

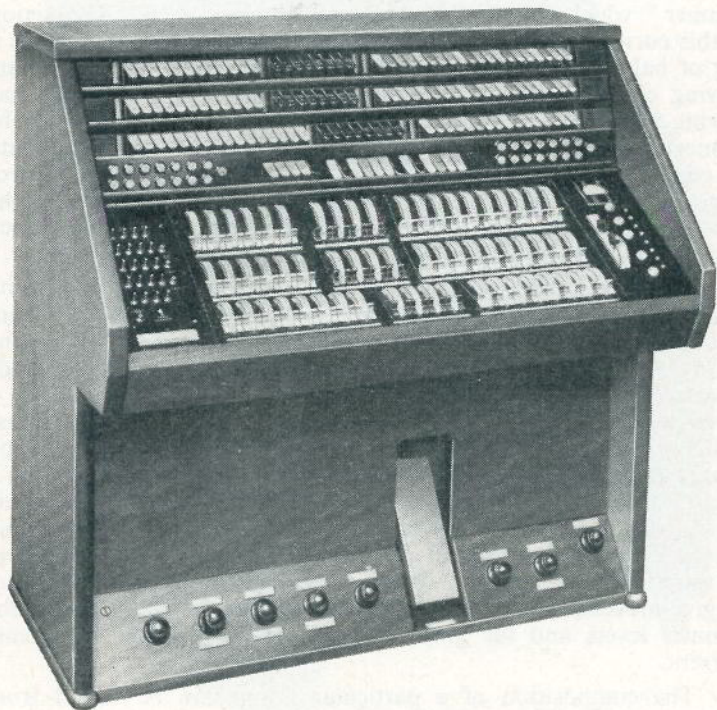


FIG. 5. 120 way Console-Preset desk in Palace Theatre, London.

from a series of single buttons. If the master button is pressed and any particular memory button, then whenever the latter is pressed without the master, the stopkeys themselves will spring "on," actually moving to the combination selected. The advantage of this system is, of course, that it does not involve more than one switch to each dimmer, and we can have as many groups as we provide memories. The usual number is fourteen, but there are some installations with twenty.

In addition to the ease with which groups can be picked out automatically, the stopkeys themselves are very easy to move and rapid fingerwork and selection of groups can easily be carried out manually when necessary. We now have an arrangement which is known as Console-Preset, whereby the group of dimmers to move is selected either by putting the stopkeys down by hand or by pressing a button with a previously memorised combination. Once selected, the move push will drive the dimmers of these selected circuits to the levels set on the dimmer levers. Thus, the 120 dimmer levers in the photograph (Fig. 5) could all be set to the level at which the particular dimmers are first required, but the dimmers themselves could be brought in one after the other by putting down their stopkeys, or could be moved in groups by putting down groups of stopkeys. It is a simple thing, once we have stopkey selection, to avoid the use of dimmer levers for full-on movement or for dimming right out or even for intermediate positions. All that is needed is a dial and a raise and lower button. Procedure is then as with the early Light Console raising or lowering dimmers *en bloc* to the level shown on the dial, the said dimmers being those selected on the stopkeys at the time. Only when a particularly tricky manoeuvre is in question, where a number of dimmers have to go to varying levels simultaneously, do we need to bother with the dimmer levers themselves.

The speed at which these changes take place is governed by the master speed pedal, the large flat object at the bottom of the console. The master buttons giving raise, lower or choice of preset are duplicated as finger and foot controls. Further still, the stopkeys are made to select and to operate ordinary switching actions quite independent of the dimmers through a blackout master, and this can be further extended to cover selection of colour filters in the manner of the Light Console. In fact, the new Console-Preset is a Light Console and preset type of board combined. Hitherto they have always been opposed to one another as quite differing techniques, but here it is possible for them to combine in such a way as to assist each other and this form of control is to be found in the Palace, Piccadilly and Sadlers Wells Theatres, London at the moment. What forms the backbone of the whole business is the notion that we select circuits for operation and then close some master to perform the operation itself.

