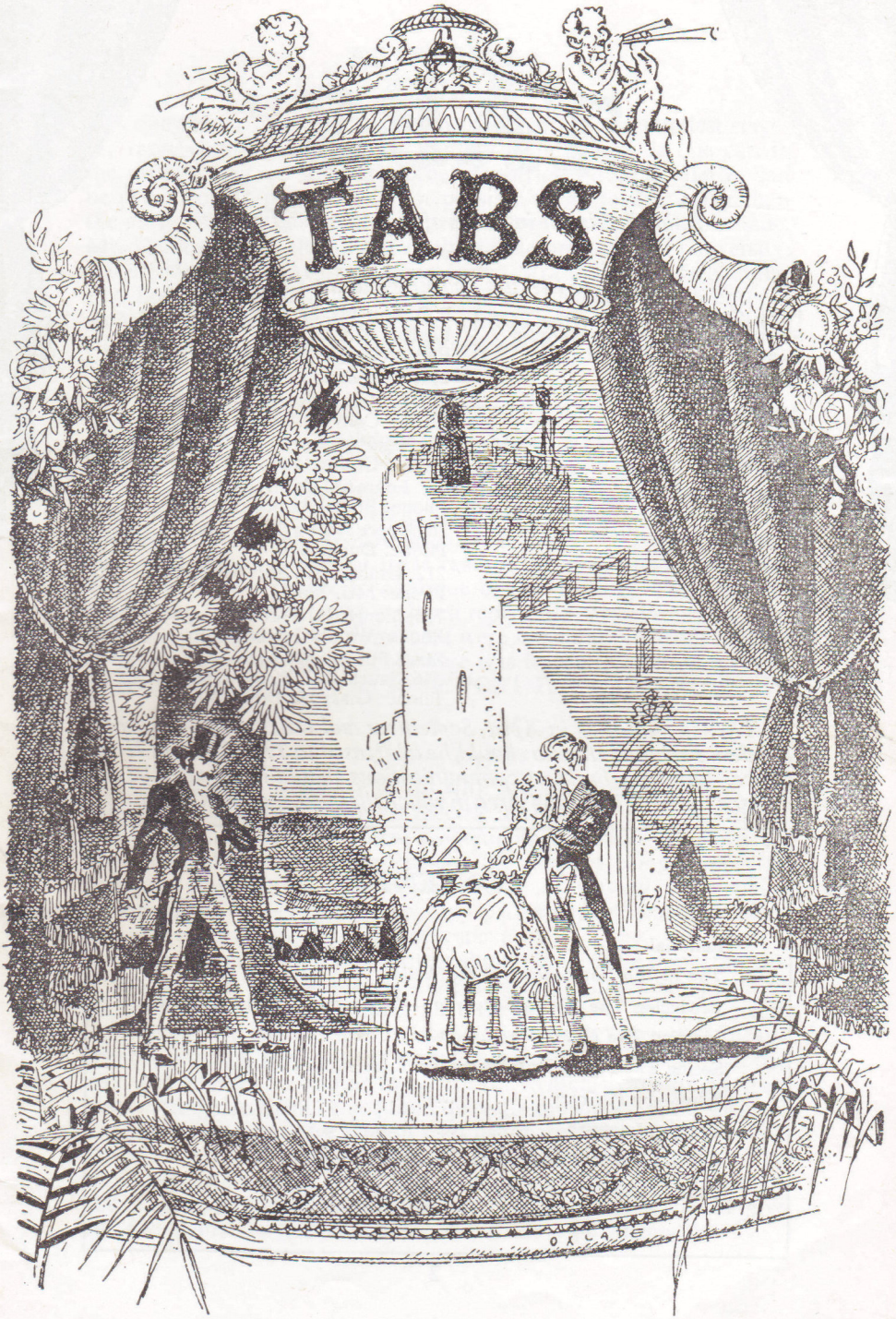

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EDITORIAL

Australia

It is our aim in TABS to range from the largest to the smallest stages for representative examples of lighting installations. If one can in the process visit, so to speak, other countries a double interest can be provided. At present it is not possible to go farther away than the antipodes and we have an example from Australia in this issue. Mr. Dennis Irving, the author of the article on Adelaide University, is a director of our Australian company—Strand Electric (Australia) Pty. Ltd. He is responsible for the technical aspects of the branch, including the works in Melbourne, and recently spent two months studying developments in England and on the Continent.

