

# TABS

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## EDITORIAL

We are glad to be able to announce three new services—or more correctly two new ones and the impending re-instatement of a pre-war one. To deal with the last first, our demonstration theatre in London is being rebuilt and should be ready early in the New Year. It will not, however, be on the old lines and our plans are described on page 23.

A completely new service is the provision of sound effects records—not just the stock peal of bells or inevitable car changing gear, but a tailor-made article for each production—the sounds required in the order required and of the duration required. Further details will be found on page 10.

Another service we now offer is only indirectly of a theatrical nature. Our experience in the repair and renovation of our own stock of decorative lighting hire fittings has led us to make our facilities available to the public. If any of your fittings at home are the worse for wear, send them to our Electric Light "surgery-cumlaundry." Details may be had from our Fittings Dept., 271 Kennington Lane, S.E.11.

In our last issue we included the hanging plot for the lighting equipment for a Pageant. In this issue on page 16 by courtesy of Messrs. H. M. Tennent, Ltd. we do the same for "Death of a Salesman." The layout prepared by Mr. Joe Davis, Lighting Engineer to H. M. Tennent Ltd., is the one being used for the production at present running at the Phoenix Theatre, London. This layout is taken from the original lighting designed by Jo Mielziner, the well-known American designer and lighting expert for the New York production. As will be understood this is quite a "heavy" show and with the exception of two pauses of about fourteen minutes and seven minutes respectively, the 69 lighting cues in the show follow each other almost continuously. The 98 dimmer ways on the theatre switchboard have been supplemented by a further 30 on portable dimmer boards. The chart not only indicates the actual circuit on which each lantern is controlled, but also the American and equivalent English colour medium used.

Colour medium sample booklets are now available. May we again point out that until colours are standardised by the British Standards Institution, there may be slight variations in shade.

Our Trumpet Blowing Act (Not to be confused with StagesounD effects)

#### First Fanfare:

One Saturday night recently, shortly before midnight, a 36-ft. Batten complete with 19 lanterns crashed to the stage of a London theatre. Fortunately no one was hurt and the fact that we mention the matter may be taken to indicate that both we and our equipment have been completely exonerated from the mishap. All equipment was replaced (from our Hire Stores) tested and left working by 1.40 a.m. that (Sunday) morning—it had to be, as there was an important dress rehearsal first thing that day. Total time including waking and collecting staff, delivery and re-erecting equipment, two hours.

#### Second Fanfare:

Wanted for a Royal Command Film Performance:

36—Pattern 76 Acting Areas.

3-12-ft. Bars with single chain suspensions.

24—Pattern 50A Pageants.

24—Boom Arms.

4—18-ft. Boomerangs.

18—Barrel Clamps.

1—18-way Internally wired Barrel with 90-ft. tails and 10 amp. plugs.

42-20-ft. lengths W/S Flex with 10 amp. male and female plugs.

3-15-way Multicore Cables 100-ft. long with 6 pairs 10 amp. male and female plugs. (For 12-ft. Bars.)

2-40-50-ft. 15-way Multicore Tails with 10 amp. male and female plugs.

2-70-80-ft. 15-way Multicore Tails with 10 amp. male and female plugs (for Bars).

48—12-inch Colour Frames.

3—12-way Interlocking Boards.

4—6-way Interlocking Boards.

3-40-50-ft. Mains Cable.

4—Loops.

3—100 amp. I/C Switchfuses.

3-Short Bights. 3-Link Boxes.

9-Pattern 102 2-kw. Spots complete with stands, cables,

Delivery required—twenty-three hours. Delivery given—eight working hours.

#### Finale:

#### Service or Doing What Comes Naturally

Folks are dumb where I come from, They 'aint had any learning, Still they're happy as can be DOING WHAT COMES NATURALLY.

Annie Get Your Gun.

#### Thorn Electrical Industries Ltd.

In the Editorial to our September issue we reported upon a demonstration of fluorescent lighting as applied to the stage which had been given in London during the summer. Although we did not say expressly in our report that the demonstration was one given by Thorn Electrical Industries Ltd., we were reporting upon their demonstration and this may have been so understood by some of our readers.

In our report we drew attention to the possible danger to health attending the eventual disposal of fluorescent lamps generally, but Thorn Electrical Industries Ltd. have pointed out that this report could be regarded as being a direct unjustified criticism of their own lamps. We are informed by Thorn Electrical Industries Ltd. that their lamps contain no substances which constitute a danger to health when the lamps are broken up and, as our report was made without any investigation by us of their lamps in this respect, we accordingly unhesitatingly withdraw any expressed or implied criticism of Thorn Electrical Industries Ltd.'s lamps and express our regret and apologies to them.

### THE DRAMA ADVISER

By Robert G. Newton

Middlesex County Drama Adviser and Editor of "Playtime," the bulletin for Amateur Drama Groups in Middlesex. He is also on the editorial board of "The Amateur Stage."

I have been asked to write a few words on how to make the best use of a Drama Adviser. In the first place there are many different kinds of advisers: some are Carnegie-sponsored and don't work in schools, others work only in schools; some operate in large, sprawling urban areas, others in the comparatively wide open spaces of the countryside.

Again the Advisers themselves are so different: not only are they male and female, but some are ascetic and sandalled and others are bouncing and jolly: some could inform you accurately about the obscure details of Elizabethan costume and others might scarcely be able to tell you the difference between a bustle and a wimple. Yet in spite of this difference of temperament and interest most advisers are expected to have a comprehensive theatre knowledge both from artistic and administrative angles; and in addition, a knowledge of the social and educational fields in, and through, which they function. They are expert adviser-organisers either to a voluntary county drama committee or to the Local Authority direct. This system works reasonably well in a small (size of population) area, since the adviser's field of operation is more clearly marked. Much depends upon the vitality of the organisation for which he or she works and also on whether the adviser is personally an almost fanatical enthusiast with considerable organising and administrative ability. Although the patterns of relationship between the adviser and the employing body vary, there is, in general terms, a similarity of conception as to his main functions, which are to stimulate, foster and organise amateur drama within the fields outlined by his terms of reference. He is universally regarded as a "Jack of All Trades" with the result that he is probably master of none.

This is, admittedly, the tidiest and simplest administrative framework into which to fit the adviser. Yet one cannot help asking sometimes whether it is the most satisfactory arrangement for getting the best out of the adviser, if (and this is a very big "if") the fundamental purpose of employing a drama adviser is concern for the artistic development of amateur theatre activity. Is not the existing system, perhaps, more likely to encourage efficient mediocrity?