Thus we select for a lighting change and can totally ignore any

dimmers or switches which have to hold their station. Cut the main cable of the control or knock all the controls off, nothing will happen until the correct combination of selection and master is used, the lighting always retains its position. Whenever a change has taken place, the switchboard can be set up for the next series of changes, and it may be that the dimmer levers are set for something on the switchboard which will not happen until half-way through the show : all the rest of the lighting changes taking place in the console method of operation.

It will occur to the reader here that because the dimmer levers are unrelated to the actual lighting held at the moment, we have no indication at the control as to the state of lighting in use. It is desirable during the show to be able at any time to check the position of the dimmers, and during lighting rehearsal it is absolutely vital. There is, however, no difficulty in obtaining an exact indication of **the position of the dimmer irrespective of its dimmer lever**, since a heavy touch on any stopkey immediately shows on the master travel dial the actual position of that particular dimmer. What in fact happens is that the dial is connected back to read the position of the little dimmer shown in the top of our diagram (Fig. 4). This second touch or heavy temporary contact on each stopkey is also made to serve another useful purpose in that any dimmer can always be pulled out for individual movement by merely holding its stopkey down to second touch, thus we can make immediate modifications to any dimmer without bothering to use any masters. The dimmer lever in question is not the actual lever belonging to the circuit, but that which appears on the right-hand panel. If several stopkeys are so pressed simultaneously then this one dimmer lever can be used to drive them together. There is, in addition, a master dimmer which **works from this panel, using a second lever alongside, and this applies** a proportional cut to any of the circuits being driven at the moment and is thus a further extension of operation.

Using all these devices it has been found quite unnecessary to use all the miniature repeat preset levers of the multi-preset system. In fact, the three theatres referred to have but one set of dimmer levers giving one change of lighting preset ahead of that in use, but they have fourteen memories to invoke the group movements essential to Lit Move and, of course, they have the raise and lower buttons which render dimmer levers unnecessary for coarse movements. This Console-Preset system represents a different approach to the problem of lighting control, but it is an approach that at present can only be used with electro-mechanical dimmers. It is quite impossible with all-electric dimmers because the whole basis is inertia, a quality not possessed by the latter. In the concluding article in our next issue we shall consider the application of these principles to controls where the number of dimmers exceeds 120 or thereabouts.

*(To be concluded.)*

## FIREWORKS

### General

The various pyrotechnics available for stage purposes can be briefly classified as bangs, flashes and smoke. The loudness of the bangs, the brightness of the flashes and the density of the smoke are difficult to describe in conversation and more so in print. Experience is the only true guide.

It cannot be too strongly emphasised that the pyrotechnics described below are **potentially dangerous** unless used strictly in accordance with the instructions supplied with each container. For the same reason such material (with the sole exception of slow burning smoke powder) cannot be sent by passenger train, post or air and may only be despatched by goods train or carrier licensed for such traffic. Ample notice should, therefore, be given of requirements to ensure arrival by any certain date.

### Slow Burning Smoke Powder

Smoke is obtained from this powder by the application of heat which is **usually provided** by an Element Smoke Box, this consisting of a 750/1,000-watt heater element housed in a metal box covered by a mica tray.

The powder which must be kept dry is spread evenly on the mica and will commence to give off smoke ten to fifteen seconds after the element is switched on. Experience shows that one heaped teaspoonful of powder will, whilst heated, give off smoke for three to four minutes, the volume being somewhat similar to that of an averaged sized damped down garden bonfire. If the element is switched off smoke will cease as the heat dies down. Thus, used with discretion, it can add realism to a stage fire or similar effect, and often the box can be placed off stage so that the smoke can be fanned across an opening to suggest mist. This can be most effective if used in conjunction with a gauze. Unless there is adequate ventilation the smoke will take a little time to disperse and may, therefore, in certain cases, act as a temporary irritant to sensitive throats. We have not, however, heard of any harmful effects from the use of this powder.