* * *

A Postal Referendum

The receipt of TABS is intended to be a pleasure—not an imposition. It is time to give our readers the chance to say whether they wish to continue on our mailing list. The free issue of TABS, as the only magazine in the world devoted to Stage Lighting and related subjects, is a happy duty which involves dispatch of over 10,000 copies all over the world. The majority of these readers are in *Great Britain*, and *these* are given a chance to continue on the mailing list by merely completing *immediately* the enclosed reply-paid card. For some time after the previous referendum there were lamentations from readers at the non-receipt of TABS. The cause was traced to their own sin of omission. Therefore may we advise **POST THE CARD NOW**:

* * *

Northern Lights

This has nothing whatever to do with aurora borealis, nor is it a tribute to the activity of Strand Electric in the North. It is the rather unusual name given to a new amateur organisation launched by Mrs. Dora Bullivant of Windermere, the purpose being to provide budding playwrights with opportunities of having their plays expertly read, criticised and possibly performed. A similar society operates successfully in the Manchester area.

It is all to the good that writers should have these opportunities of learning that a good play is something more than a story told in dialogue form. It is significant that the dramatist is known as a " playwright ", not a " playwriter ". The word " wright " means artificer or craftsman. Most of us are able to write and speak, but the skill that enables an author to transform written words into a play is something that must be acquired through knowledge of the theatre. The good driver is not a person who has merely managed to pass a driving test, but one who is blessed with skill plus road-sense. The good playwright must have literary ability plus theatre experience and stage-sense. Such organisations as Northern Lights should give him the chance to gain experience and to develop stage-sense.

J. T. Wood

H. O. Jordan

B. E. Bear

New Appointments

Mr. H. O. Jordan, who has been Works Manager since 1940 and who is in his fortieth year of service, has been appointed to fill the vacancy on the Board of Directors caused by the resignation of Mr. H. M. Cotterill.

Mr. B. E. Bear becomes Manager of what will now be known as I. E. Department (Illuminating Engineering Department). This department will deal with the preparation of all special lighting planning for theatre, television and the like.

Mr. J. T. Wood becomes Manager of the Export Department. Mr. Wood was Sales Engineer for Europe and has spent the greater part of his thirteen years with Strand Electric abroad.

* * *

Recorded Lecture No. 2

We much regret that our efforts to produce copies of this lecture for distribution have suffered a further set-back due to illness and pressure of technical work on the people concerned. To obtain suitable copies of the slides we have to make these with loving care ourselves as amateurs, no commercial process gives us the range necessary. The making of seven or eight hundred slides as a sideline demands time which cannot be spared at the moment.

The task will be completed over the summer and bookings accepted for dates from October 1st onwards. As with lecture No. 1, it is issued free, but a payment of one guinea to the Actors Orphanage is payable when registering your date.

THE FLYING DUTCHMAN AT THE WELLS

Last September we published and illustrated an article which described the enormous theatre building activity in Germany. Although both drama and opera are represented in this activity the scale of planning equipment owes more to the latter. In this country we have only one opera house—Covent Garden—in any way comparable in scale and that, as everyone will know, has had a hard job to make ends meet. Even with the latest Government grant it can hardly be called affluent. Apart from the cost of running an opera house there is much modernisation and overhaul to be done.

In the section best known to us—lighting—the control and most of the equipment dates from 1934. Incidentally this fact does not help in export trade, as of course the first thing anyone who is likely to purchase a stage lighting equipment from Britain wants to see is how we have equipped our own famous opera house. What they see there is our early experiments of years ago.

In fact, if one wishes to show a *complete* up-to-date equipment the situation is difficult. There are many theatres with a new electrical installation and remote control, but, except for the spotlights on the circle front, precious few lanterns belong to that particular stage. The lantern layout is as called for by the production at present in residence.

Most theatres abroad, even if accepting visiting companies from time to time, need a semi-permanent layout. This enables a repertory of operas to be staged in such a way that singers are given a few days rest between roles. It is obviously quite undesirable to alter completely the lighting layout and lantern positioning for each night. A large installation not all of which will be used at once, supplemented by production specials, is the answer.

When your Editor is asked, as he frequently is, what is the best example of such an up-to-date installation in London, he can reply without hesitation—Sadler's Wells Opera. There is only one other possible claimant—the Old Vic—but as that was completed in 1950 it hardly counts as up to date.

This does not mean that Sadler's Wells is lavishly equipped, it is completely equipped; 120 dimmers is a small number for an opera house, but then this is a small opera house as far as the stage is concerned, the proscenium being 30 ft. wide and the stage 30 ft. deep from there, at any rate as far as the section covered by the grid is concerned. The auditorium, with 1606 seats, is very large in proportion—the Vienna Opera only seats 1658 in the vast building illustrated on page 13 in last September TABS (Vol. 16, No. 2).