By and large, would it not be possible for the more routine administrative elements in amateur drama (particularly where it is included amongst the educational activities of a social organisation like a community centre) to be handled as part of an Authority's

general scheme for further education? This would enable the advisers to concentrate on their main jobs, which are the stimulation and the fostering of creative and imaginative elements within the amateur theatre. In order that the advisers be used to the greatest advantage they should work as a team controlled either by some central national, or considerable regional, body through which they could be employed on the jobs or job for which they are particularly suited and where there was the greatest need. A competent local authority further education officer, guided by a drama advisory committee, could assess what would be the most immediate need for his area at a particular time and then apply to the Central or Regional body for an appropriate adviser to carry out this particular piece of work. He might feel that his requirement was a fresh stimulus to his dramatic work in youth clubs and request, for a period, the services of a specialist in introducing drama by means of, say, improvisation. Again, it might be felt that insufficient attention was being paid to stage presentation and decor, or it might be considered advisable to have someone to undertake an elaborate production taking in many drama groups of different types. In other words, the particular needs of a district would, as far as possible, be dealt with by the advisers most suited to them.

I am aware that the organisation and administration of such a scheme has many difficulties, but its advantages would be two-fold. In the first place it would help to ensure that the best use was being made of the adviser; and secondly, the groups themselves would have the opportunity of having their imaginations stimulated and their technical abilities developed by specialists. In addition, the impact of different personalities would, in itself, be a stimulus and a valuable stimulus at that.

## There is no short cut.

By post at any rate, there is no short cut to our Southern Hire Dept. stores at Kennington Oval. Since we moved our stocks there earlier in the year, things have, generally speaking, gone with a swing—that is to say goods have been dispatched and collected from there, and, wonder of wonders, have usually been returned there.

A number of people have, however, started corresponding direct with Kennington presumably in an attempt to save time. But as the personnel there have neither the facilities nor authority for coping with anything other than requisitions from Head Office, far from saving time, unnecessary delay is occasioned.

In spite of the obvious merits of co-operation and universal pleading that we should subordinate individual kudos to communal welfare, the competitive spirit still flourishes like the green bay tree. Those who may not themselves be competitors will usually seek the satisfaction of watching others in conflict; and the bloodier the conflict the greater the satisfaction. Skilful boxers who avoid a climax of prostration provoke admiration for their ability but do not arouse the wild enthusiasm created by a less skilled performer who slogs another into insensibility.



"... the sublime satisfaction of public recognition"

There is much talk of the cultural value of non-competitive festivals of folk drama but there is a continued cashing-in on the entertainment value of conflict. And a good time is had by all. The winners have the sublime satisfaction of public recognition of their obvious superiority and all the losers have the consolation of being able to argue that judgment was biased and unintelligent. And the audience endures the preliminary suffering in order to wallow sadistically in

the ultimate castigation of the contestants.

An adjudicator is rather like a one-legged referee trying to control a game in which four teams are competing, one playing hockey, another soccer, a third rugger, and the fourth insisting on lacrosse. If anybody gets any ball in any net the referee would be pretty safe in recording a goal. It has the quality of factual certainty. But the poor adjudicator is expected, when refereeing a drama festival, to express mere opinions in mathematical form and to reduce such intangibles as "dramatic endeavour" and "production" to a system of points. A scale of marking is imposed on him in a vain attempt to obtain a standard basis of judgment. He is supposed to be capable of complete impartiality and the system of marking is the outward sign of the hollow pretence that he has achieved it.

If each contesting group were to perform the same play it would be remotely possible for an adjudicator to achieve some sort of reliable comparative assessment of performance, always assuming that anybody were willing and able to undergo the mental and emotional strain of witnessing anything up to two dozen performances of the Committee's choice. If his need of the fee were pressing

and his powers of endurance phenomenal, the adjudicator would probably stay the course but it is difficult to imagine anybody but the most rabid partisans paying for the privilege of being an audience. The varied choice of plays has something to commend it. Not only does it reduce the risk of complete boredom for the audience but it gives greater scope to the adjudicator's versatility after the performances.

The adjudicator has a function analogous to that of the critic but his assessment must be more precise and he has a moral and commercial obligation to give reasons for his judgment. He is. however, a star performer. He has a duty to his audience. It is not sufficient that his summing up shall be informed and impartial; it must also be interesting. It should be flavoured with the spice of humour and, if possible, mixed with a modest measure of the milk of human kindness. But it must not be sycophantic. There is a prevalent tendency to treat the amateur theatre generally with exaggerated respect; which is a pity, as, only too often, amateur players have too much complacency about too little achievement. The festival adjudicator must avoid the insincere flattery on which vanity feeds so avidly. If he is qualified to be an adjudicator at all. he knows only too well that most of the performances he must judge are incapable of withstanding ideally impartial judgment. He knows that if he must represent his ideal performance as being 100. he couldn't justifiably rate the performances of the best of his victims at more than about 50; of course, if he followed his true inclination, he might perhaps allot ten marks for a laudable intention and leave it at that. But, unlike the newspaper critic, he may not stand on the pinnacle of perfection; he must descend to a lesser eminence from which to make his comparative assessment. How



"... the audience ... have a right to see the blood flow"

far he descends is largely a matter of personal selection, but he is expected to maintain a pretence of still adorning the pinnacle. His descent, of course, makes complete nonsense of the marking system which pre-supposes that any judge must stand on the same spot and that the p. of p. of any adjudicator has the same geographical location.

The victims cannot expect strict justice; they wouldn't like it if they got it. The most one can hope of any adjudicator is that he

has sufficient knowledge and integrity to enable him to temper justice with a modicum of mercy while preserving a standard of judgment that is not merely merciful. And it must be recognised that, although the participant groups have associated to employ the adjudicator, his responsibility is not solely to them. The audience

must be considered. Having paid their money to see the scrap they have a right to expect to see the blood flow. Unless the adjudicator is able to create some of the atmosphere of the arena he will be a flop as a performer and lose in box office appeal. The competitors must realise that they are the gladiators and must be prepared to be sacrificed if they would perpetuate this British equivalent of a Roman holiday.



"... pretence that opinions may be translated numerically"

Adjudicators must be judicious as well as judicial. They must preserve a nice balance between the need of the audience for entertainment and the desire of the contestants for adulation masquerading as a need of constructive criticism. When the inevitable happens and some adolescent actress tries to delude the audience into accepting a boarding-school accent, an expensive hair do and a pair of shimmering nylons as the hallmarks of the bedraggled slut she is supposed to represent, an

adroit adjudicator will seize such an opportunity for acid comment with avidity. But such chances are probably few; in the main he is trying vainly to treat as incontrovertible facts what he knows to be merely personal opinions. And he must, if he would retain his job, preserve the pretence that his opinions may be translated numerically.