The Smoke Box must be cleaned after use to prevent corrosion of metal parts. Unlike other pyrotechnics this powder can be sent by post or passenger train.

### Naked Ignition Smoke Powder

This type of smoke-producing powder, as its name implies, is more inflammable than the slow-burning type and the quantity to

be used, the method of ignition and the precautions to be taken, are set out for flash powder below. When ignited the powder will burn with a flame for 15-20 seconds, producing a quantity of relatively odourless smoke.

#### Flash Powder

This type of powder is also very inflammable and is ignited in a different manner. The most usual method is to use a Terminal Flash Box. This is a small metal box carrying a piece of asbestos on which are mounted two terminals. Having first ascertained that the circuit switch is off and the box disconnected from its plug socket so that it is perfectly safe, a piece of light-gauge tinned copper fuse wire (of smaller capacity than the circuit fuse itself) is then connected across the terminals, which should be cleaned before use. The lid should then be closed and the box charged through the top aperture. **Not more than one level eggspoonful of powder should be used.** A greater quantity produces no better effect and only results in damage to the flash box. The spare powder should then be removed to a safe place and the flash box plug replaced in its socket, leaving the effect ready for use. When switched on the fuse wire in the flash box blows, thus igniting the powder which will give a blinding flash with a puff of smoke. The effect is often used in the footlights to distract attention during the sudden appearance of a character, for example in Pantomime. The box must be placed well away from the scenery owing to the naked flame.

This powder and the naked ignition smoke type, referred to in the last paragraph, can also be ignited by an "electrically detonated pyrotechnic fuse" as described on p. 31, but an open metal tray must be used.

#### Flash Paper

This is an impregnated tissue paper which can be ignited by a cigarette, match or pyrotechnic fuse. So treated, it flares into light, either red or green, and consumes itself. Mostly it is used for trick effects or with other pyrotechnics as an igniting wrapper.

#### Red and Green Transformation Powder

These two powders, of which the first is dark brown and the second pinkish white, are like firework flares. They can be ignited by a taper or, if mixed in the proportion four parts Flash Powder to one part Transformation Fire Powder, by a Flash Box or pyrotechnic fuse. *Once more, great care must be taken in handling to prevent accidents.*

#### Maroons

These provide bangs, and there are three sizes made—medium, small and miniature—differing in their resulting noise. They are

fired electrically by closing a mains circuit to which they are connected or by feeding 4 v. to them from a dry battery. The following sequence must be followed to prevent accidents.

First a tank or dustbin must be fitted up with a terminal bar to which the maroons and the mains can be connected. **This tank must be provided with a wire mesh cover to catch any fragments from the explosion, but never with a lid. The circuit must be protected with 10 amp. fuses when used on mains supply. The plug connecting the tank lead to the mains must then be taken out and its circuit switched off, so that the lead into the tank is positively safe. The maroon is then connected to the terminal bar and hangs in the tank ready for firing. A spare maroon on another circuit should always be connected as a stand-by in case of failure and should be hung at a different level inside the dustbin. The mesh lid should then be closed and, after checking that the switch is off, the plug replaced.** The tank should not be near the setting as there is a flash and some smoke when the explosion takes place.

Whoever is responsible for firing a maroon should either be able to see that no one is endangered or know that the tank is in such a position that no one can go near it. He should also be alone in his responsibility for connecting and preparing his charges for firing.

As regards the resulting noise, there would seem to be no reverberation and the small maroon could be said to sound like the slamming of a heavy iron door. It is certainly louder and sharper than a heavy bang on a big bass drum. The medium maroon can best be described as being at least twice as loud. After the explosion the remnants may smoulder or burn in the tank and it should be cleaned out as soon as possible.