The stage lighting installation fits this stage as, indeed, the productions fit this stage. All is conceived with a clear idea of the limitations of a small stage without mechanical equipment. From these limitations comes inspiration. The Royal Opera Covent Garden is not so happy, it is one of the great opera houses of the world

(even if it is our only great opera house) and its productions, based on out-of-date and insufficient stage equipment and other facilities, have to stand comparison with those of continental houses with every facility.

There follows firstly an article by Dennis Arundell, the distinguished Producer responsible for so many productions at Sadler's Wells including *The Flying Dutchman*.

Charles Bristow, the Electrician, then describes the technical background of lighting this opera. Finally we publish a review from the point of view of a member of the audience by R. de B. McCullough. Mr. McCullough is a particularly knowledgeable member of the audience, however, because of his great experience in lighting large-scale production including opera for television.

* * *

PRODUCING *THE FLYING DUTCHMAN*

by Dennis Arundell

Nine times out of ten, stage shows are best performed in the style of their period and as intended by their authors, while making due allowance for change of theatre mechanics and present-day taste; the original spirit of the works should certainly be retained and, although experiments and new ideas should be welcomed and not ignored, they must not be allowed to dominate and become obtrusive—such, at least, is my strong considered opinion.

But conditions vary in each theatre and therefore what is easy in one may be impossible in another, so that changes—drastic changes—have to be made in presentation: a deep stage allows for a long procession (or the Dutchman's ship) to advance towards the audience, a shallow stage forbids this; a wide proscenium opening allows for an army of three hundred to face the audience impressively (or gives room for the whole of the Norwegian ship to be seen side on); a narrow opening can easily be overcrowded: wide wing-space allows for the quick stacking of scenery in scene-changes (or for a ship to sail completely out of sight); no wing-space necessitates the flying of scenery (if there is height enough) or some ingenuity of scene-mechanics such as double-sided flats.

At Sadler's Wells, where there is height, the proscenium (though wide enough for the average play or comparatively intimate operas such as *Bohème* or *Figaro*) is not naturally suitable for larger spectacles such as the *Mastersingers*, *Boris Godounov*—or *The Flying Dutchman*, and the wing-space, though fair on stage-right, is negligible on stage-left; while upstage of the last set of lines for a back-cloth there is only a few feet.

So when I was first asked by Mr. Norman Tucker to direct *The Flying Dutchman* at the Wells and he suggested it might be interesting, practicable and economical to present it on the lines of present-day Bayreuth with projected scenic effects on a bare stage

and perhaps here, too, built up like an upturned saucer, I thought it an intriguing idea: for, in spite of my firm conviction that I have already stated, the spirit and human emotional truth behind a stage-work is of far more importance than any academic reproduction of old-time conventional staging. I had already produced *Faust* successfully at the Wells some years ago in a non-naturalistic setting (apart from the Garden scene where flowers play a large part and where the quasi-naturalism of the scene clashed unconvincingly against the rest of the production, in spite of being closer to the usual Faust convention), so I saw no reason why the *Dutchman*, with its story of the condemned man wandering the seas for ever until he could find the one true woman to love him, could not also be presented non-naturalistically—especially as such treatment had the authority of Wagner's own grandsons and Wagner's own Bayreuth.

But then came the snag. The emotional and spiritual part of the story would not be hampered by projected scenery, nor perhaps would the sailors and their girl-friends bringing them food and drink —and certainly not the ghostly crew of the Dutch ship, nor indeed the scene of Senta dreaming of the legendary Dutchman, although his picture is talked of as being visible and would look odd hanging up in the middle of an unsolid scene. But the sight of girls domestically working at their realistic spinning-wheels in a vacuum, makes even Bayreuth use solid walls, however stylistically non-realistic. The storm-scenes, too, could well be done other than realistically, for although the first-act tempest is presumably a real one, that in the third act is magically only around the Dutch ship lying at anchor beside the Norwegian ship which is enjoying the calm of a moonlight night.

It was at this point I had second thoughts. The Dutch ship, of course, could be projected as it is a ghost-ship, but at the same time it must be real enough in the last act (until the magic storm begins) for the sailors and their girls to wonder why there seems nobody on board—not wonder why the ship looks unreal: in the first act too it must look somehow different, when it coasts to shore in the storm and anchors with a sickening crash, from the sleeping Norwegian ship sheltering in the same bay.