Festival committees should realise that it is not possible to get any reliable numerical division of a stage production into its various components. It is not by any stretch of pretension a factual judgment apart from a few minor considerations. If costumes and furnishings are flagrantly out of period it is possible for the most tentative of adjudicators to be emphatic; but on such matters as the use of lighting, the suitability of particular colour schemes, the desirability of the leading lady making a tempestuous exit through a gap in hedge instead of a leisurely one through the inevitable French window, there are likely to be as many opinions as there are adjudicators. No matter how satisfying it might be to have a reliable score-card to justify a decision, it has to be recognised that an adjudicator is merely a critic . . . a critic with human fallibility who will choose his winners according to his own particular assessment of artistic endeavour and achievement without the aid of any ready reckoner. He will still have to be pachydermatous. His decisions will still be applauded by the minority (the winners) and derided by the majority (the losers). The former will still want to embrace him and the latter will still cut him or long to strike him dead. But his loss of the fetters of figures will give him a much needed freedom to let himself rip. Festivals have little to justify them if they are not festive. They may be foolish but there's no earthly reason why they should not be good clean fun. P. C.

## NOISES OFF—SOME SOUND ADVICE

Introducing a New Strand Service— STAGESOUND EFFECTS RECORDS

It is the first meeting of the company and staff of the next production. The producer outlines the story and setting for the new play. Miracle of miracles, it has just the right number of male and female parts for the company and they are all of the right character. It is a single set—a railway waiting room—which presents no difficulties to the scenic designer and builder, and will fit on the stage very nicely. Everybody is happy—until the producer says of course there are a few off-stage effects, but the stage staff should be able to cope with them alright. This is where the stage manager gathers his assistants around him, slinks into a quiet corner and goes through the script with a fine tooth comb to find out just what he is expected to cope with.

After getting through the first act, the list of effects has become quite formidable. An express roaring through the station, a taxi



arriving and departing, the clank of milk churns, a luggage trolley going along the platform, a "local" arriving at the station with a whistle and escape of steam, the "local" departing, a plane going over the station, and so on. By this time the stage manager has already eaten two pencils and torn out most of his hair, imagining the load of "junk" he has got to have off-stage to make all these noises (even if he can make them convincingly anyway), when one of his younger and more ambitious

assistants remarks that the only way to do them is by using recordings.

This starts a new train of thought. Can they lay on sound equipment to play these recordings always presuming they can get the recordings?

Let's deal with the equipment position first. Usually the local wireless man will co-operate and has some public address equipment which he will hire for a small fee. If this equipment has two turntables, which can be independently faded in or mixed, so much the better, but if not, one will suffice if the recordings are organized correctly. If no such equipment is available, then there is bound to be a member of the company who cwns a radiogram, and can be persuaded to lend it for the run of the show. Whichever is available, the loud speaker should be positioned off-stage in the position from which the sound is supposed to come. If several speakers are available then they can be placed in various positions and switched

in and out as required, but remember, if the speaker is placed in the middle of the back wall of the stage, and the cast all turn and look off left, the audience will swear that the sound is coming from off left; so if one speaker only is available and sounds are to come from various positions, the place for it is the middle of the back wall. The audience can be persuaded that the sound is coming from anywhere merely by the actors looking in that direction.

Having settled the equipment position, the question of recordings must now be dealt with.

There are a large number of effects available from the normal commercial recording companies, but these stock effects do not always quite fill the bill, either being not the right length or not quite the right tone for the particular production. The answer is therefore to get what are known as "direct recordings" which have a complete absence of needle scratch or "hiss."

But where from? Why, from your old friends The Strand Electric! But you never knew—of course you didn't because this is a completely new service and this is the first time that we have publicised "StagesounD" Effects Records. In future all you have to do is to order your sound effects with your lighting equipment, and with the usual amount of faith on your part and perspiration on ours, the whole boiling will turn up together.

Direct recordings are a special type of record, which need a slightly different handling from ordinary ones. They consist of an aluminium base which is coated with a film of lacquer. These records are not processed and are therefore much softer than the usual type, are unbreakable and much lighter.

If lightweight, or miniature, pickups are available, then these records can be played in the normal way, but if the older type of heavy pickup only is available, then what is known as a "trailer needle" must be used. These needles are supplied by us with the records if requested.

The main enemy of direct recordings, and indeed any record, is dust. Records should be kept free of dust, and replaced in their record bags when not in use. If the surface becomes very coated with dust, the best method of removing it is with cold water. Wash the disc carefully under the cold water tap and then put it on edge to drain off. Do not wipe with a fluffy rag but with a silk hand-kerchief or velvet record pad, making sure that the pad is clean first.

The records should never be stored without their bags. If they are placed one on top of another without any protection, they scratch each other on the surface and this will produce clicks in the speaker when they are played.

Having now decided to use recordings for the effects, the next thing to do is to make a list of the exact effects required, the duration of each, and the sequence that they come in. We can get more than one effect on a record, and if required put the cue numbers on the label instead of the actual name of the effect. This helps where there are a lot of effects, and the script can then be marked in numbers.

The records will be supplied in 10-inch or 12-inch discs and can be single or double sided. Single sides are usually more convenient to handle. A 10-inch record will play for three minutes and a 12-inch for four minutes. If only short effects are required, three can usually be accommodated on a 10-inch record and four on a 12-inch. This allows for run off grooves and a space between each effect.

If a long effect is required, and two turntables are available the best method is to have a  $1\frac{1}{2}$ -inch strip on two records and then the operator can fade from one turntable to another as long as is required. This is very useful for rain or wind effects where the playing time may be slightly different at each performance. It also leaves room for another short effect on each record and therefore cuts down the number of discs.

There are various types of pickup lowering devices and groove locators available to enable an operator to pick out a certain point in a record, but these are usually out of reach financially for the amateur, but groove locating can still be undertaken quite successfully by marking the record and letting the pickup down on to the mark. The best thing to mark records is a "Chinagraph" pencil. This is a fairly soft wax pencil which is used to mark glass or other smooth surfaces, and can be bought from any good stationer. They are available in a variety of colours, but the best colour is yellow as it stands out more readily in artificial light. To cue a disc by this method, start the pickup at the beginning of the record and hold the pencil upright in front of the pickup and in line with the needle with the tip of the pencil just clear of the disc surface. when the point to be cued is reached, drop the pencil downwards sharply and you will find a neat ring will have been marked on the record. If the pickup is brought to the outside edge of the ring you will find that the cue will be located. Never use greasepaint to mark a record as this is too soft and clogs the groove—causing slurred reproduction. To remove chinagraph markings from commercial discs use a silk rag with a spot of acetone on it. (Nail polish remover from the leading lady's dressing-room will do.) To remove from a direct recording use the old cold water again, as acetone will take the polish off the disc.

Having got all your recorded effects and the sound equipment set up, the next important thing to do is to set the volume level of each effect so that it sounds the right distance away and does not drown the actors' voices if they are speaking over the top of it. The only way to do this is to sit about half way down the theatre and listen and set the volume from there, but don't forget that when the hall is full, the damping effect will be greater, and it is usually necessary to increase the volume. For normal halls it is usual to allow about one third again on the volume setting when doing it in an empty hall.