#### Pyrotechnic Fuses

These small fuses are electrically detonated either from a 4 v. battery or mains supply, and are useful for igniting Naked Ignition Smoke Powder, Flash Powder or Paper, also red and green Transformation Fire Powder mixed with Flash Powder, whenever the use of the Flash Box is not convenient. The Fuses contain a small amount of explosive material and should therefore be handled with care. The inflammable powders should always be placed on an open metal tray to minimise any risk of fire.

#### Warning

NEVER load or connect any such device without it is isolated by switching off and by withdrawing a local plug under the sole control of the loader. Read instructions carefully. Replug only when everyone is clear. Fire from a switch in view of and local to the device. The switch should preferably be double pole ; if single pole care must be taken to see that it is in the live feed *not* the return. When mixing and loading powders never use metal spoons, etc.

## BOOK REVIEW

**Magic of Make-up for the Stage.** By Harald Melvill. *Rockliff.*

Mr. Melvill turns from *Scenery and Stage Mechanics* and gives a comprehensive account of the alternative methods, which can be called *Leichner* and *Max Factor*. This is an over-simplification since *Max Factor* make grease-paint in addition to *Pan-cake* and *Pan-stik*, while *Leichner* confine themselves to grease-paint "invented" in 1873 by a German actor, whose name is now a household word in the Theatre. *Max Factor* (of Hollywood and all that it implies) developed a "dry" make-up which is used in the main for Film and Television. The author fully describes the methods and some chapters leave the reader a little confused at first reading; for example, under the chapter heading, "The *Max Factor* Methods," a middle-age make-up is described entirely in the *Leichner* method. The arbitrary and completely different numbers and nomenclature of the two firms is somewhat clarified in a comprehensive list of all the products at the end of the book which is of great value, and even the prices "subject to alteration" are printed. Although price does not greatly concern the amateur—for whom the book is written—the only alteration in *Leichner* prices since the war has been due to the various Purchase Tax percentages levied at the whim of successive Chancellors of the Exchequer.

While most amateurs use grease-paint, the book puts both methods before the reader leaving him to make the final and personal choice. The author stresses the need to practice and points out how simple experiment is, given "the necessary equipment—the more modest the better—and a certain amount of knowledge combined with keen observation."

The text is illustrated with simple line drawings and some excellent photographs that will repay study. In addition to chapters on straight and ageing make-ups, there are chapters on *Spectacular Make-up* (mostly anecdotes, including *Arthur Phillips'* change from *Jekyll* to *Hyde* which was achieved with a toupee and no make-up at all!), *National Characteristics*, *False Noses*, *Beards* and *Moustaches*, and *Wigs*. In this last chapter the reader is advised to avoid wigs if possible, yet a wig can make more difference than any amount of paint and can help the player in creating his characterisation. Mr. Melvill does not ignore the effect make-up has on the actor himself and makes a plea for dressing-room lighting under which the finished product will be seen—an excellent piece of common sense which can save time and last-minute alterations at dress rehearsals. The professional has experience to aid him, but if an amateur has a scene to play in blue light, let him examine his make-up lit, say, with a sheet of 18 Blue, and he will learn a great deal about the effect of blue light on red pigment. Actresses who have looked at their street make-up under modern Mercury Vapour street lighting know already!

Mr. Melvill does not elaborate on the effect of lighting on make-up except to say that "white and amber lighting is most generally found in amateur halls." If this is really so to-day, then many of us who lecture and write about lighting, and indeed the Editor and contributors to *TABS*, have been wasting much time and effort for many years.

The most important sentence in the book is, "There is no mystery about make-up," and for those who think any mystery exists, the author will do much to remove it in spite of the word "Magic" in the title. Mr. Melvill reminds the reader that handling grease-paint is a painting job, so that the graphic artist will find it easier than those who cannot handle paint brush or pencil. The art is a kind of portrait painting, and those who want to learn should prop this book in front of a mirror, get out the paints of their choice, and experiment at home.

Christopher Ede