In other words, while projection can successfully portray a ghost-ship, the real ship with which it must be contrasted will not look real if it too is projected. In fact, we had to have a solid ship and a projected ship. Once that was realised, the rest followed: a solid ship means real rocks, a solid house for the Norwegian sea-captain, a real picture hanging on the wall, and indeed a ghost-ship that, when it was at anchor, could look real enough for all its strangeness to convince the sailors and others (including the audience) who saw it that it was there in fact, however weird it might seem, and though it would have to arrive and materialise, depart and vanish mysteriously.

Logic therefore took us back, in essentials, towards Wagner's

Fig. 1. Act. I. Norwegian ship moored to rocks in left foreground with storm (sea and cloud effects) projected background.

original intentions and practice.

Having decided at last to present *The Flying Dutchman* quasi-naturalistically in the style of the romantic operas of the mid-nineteenth century with theatrically real storm-clouds, wind, lanterns, sea-waves, slippery rocks, ships with rigging, spars and anchors—to say nothing of real sailors, food and drink, and a house where there could be a real picture, tables and chairs and spinning-wheels, the practical problems began—not for the second act which is set inside the Norwegian sea-captain's house and which, as there are no theatrical complications concerned, need only be referred to once again from another standpoint, but for the realistic and super-natural first and third acts.

These practical and mechanical problems were not simplified by the original aim of the Wells, with which I enthusiastically agreed as an artistic achievement and as a further challenge to ingenuity, to present the opera as Wagner always intended it, as a continuous work without any breaks between the three acts. The production was therefore planned to this end, with the intention of sliding off the solids of the first act, dropping in the second act room, and sliding on the third act after the second had been flown. For various good reasons this manner of presentation was dropped, but although the opera is now performed at the Wells in three separate acts with two

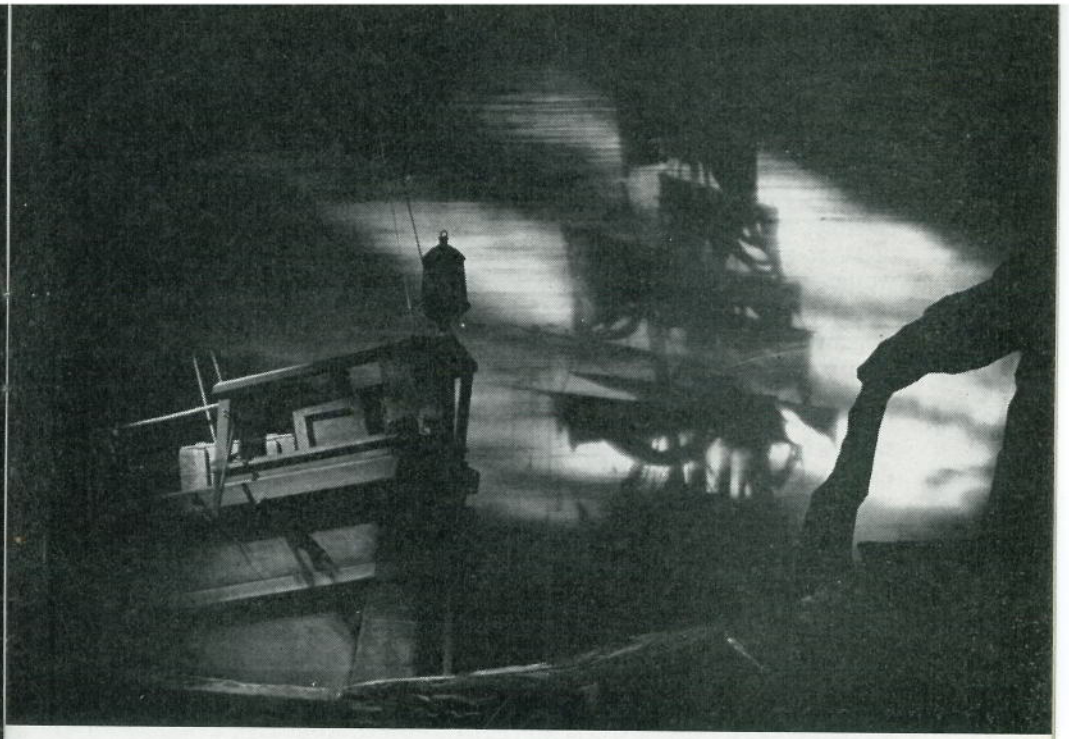
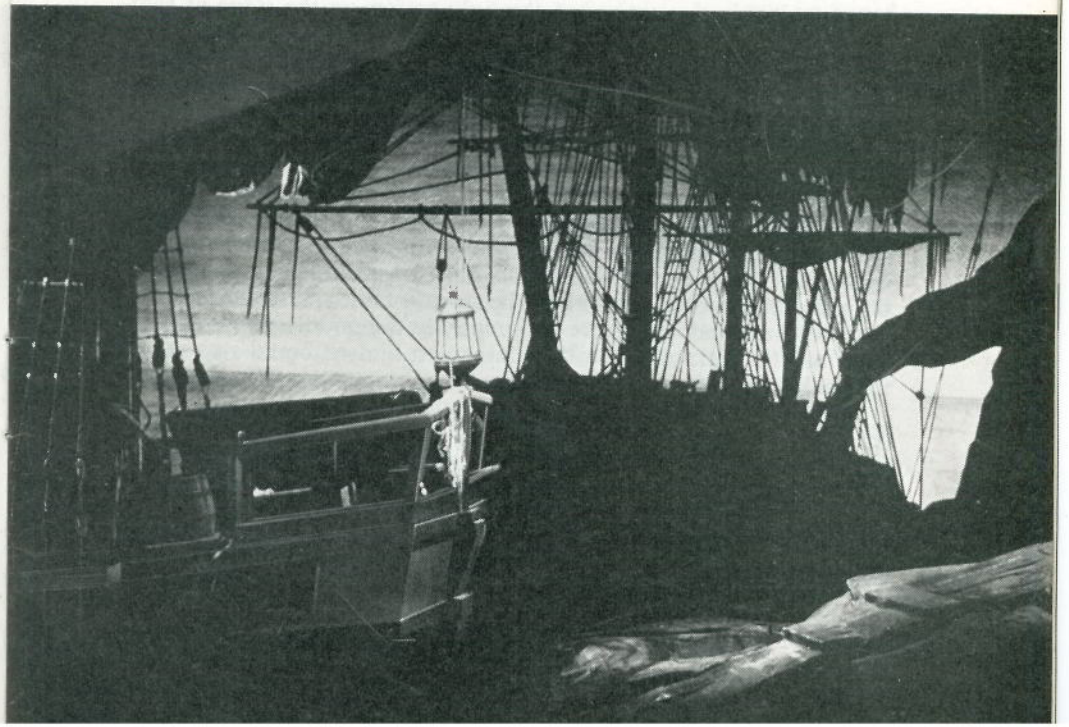