This is a rough guide and you will probably know the tricks of your own particular building.

When using records for effects remember that if a click of the motor being switched on is heard through the speaker, or a pickup is dropped into the beginning of the disc on the portion that has no grooves on it, the audience will hear it and the illusion will be spoilt. As a general rule it is far better to keep the turntable revolving throughout the show. With a little practice it is very easy to remove the record with the turntable running. Do not try to do it with one hand, but use the four finger tips of each hand and with an inward and upward movement lift the disc off the table. Never play a record on top of another on the turntable. This will scratch the lower record and cause the angle of the needle in the pickup to be wrong, thus causing unnecessary wear of the record. Also it is quite likely that top record will slip when the pickup is placed on it. Never allow the pickup to run right into the run-off groove with the volume turned up. The run-off groove is silent itself, but when the pickup reaches the dead groove a "plop" will be heard at each revolution. As a general rule it is far better to put the pickup on the record and then bring the volume control up to the correct position, taking the volume control down again before lifting the pickup off the record.

One small point about the recordings for your show. It is quite likely that they will arrive by post. The company has found that the best method of sending records through the post is in specially made tins, these holding a maximum of seven records and being charged at 2/- each but returnable. Very few people seem to return them as they find it a very convenient method of keeping the records safe during the show, but if you should decide to return the empty tins make sure that they are packed solid with cardboard, otherwise they will get badly dented during the return passage, and be unfit for further use.

Another point worth noting is the fact that if you are doing a play which has been done in London, it is quite likely that the company provided the effects for the London production, so always send the name of the play with your list of effects required, and it is then quite probable that you will get exactly the same effects which were provided for the London production.

The recording studio already has several hundred effects "on the shelf" but as the duration and sequence of these varies with practically every order it means that each record turned out has to be separately made. Consequently we do not consider the prices (which incidentally include two trailer needles on request) to be excessive.

#### Sound Effects:

Single-sided 10-inch record, £1

Double-sided 10-inch record, £1 2s. 6d.

Single-sided 12-inch record, £1 2s. 6d.

Double-sided 12-inch record, £1 7s. 6d.

#### Music:

From £1 1s. depending on size of record, type of music and royalties to be paid.

THE SOCIETY FOR THEATRE RESEARCH PROGRAMME FOR WINTER 1949/50

Unfortunately lack of space prevented us from dealing with this matter in our last issue and in consequence three of the lectures in the programme have already been given. The following, however, are still to come:

Wednesday, 7th December, at 6.00, at 66 Portland Place, W.1 (by kind permission of the Royal Institute of British Architects).

DISCUSSION ON THEATRE ARCHITECTURE. Openers: Frederick Gibberd, Pierre Sonrel, Richard Southern.

Sunday, 8th January, at 7.30 at the Interval Club, 22 Dean Street. A THEORY FOR THE RECONSTRUCTION OF THE ELIZABETHAN PLAYHOUSE: C. WALTER HODGES.

Tuesday, 7th February, at 7.30 at the Interval Club, 22 Dean Street. WRITING ON THE BALLET—SOME SIDELIGHTS: CYRIL BEAUMONT.

Thursday, 9th March, at 7.30 at 29 King Street, W.C.2 (by kind permission of the Strand Electric and Engineering Co., Ltd.). THEATRE LIGHTING AND DRAMATIC EXPRESSION: GEORGE DEVINE.

Details of membership may be obtained from the Hon. Secretary at 7 Ashburnham Mansions, S.W.10.

"OLD VIC SAGA" by HARCOURT WILLIAMS, 240 pp., 124 illustrations.

Winchester Publications Ltd. 12s. 6d. net.

Mr. Harcourt Williams has a triple claim upon the gratitude of thoughtful playgoers. No one who saw his Dr. Rank, in Ibsen's A Doll's House, or his jubilee performance as the old waiter in You Never Can Tell needs reminding that he is one of our finest character actors. As a producer, he was the first to put Granville Barker's brilliant writings on Shakespeare into practice on the stage. Now, in his second book about the Old Vic, he proves himself an admirable chronicler of theatrical history.

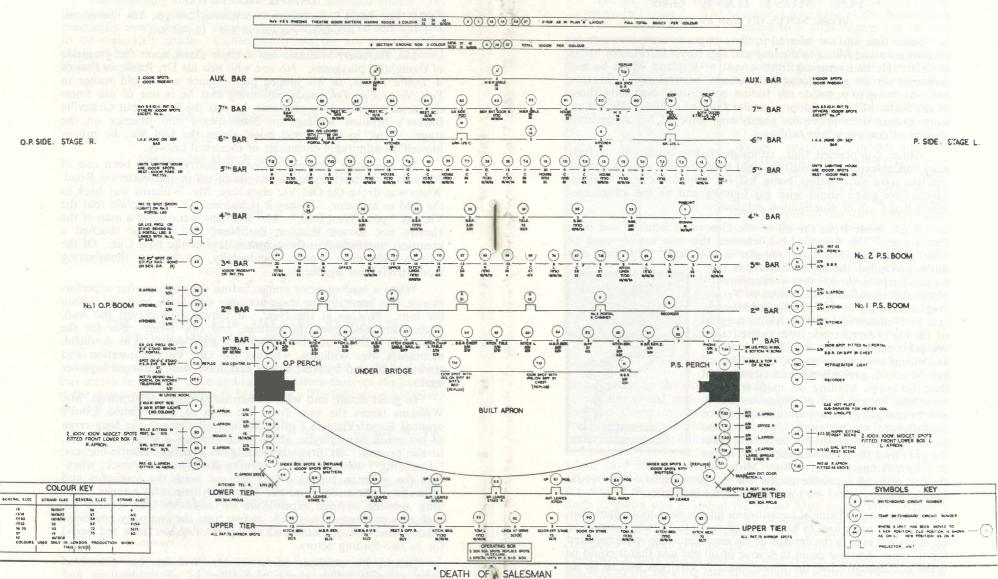
He can write with exceptional authority, having been one of Miss Baylis's most distinguished producers in the Waterloo Road. When war drove the Old Vic elsewhere, Mr. Williams was back in the fold as an actor. To-day it is fashionable to complain that the Vic has "gone West End." Mr. Williams is too good a man of the theatre not to see that, at the New, the Old Vic touched a greatness unmatched in the palmiest days of the New Cut. Of the Olivier-Richardson regime, incidentally, he has an illuminating story, trivial but significant.

When a leading actor comes before the curtain after a performance, it is generally the stage manager who holds back the curtain for him. Not so at the New. If Olivier had played the lead, Richardson held back the curtain, and vice versa. But for the friendship existing between those two great actors, it is doubtful, comments Mr. Williams, whether the Old Vic organisation and tradition, blasted by war, would ever have been gathered together again.