Fig. 2 (see above). Act I. As Fig 1, but with one of the projections of the approaching Dutch ship.

Fig 3 (see below). Act I. Arrival of Dutch ship, i.e. cutcloths (silhouettes) lowered in.



intervals, its construction is virtually adaptable to a continuous unbroken one-act version: the second-act might well have been differently designed if it had not had to drop in, and the lay-out of each act might well have been different had we started on the lines of three separate acts with intervals, but the mechanical problems would still have had to be solved, whatever the ground plans.

The first act is set on the rocky shore of a bay where the Norwegian ship is sheltering from the storm and to which the Dutch ship is later seen arriving. As the proscenium opening is not too wide, obviously only an end of the Norwegian ship could be shown looming up against the storm-clouds, waves and lightning with sailors hanging on for dear life, while the other end was lost in the darkness of the wings out of which, however, a light could shine upwards on to the high part of the deck as if from the quarters below. It was too expensive to make the ship rock, but the effect of movement was momentarily got by the constant movement of the sailors in the half-light of the lightning and their lanterns, and anyway the storm soon dies down after the rise of the curtain, when some sailors have jumped ashore with ropes to anchor the ship to the unevenly high rocks which, apart from being quasi-naturalistic, also serve to prevent the audience seeing that there were bare boards under the ship and under the backcloth on which the sea was projected. As a further distraction clouds formed from dry ice poured down the rocks from the wings on the other side, as it might be white cascades of foam.

As the arrival of the Dutch ship speeding through the storm is not only highly dramatic, but the only action on the stage at that moment, it could not be done by creeping on the nose of the ship from the wings opposite the Norwegian boat, apart from the fact that there is no room in the wings on that side at the Wells—especially as it should be seen coming from the distance. Accordingly, after many experiments to ensure its feasibility by Charles Bristow, the approach of the Dutch ship was done by projections, while the translation of the projected ship into a " solid " ship was done at the moment that a loud crash in the orchestra coincided with a sudden momentary darkness by dropping in two gauzes with silhouetted spars and rigging on each side of small rostrums hidden by the rocks on which the ghostly crew could be seen in faint silhouette between the two gauzes and therefore apparently in the middle of a big, deep ship, off the deck of which the Dutchman himself could step on to the rocky shore.

At the end of the act the Dutchman tells the Norwegian captain to set sail before him, as his own ship will soon overtake him: this means that the Dutch ship can remain stationary, while the Norwegian sails away. Here Wagner has written too much music for the sailing of the Norwegian—too much, that is, for the space of a small theatre: but this was solved by delaying the casting-off till just before the curtain fell on the solid ship as it started to move a few

Fig. 4. Act III. Final sunset after sinking of Dutch ship.

feet into the wings, and one sailor just had time to jump on board before the picture was cut off by the curtain. I had originally intended to see this ship arrive at the opening of the act, but experiment **proved this was too risky as it might not only fail to land at the right spot but might also push some of the " solid " rocks out of place!**

In the third act the problems are different. Both ships are stationary through the act (apart from the magic storm round only the Dutch ship which was accentuated by the slightest raising and lowering of the two Dutch ship silhouette gauzes alternately, thereby giving the impression of a ship rocking heavily) until the moment when the Dutchman has to sail away in despair. At first we planned to reverse the first act routine for the arrival of the Dutchman, but **in this instance Wagner was not allowed enough music—only some** thirty seconds, which would have made the departure ludicrous, I think—and also we could not have done a magic black-out to change from the " solid " gauze ship to projections because at that moment **the singer of the part of the girl " faithful unto death " is actually** singing her last lines and therefore had to have at least a pin-spot of light on her face which would have shown the gauze flying away. This was further complicated by the fact that she has to throw herself into the sea while the Dutch ship is sailing away, thereby causing the Dutch ship to sink suddenly. To do all this by projections

—sail away and sink in thirty seconds, while blurring the projections with even the smallest spot on the singer—was impossible, so while holding a pin-spot on the singer, all else faded to darkness (it is a magical moment, not realistic) and the gauzes flew out, making way for the final transformation—according to Wagner the forms of the Dutchman and the girl ascending into heaven. This I thought too much for a present-day audience, so I hoped to achieve—and think I did achieve, except for the Wagner purists—the same result by implication by bringing up a soft and tender sunrise.

I have only one thing to add. None of this could have been done in any way, far less successfully, without the closest co-operation between all departments—stage-staff, lighting, design and production: but because the designer, Timothy O'Brien, altered to suit practical necessities, because the stage-staff helped solve the practical problems, because the cast worked willingly on the actual rocks and in the actual lighting, and especially because Charles Bristow of the Wells worked in close conjunction with both myself and the Strand Electric, the result proved not only satisfying artistically but—as always when that is so—popular. A fine example of the result of enthusiastic and knowledgeable co-operation.

* * *

LIGHTING *THE FLYING DUTCHMAN*

by Charles Bristow

The outstanding effect in the production is the arrival of the Dutchman's ghost ship, which appears on the distant horizon and, within approximately 45 seconds, becomes moored alongside a stationary ship with its Dutch crew active on board. After several experiments, the best results were obtained by using four Pattern 52 lanterns, each fitted with a low geared optical flame effect (flames being untinted) with a specially designed slide carrier attached to the aperture. Four slides depicting the ship in silhouette, each one graduated in size, were then superimposed on to an unpainted backcloth, and by cross-fading each lantern from the smallest slide the desired motion was obtained.

The object of using untinted flame discs is that, out of focus, they created a misty movement about the ship, thus enabling the cross-fade from one lantern to another to be less noticeable. In conjunction with these, a fifth Pattern 52 fitted only with a flame disc was set to cover the entire backcloth horizontally so as to establish a mist from the onset.