In great detail, and with numerous excellent illustrations, Mr. Williams traces the saga from the days of Miss Emma Cons's original Royal Victoria Coffee Music Hall through the long reign of her niece, Miss Baylis, about whom he has a wealth of stories, to the present. At first, the footlights were gas-mantle-burners. "Dimming" was achieved by turning down the main cock; whenever the gas-man turned it too far, out went the footlights and someone in the auditorium had to relight them with a taper. Not long ago the average expenditure on costumes and scenery for each new production was £15: at one time the company possessed exactly one pair of boots and one pair of shoes (with red heels) for its two leading actors.

Besides his excellent narrative, Mr. Williams has assembled some valuable tables giving particulars of all productions and artists engaged. There is a small inaccuracy in the caption on page 83. Miss Martita Hunt played the Queen to Mr. Gielgud's Hamlet, not Ophelia.

ROGER MACHELL.



NOT TO SCALE

LAYOUT OF EQUIPMENT FOR PHEONIX THEATRE LONDON. FOLLOWING PLAN A EXCEPT FOR FOH., G.ROWS & X-RAY.

COLOURS & SETTINGS A FOR PLAN'S EX-

(See Editorial Notes on page 3.)

LAYOUT PREPARED BY JOE DAYIS CHIEF ENGINEER
H.M.TEKNENT LTD

## YOU MUST HAVE GAS

SOME NOTES ON GAS IN 1820

Some time ago we referred in these pages to a report made by an Italian named Aldini to the Imperial and Royal Institute of Milan in 1820. He had returned from a visit to England where he had inspected certain gas lighting installations, particularly in theatres, and was trying to persuade the Italian authorities, especially those of the Scala, Milan, to adopt a similar form of lighting. He left no stone unturned to prove his points and some of his suggestions may be of interest to our readers.

Aldini complained that, although theatre architects in Italy were concentrating on acoustics, sight lines and decorations, Italian theatres were nevertheless being left far behind those of London which were going ahead with gas lighting and all the advantages which that form of illumination entailed.

A gas made from the oil of the Greenland whale "had been found useful" in London, but whether this was mainly used or whether coal gas was more popular is not clear. Transport and

duties precluded the use of fish oils in Italy for this purpose, though they were apparently obtainable in sufficient quantities in Venice, Naples and parts of the Adriatic and Mediterranean, Undeterred, however, Aldini suggested the use of an oil made from native Italian vegetable matter, e.g., colza, flax, sea fennel and indeed from grape stones. Vegetable oil gas, he stated, gave a better and cleaner light than did lamps burning oil made from the same base, but any form of oil gas was preferable to coal gas as the apparatus required for manufacture was so much less. In some circumstances it would be better to obtain the gas direct from the vegetable seed rather than by making it into an oil first. Moreover,

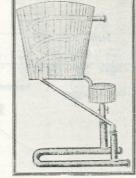


Fig. 1.

the use of local vegetable matter for the production of gas would have a healthy effect on local agricultural industries.\*

Owing to its chemical constitution oil gas gave more light than coal gas per cubic foot (a ratio of 9 or more to 5), which meant an economy not only in the amount of gas used but in the space required for storage. Another point in favour of oil gas was that it could be made continuously but the manufacture of coal gas had to be an intermittent process, as coke had to be removed from time to time and the apparatus re-charged with coal.

The method for making oil gas as seen by Aldini in London is shown in Figure 1. The horizontal iron tube at the bottom was

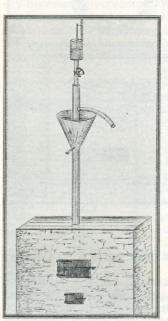


Fig. 2

heated to a high degree and oil was dropped into it from the cylindrical container above. When the oil became gassified it passed up the nearer of the two vertical tubes to the purifier, where the pipes circulated in cold water, any oil particles remaining in the gas being condensed and returned to the oil tank for a second distillation. Aldini suggested modifying this arrangement owing to the rapid deterioration of the heated metal tube. Figure 2 shows his own ideas on the matter, which consisted of a spherical iron ball placed in a stove with vertical pipes only, and fitted with measuring devices for the oil. He admits, however, that his own apparatus was subject to "blowbacks" of gas through the oil container, and why his own arrangement should have been better is not clear. He experienced, too, some difficulty in obtaining really gastight joints. He gave no clue as to his means of measuring gas but he took grave exception to the use of the word "gasometer" as a storage

tank, preferring the word reservoir.

Aldini would undoubtedly have been a first-class salesman for any Gas Company, nationalised or otherwise, for he suggested a means (Figure 3) of combining theatre heating stoves with gas-making plant. The idea, he admitted, he had seen in the house of one Clegg in London. The stove contained a curved cast iron box full of coal which gave off gas when the box became hot, the gas being taken off by tubes to a reservoir. When the coal was exhausted a door at the side of the stove was opened and a new box of coal inserted. Such a system was in use at the Royal Mint in London. Russian stoves, he stated, had pipes of air through them delivering hot air where required for central heating. But as gas itself was a good conductor of heat (apparently the water in Aldini's condensing plant was always on the point of boiling) why not run pipes of hot gas around the building and allow them to warm the place on their way to the gas lighting points? As his report was made in November it is to be presumed that he overlooks or expected his readers to overlook any discomfort which such an arrangement might cause during summer evenings. He also conveniently overlooked the fact that, unless gas lights were burning, gas would not be circulating

<sup>\*</sup> One can visualise such advertisements as "Grow more grapes for cheaper gas. Certain liquid waste products known as wines may be obtained by the cask for purely nominal sums on application to the gasworks!"

in the pipes and doing its job of heating.

Some London theatres using gas from the main suffered from lack of pressure at times, and equally when a theatre was fully lit, neighbouring shops and houses suffered. Aldini therefore recommended the manufacture and storage of gas on the actual premises of the theatre.

He recommended single burner jets for corridors and the like, but multi-jet burners with increased air circulation (Argand burners) for use on the stage. All points in the front of the house which were within reach of the public

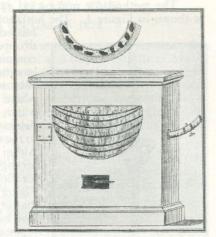


Fig. 3

should have taps which could only be operated by a special key.

The diameter of jets should be chosen to suit the location of each point and the diameter of the gas pipes should be varied according to their height in the theatre. Owing to the tendency of gas to rise, jets in the upper parts of the theatre apparently burned more brightly than those low down, which points, one would think, to there not being overmuch pressure anywhere.