Following this sequence the upstage area was then faded out to enable two ship cutouts to be dropped into position. At this moment two optical Chromotrope effects were faded in to cover the downstage area, thereby causing a momentary visual distraction without interrupting the sequence of events. Immediately following

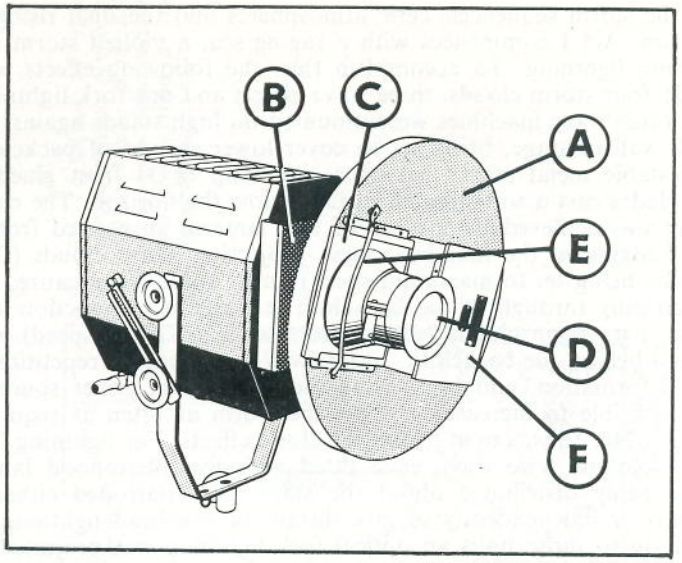


Fig. 5. Patt. 52 with effects disc and objective lens in position. The effect has been rotated by means of turntable to give downward diagonal direction to the projected effect. (A) Disc housing. (B) Turntable casting. (C) Colour (or mask) and objective runners. (D) Objective lens. (E) Objective lens retainer spring. (F) Motor housing.

this we returned to the general lighting exposing the ship as illustrated in Fig. 3.

As the position of the lanterns employed is at rather an acute angle to the backcloth, the slides had to be "angle corrected" when printed.

Having mastered the main problem, we were faced with yet one other. A backcloth featuring a painted sky and horizon was designed for Acts I and III. Had this been used the definition of the ship projections would be lost. We therefore used an unprimed cloth lightly laid-in with grey, so that by means of lighting, we could obtain an horizon and colour. Now, in the upstage area so much activity would be taking place moving boat trucks, etc., that the use of ground rows or floods was quite out of the question. There remained but one alternative—backlighting—and our backcloth, being a translucent finely woven cotton duck, proved ideal. A disused straight border was hung upstage of the backcloth enabling the light from a six-way flood to be masked down to sea area of backcloth. The arrangement was then reversed for the sky, this time using four sections of ground row and a 2 ft. 6 in. scenic row (see plan, Fig. 7). With the mixing of contrasting colours, ground row and floods being wired in three circuits, the backcloth began to take on a realistic appearance.

Other scenes in the opera which involve the use of optical effects

are the storm sequences, eerie atmospheres and the final rising of the sun. Act I commences with a raging sea, a violent storm and flashing lightning. To accomplish this, the following effects were used: four storm clouds, three wave effects and one fork lightning. The three wave machines were mounted on high stands against the back wall of stage, being set to cover lower section of backcloth. **Adjustable metal masks having a thin strip of 31 frost glued** to the blades cast a softening effect just below the horizon. The cloud effect was achieved by the use of two lanterns suspended from a bar hanging in the first bay, these projecting storm clouds (their motors being set to maximum speed) on to a mid-stage gauze, and penetrating through to the backcloth as well. In conjunction with these, two storm clouds (with motors set at a slower speed) were placed behind the backcloth. In this way we avoided a repetition of cloud formation, and by varying the intensity of either source it was possible to increase or abate the storm as often as required. Colour No. 56 was used to tint the cloud effects. For lightning four short battens were used, each fitted with five photoflood lamps, these being distributed about the stage and controlled either in groups or independently to give distant or overhead lightning. In addition to those units an optical fork lightning was projected on the backcloth. By using a selection of slides, and moving the direction slightly from left to right after each flash, a variety of pattern was obtained.

Three less elaborate effects seem worth mentioning. A black proscenium gauze was used to give a haziness to the first scene and to emphasise this, two tubular ripples (Fig. 6) were laid in the footlights. By setting them tilted downwards at a slow speed to cover the lower part of the gauze an excellent ground mist was produced. During the last act a few moments occur that require the Dutchman's ship to be surrounded by a ghostly atmosphere. A chromotrope directed on to the mid-stage gauze from the centre of the effect bar **gave the appearance of a strange magical light radiating from** the ship.