Figure 4 shows the means used in an earlier building on the site of His Majesty's Theatre, London, to allow horizontal movement of gas lights on the stage, while for vertical movement a system of square tubes telescoping within one another was used. Apart from the cost, there was considerable difficulty, according to Aldini, in making a gastight joint and an oil or mercury seal was used. What is not clear is why square tubes were necessary when round ones would, one would have thought, have been so much cheaper and easier to manufacture. Aldini himself suggested a much simpler and more obvious method (Figure 5), using flexible leather tubes covered in gummed silk to make them gastight. For maximum combustion, i.e. light output, Aldini recommended a number of small jets in preference to fewer large ones. A smoky jet meant incomplete combustion and could be corrected by a reduction of the flow of gas or an increase in the amount of air admitted.

Where stage effects were concerned, Aldini suggested that oil be retained for flickering torches used in ballet, but that gas might well be used for lighting such things as altars which appeared on the stage. He felt, too, that elephants carrying torches lit by either means would be an ornament to certain productions and justified by historical precedence! When considering gas for such purposes,

he apparently had in mind portable gas lamps, each with their own gas reservoir, but the objection to any of these which he saw in England was that without any regulating device it was not long before there

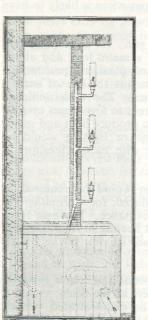


Fig. 4.

was a noticeable drop in pressure, though a Scot named Gordon had designed one to give a light equivalent to six candles for five hours (but, of course, says Aldini, with oil gas that period would have been prolonged).

Large leather bottles could be used where required on the stage to supply gas to a point independent\* of the main theatre supply.

As one might have imagined, Aldini drags in the old story of the ill effects of lighting from the



Fig. 5.

footlights. London, he says, is using gas battens as well as side lighting. Such a system had been demonstrated at the Scala, Milan, but was not apparently universal so that the very fine work of the Italian scenic artists was not being seen to best advantage. Metal or glass reflectors were unnecessary on battens—he

thought they were too costly—and he considered that painted white reflectors would be quite adequate.

With all the present-day facilities for dimming, it is difficult for us perhaps to appreciate fully the real delight which people of this time must have experienced when they found that, for the first time, dimming could be accomplished by such a simple means as turning a tap. To get the full benefit, Aldini suggested fitting all his taps with scales so that dawn, sunset, lightning and storm could follow each other quickly and at will. He also saw the emotional value of the more subtle variations in lighting intensity.

Gas, he maintained, should be used to replace many of the special effects obtained by burning resin, gunpowder, and such

<sup>\*</sup> Can Mr. Aldini be credited with visualising what we now almost accept as a matter of course—the inability of the permanent "Switchboard" to carry all the lighting equipment?

flares as Bengal lights, which, even when provided with chimneys up to the roof of the stage, apparently made the most obnoxious fumes. Moreover they were short-lived, and required stoves on the stage, with consequent fire risks. For colour effects Aldini suggested using coloured talc or glass, and, with a sudden flash of ingenuity, proposed, as an alternative, introducing colouring agents into the gas reservoirs, but one doubts if this last suggestion is likely to have been taken very seriously.

He found a completely new use for gas. He discovered that by placing gas jets near tubes about half a metre long and about three centimetres in diameter he obtained pleasant (presumably whistling) sounds, and suggested in his report the use of such a principle to produce a new musical instrument. The results achieved must, one supposes, have been quite different to any organ even to justify the suggestion, unless the gas was to produce light and music simultaneously, in which case both music or lighting would be static unless the lighting was to change with each alteration in musical chord or vice versa.

Aldini felt that improved ventilation would be required in most Italian theatres when gas was introduced, for with either oil or gas the flames went dim during a performance. The heat from coal gas jets was enough almost to cut out heating in small London theatres in winter, so oil gas should be used in view of the Italian climate.

A Commission appointed by the Imperial and Royal Institute of Milan, and directors, artists and engineers at the Scala, visited a private theatre in Aldini's house where he demonstrated various pieces of equipment, but, having himself experienced some difficulty with minor explosions, he proposed the use of two fine wire gauzes in the main gaspipe on the same principle as the Davy safety lamp to cut down risk. He apparently had trouble with leaking gaspipes, which were made of lead covered in gummed paper and fixed to the wall with plaster.

So that the shock to the public should not be too great, Aldini suggested that the Scala, Milan, should be lit by gas in three steps. Firstly the front of the house other than the auditorium should be lit, secondly the stage, and finally the auditorium proper. He suggested that in the auditorium wax coated glass candle tubes should be placed over gas jets to give the illusion of candles.

As far as the auditorium was concerned he pointed out that the ability to turn the gas off and on by means of a tap meant the end of the long and draughty business of raising and lowering the chandeliers.

H. M. C.

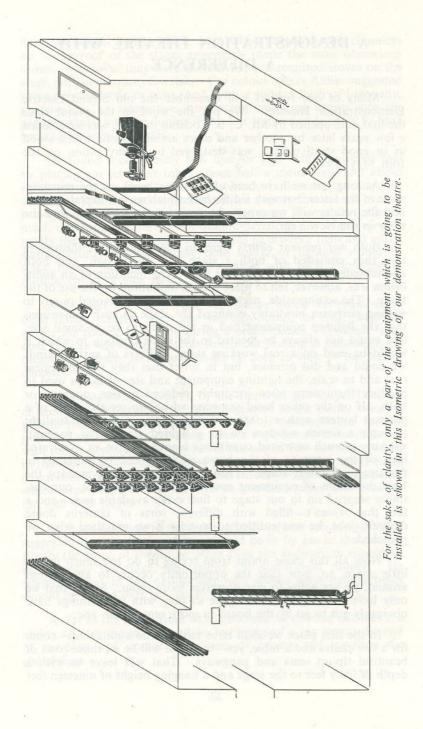
Many of our readers will remember the old Strand Electric Demonstration Theatres. We put the word in the plural since the first one, opened by Mr. C. B. Cochran in 1933, was superseded a few years later by another and more ambitious one which stood us in good stead until it was destroyed by enemy action on the 10th May, 1941.

At long last we have been able to start work on the reinstatement of the latter, but with a difference which we will explain below, and the results will, we expect, be available for inspection and use early in the New Year.

Both our pre-war efforts were, in effect, miniature theatres in that they consisted of both a stage and auditorium, and both undoubtedly served their purpose well. The inclusion of an auditorium was, however, felt to place certain limitations on the use of the stage. The setting aside, permanently, of an area devoted purely to seating purposes inevitably confined the stage to such dimensions that the lighting equipment had in the main to be of small size. and could not always be located in the same position in which it would be used on a real working stage. Effects of various kinds we could and did produce, but in order that they should appear true and to scale, the lighting equipment and size of lamps used to produce them were often inevitably reduced in size, quantity or both. If on the other hand someone wished to see the effect of a pageant lantern with a 1,000 w. lamp, casting a shaft of sunlight through a french window on to a lighted stage, that pageant, working in such restricted conditions tended to give an over-rated idea of the intensity of the beam which would be obtained in practice on a larger stage. Then again, if discussing perhaps the bare minimum of equipment necessary for a small hall, our customer stepped on to our stage to find every available inch-and a few that weren't-filled with different sorts of lanterns doing different jobs, he was entitled to wonder if we practised what we preached.

Now all this came about from trying to do too much in too little space, so, now that the opportunity occurs to alter things around, we are going to give ourselves more room. Seeing that we only have the original floor space to play with some things have obviously got to go by the board in more senses than one.

In the first place we shall have virtually no auditorium—room for a few chairs and a table, yes—but gone will be all those rows of beautiful tip-up seats and gangways. That will leave us with a depth of forty feet to the stage and a hanging height of nineteen feet



for the battens and other flown gear. Not bad, you see—almost approaching, in fact, the dimensions of a small professional stage. But hist—what about the width? Here we have had to make concession number two, as we have only a width of eighteen feet.

To make our stage only this width with the depth and height stated above would be to invite comparison with an underground railway station ("Come and see the fairy lights in our elfin grotto"!). Not being able to expand the stage we must contract our ideas. The available width will be used to represent half—the (actor's) left half of our stage. Thus as one looks upstage from the footlights one will see exactly half—our right half—of a stage of reasonable dimensions and proportions. The wall on the left will be black and blank. Theoretically in fact it just won't be there at all. For the rest, above and to the right will be seen exactly what ought to be seen on a stage, right back from the prompt corner with its cue board and so on to the cyclorama at the back. But this time everything will be to scale—complete with wings, legs, borders, dips, booms and so on. Lanterns will be placed in the right place and each will be the right size for its particular job.

"You wish to see how to remove a batten reflector. Certainly sir. Just let me lower that batten on the counterweight system."

"Your cyclorama floods can only be four feet away? Allow me to show you, Madam. I will put the equipment just that distance away and you will see the result—the actual result you will get on your own stage, Madam."

"You are uncertain whether to plump for a No. 1 Batten of compartment type or a Flood Bar, Sir? Let me show you them both, lighting them in rapid succession."

"You wish to know the space required for a disappearing footlight? Let me show you one, Madam."

The depth of the stage is, as we have said, about forty feet, a figure beyond even the comprehension of many amateur groups whose concern is so often bound up with the conflicting interest of footlights and cyclorama in close proximity. To cope with the problem of these unfortunates we will have available for use, as and when required, a stage within a stage. By unfolding hidden screens and dropping a border, we will be able in a matter of seconds to make a typical amateur-sized stage, complete with its own footlights, cyclorama and other lighting and switch gear to scale.

Finally, switchboards from the latest Electronic type down to the Junior School or portable switch and dimmer board will be represented and working, as will lanterns from 100 amp. arcs and 5 kw. scenery projectors down to 100 w. baby spots and floods. What we envisage can be seen opposite.

## THAT "INTIMATE" STAGE

There are many among our theatre planners who are convinced of the need for greater intimacy between actors and audience, an intimacy that is not considered possible while the theatre has its present form. Some there are who plead for their ideal, the marriage of auditorium and stage that was the glory of the Georgian play-house; others despise such a circumscribed compromise and demand the arena stage wholly or mainly surrounded by an auditorium.

There is an obvious dissatisfaction with the theatre of to-day and it is only too painfully true that in many theatres the lines of sight are deplorable. The cause is usually one of trying to fit the maximum number of seats in a minimum of space. But this does not seem to be the reason for demanding a change of basic plan. The intimacy that is required is claimed to be obstructed by the proscenium arch.

What is this intimacy between actor and audience? Is it not the establishment of an emotional unity between them? The competent actor finds no technical difficulty in establishing that unity from behind a proscenium arch. It is his job to do so and he is, in fact, aided by the separation of his world of "realism" from the reality of the auditorium. The audience is not deprived by separation of sharing emotional experience. The emotional response is actually heightened by remoteness; a darkened auditorium and concentration on a lighted acting area induce greater emotional sensitivity and help to suspend rational judgment. A semi-hypnotic state is voluntarily achieved and this helps to preserve the emotional unity between actor and audience. The actor's joys and suffering —his triumphs and his failures—are symbols of our own experiences of life: his remoteness in a world of illusion makes possible our own imaginative excursions into his world. Bring the actor into the arena and we may watch him with admiration, amusement or sympathy but we cannot share the experience. When he intrudes into our territory he becomes an obvious performer instead of an illusion in the phenomenal world of the stage.

Is not this desire to escape from remoteness part of an unconscious effort to restore the actor to the dominant position he lost when author, producer and designer became his essential collaborators in the theatre? Lee Simonson says, in his delightfully provocative history of theatrical design "The Scene is Set":

"The actor no longer dominates the stage because man is no longer seen as the measure of all things and the centre of his universe. There can be no single picture of the world inside the theatre because there is none outside its walls." Are not those who clamour for physical change of presentation often merely finding technical excuses for a fundamental spirituality that is lacking?

We need experiment in the theatre—lots of it. But let us beware of being dazzled by the glamour of glories past and failing to see beyond the grim realities of the present. The Georgian Theatre belonged to a world that had a seeming permanence; that had not the problems or the outlook of the people of George the Sixth; our artists must express the idiom and the manners of our time if their artistry is to be anything but a barren dilettantism. We shall not escape the future by gazing admiringly at the past.

In our modern theatre at its best the scene has emphasised its third dimension and is as much a part of presentation as are the speech and behaviour of the actor. He has become a part of a complete picture and is not merely an orator fortified by a static background. The producer and designer co-operate with the actor to interpret the author's ideas and to present them as an expression of visual and oral art. Whether a stage picture has a frame or not is not a matter of vital importance to the picture itself but the frame has its uses; it conceals the paraphernalia of production, and provides a boundary to the world of illusion.

The actor who has mastered the technique of his art and has the essential qualities of his calling will not find the proscenium a barrier to the true relationship between performer and audience. His art will meet no obstacle in proscenium frame, apron stage, footlights or orchestra pit; it will as easily reach to the man on the back row of the gallery as to his better-dressed counterpart in the stalls. The real intimacy of actor and audience is something that physical conditions will aid or hinder but cannot create.

It is quite conceivable that certain scenes or plays could best be produced on an arena stage. One has grateful recollection of a forum scene produced by Stanley Bell when a generously stepped fore-stage enabled Godfrey Tearle to present a noble front to Romans and Mancunians alike. But we must not exaggerate the virtues of any one type of stage. A maximum flexibility should be the aim.

The object of theatrical production must be to reflect the dramatic ideas of the author and interpret them to contemporary theatre-goers. If those ideas create an imperative need for arena presentation the proscenium arch will doubtless dissolve into thin air; but its dissolution will not necessarily provoke the ideas. Let us keep the horse before the cart—especially the apple cart.

### **PYROTECHNICS**

A preview of Chapter 9 of a forthcoming Strand Electric Publication.

We stock various fireworks for stage purposes and they could be briefly described as bangs, flashes and smoke. The loudness of the bangs, the brightness of the flashes and the obscurity of the smoke are difficult qualities to describe in print and even verbally the usual valuations given are "fairly loud," "quite bright," and "well, you know, average." Even said with conviction these descriptive qualifications convince only the speaker and a true knowledge comes only from experience. What can be said and never often enough is that these fireworks, no matter how reputable their make, are potentially dangerous on the stage and the need for strict safety precautions must therefore be continuously stressed. For the same reason such materials cannot be sent by passenger train nor by post and plenty of notice must therefore be given when ordering.

The following notes describe the methods of using fireworks and attempt to give you some further guide to their nature.

## SLOW BURNING SMOKE POWDER

The smoke is liberated from this powder by the application of heat which is usually provided by an "Element Smoke Box." This consists of a 750/1,000 watt element housed in a metal box and 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 10-15 seconds after the element is switched on. Experience tells us that one heaped teaspoonful of powder will, whilst heated, give off smoke for 3-4 minutes, the volume being somewhat similar to that of an average damped down bonfire in the garden. If the element is switched off the 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. The main disadvantages are the unpleasant smell of the smoke with the consequent outbreak of coughing and the tendency for it to hang about on the stage unless there is provision for a forced draught or extractor fan.

The Smoke Box must be cleaned after use to prevent corrosion of the metal.

### NAKED IGNITION SMOKE POWDER

This is another type of smoke-producing powder potentially more dangerous than the Slow Burning type. It must of course be kept dry and well away from any fire risk. As its name implies it is ignited by fire and the most usual method is to use a Terminal Flash Box. This is a small metal box carrying a piece of asbestos

#### RED AND GREEN TRANSFORMATION FIRE POWDER

These two powders, of which the first is dark brown and the second pinkish white can best be described as being like our child-hood firework flares. They can be ignited by a taper or if mixed with a little Flash Powder by a Flash Box. Once more great care must be taken in handling them to prevent accidents.

#### FLASH PAPER

This is an impregnated tissue paper which can be ignited by a cigarette or a taper. 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 a wrapper.

#### FLASH POWDER

This powder again must be kept dry and handled with extreme care. It is used with a terminal flash box as described above and the same precautions must be taken before firing it. When ignited it gives a blinding flash together with a puff of smoke and is often employed in the footlights to distract attention during the sudden appearance of a character in pantomime for example.

#### MAROONS

These provide the bangs, and there are two sizes made—medium and small—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 which is to be used must be protected with two 10 amp. fuses. The plug connecting the tank lead to the mains must then be taken out and its circuit switch put off. Thus the lead into the tank is positively safe. The maroon is then connected to the end of this lead 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 having checked that the switch is off, the plug replaced. The tank should not be near an entrance to the setting as there is a flash and a quantity of smoke when the explosion takes place, nor should it be possible for anyone to stand close to it blissfully ignorant of the imminent surprise. Whoever is responsible for firing a maroon should either be able to see that no one is endangered or to 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 their "going off."

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.

## BOOK REVIEWS

(continued)

"ESSENTIALS OF STAGE PLANNING" by Stanley Bell, Norman Marshall and Richard Southern. 111 pp. profusely illustrated by Richard Leacroft, A.R.I.B.A. Published under the auspices of the British Drama League by Frederick Muller Ltd. 21s. nett.

It was with some slight curiosity that I opened this book, for I remembered Mr. Marshall's scathing criticism of the amateur in his "The Other Theatre," and now here was a book sponsored by an amateur organisation with himself as part author. Mr. Southern I knew as an ardent researcher of the theatre, and Colonel Bell had, I understood, spent much time with E.N.S.A. An uneasy triumvirate I suspected, but when on page one I spotted the words "developmental phase," "Georgian," and "Restoration," I confess I groaned aloud. What sort of a book were **these three experts going** to give us, the historian, the author of "The Other Theatre" and the man of the E.N.S.A. and camp concert fit-up?

But I was premature, prejudiced and everything else which a reviewer should not be, for I had only to read as far as page three to find "the design of an auditorium must follow after the design of the stage. The stage is the basic factor in the design of any building in which stage performances are to be given; it is the nucleus around which the rest of the building should be organised." Here indeed were men after my own heart. Who were the authors again? Bell, the stage director of experience going back to Herbert Tree, Marshall, one of our most successful producers, and Southern, author of "Stage Setting" and "Proscenium and Sight Lines."

These men should know—they *did* know and here on page three I had proof of it. But could they put it across or was the book just to be a grown-up version of the dry-as-dust Manual of Safety Requirements?

It would be ungrateful to the authors to say Mr. Richard Leacroft's illustrations "made" this book. They are so good they would help to "make" any book, but the value of them to the present one cannot be overestimated. Even with mediocre illustrations, however, this book would be good. With Mr. Leacroft's help it is an admirable piece of work with which I have only one fault to find.

The authors have restricted themselves to what they consider to be the essentials of the subject. Consequently stage lighting is only allotted four pages at the end of the book under the misleading heading of "Some General Considerations on the Front-of-House." But the importance of providing adequate facilities for front-ofhouse stage lighting equipment is altogether inadequately dealt with. To devote only one page out of a hundred to this vital matter is, in my opinion, little short of criminal. I cannot accept the authors' plea that they are justified in this matter because other books are available on the subject of stage lighting. It is their "claim only to give something into which such furnishings can be fitted efficiently," but in this particular detail they fall short. Nevertheless in other respects their claim is well founded, and they are interesting and readable throughout. They are to be congratulated upon a very workmanlike job which will earn them the gratitude of a host of readers for many a day. Short of reproducing their index I cannot attempt to give a fair idea of the scope of this book, but it must be very nearly complete, and the essentials are the same for the village hall as the opera house. You must read this book. H.M.C.

## Signal Board de Luxe de Drury Lane

As a postscript to our earlier articles on Signal Boards, a list of the signal circuits employed in a large professional theatre might prove interesting.

Below are those used at Drury Lane. Each circuit has "warning" and "go" signals and by means of master switches, these can be pre-set so that the stage manager can signal any number of positions simultaneously.

positions simulation	cousty.	
Blackout Cloth	Hydraulic Lift 1	F.O.H. Arcs
House Tabs	Hydraulic Lift 2	O.P. Lighting Gallery
Switchboard	Electric Lift 1	P. Lighting Gallery
O.P. Flys A	Electric Lift 2	Flys P. side A
O.P. Flys B	Electric Lift 3	Flys P. side B
Festoons	Electric Lift 4	Spare
Up Stage P.	Green Room	Spare
Up Stage O.P.	Back Run	Spare
Down Stage P.	Orchestra	Spare
Down Stage O.P.		