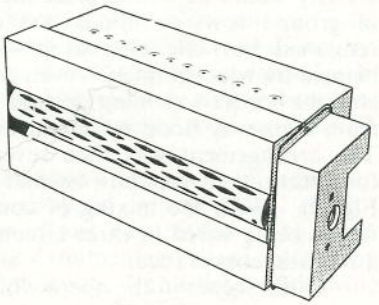
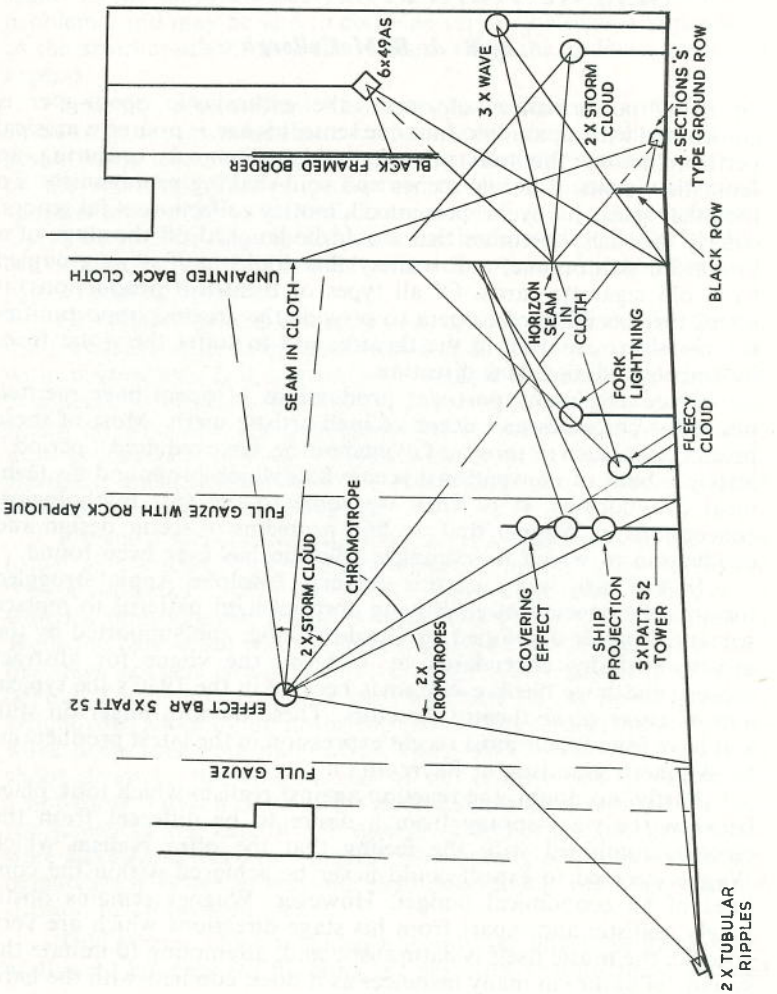


Fig. 6. Motor-driven tubular ripple effect. This requires no lens, the light from the lamp being intercepted and distorted by a cutout drum—a kind of shadowgraph.

Fig. 7. Section of stage showing positions of effects. Tubular ripples on the left are in the footlights and the grid area extends to the unpainted backcloth.



From that point, during its last act, the opera slowly builds to its climax, until in a sudden blackout the Dutch ship vanishes, and from the darkness the sun slowly rises above the horizon after the violent storm. A gradual build of warm light behind the cloth plus a single fleecy cloud effect (tinted No. 53) moving slowly across the sky, set a tranquil mood for the final moments of the opera.

* * *

SEEING *THE FLYING DUTCHMAN*

by R. de B. McCullough

At many performances of opera, the enthusiastic opera-goer is confronted with a paradox. Into one sense, his ear, is poured a musical performance of fabulous intensity and excitement, conjuring up fantastic visions of heroic scenes and soul-shaking protagonists. To the other sense, his eye, is presented a motley collection of fat tenors, elderly heroines, costumes that would be laughed off the stage of a provincial pantomime, and scenery that looks as if it were copied from old cigarette cards. Of all types of theatrical productions, it seems the special fate of opera to provide the greatest opportunities for visual presentation in the theatre, and to suffer the worst from incompetent design and direction.

Of course, many post-war productions of opera have merited praise for costumes and décor of high artistic merit. Most of these productions, such as those at Glyndebourne, have required " period " interiors built of conventional scenic flats which propound no technical conundrums. It is when we come to the vast mythological conceptions of Wagner that we find problems of scenic design and production to which no complete solution has ever been found.

In the early years of this century, Adolphe Appia struggled towards the concept of employing abstract light patterns to replace scenery. Further developed by Gordon Craig, and supported by the artistic attitudes engendered by Cubism, the vogue for abstract scenery and huge bleak cycloramas became in the 1930's the typical aim of *avant garde* theatre directors. These theories linger on still, and have found their most recent expression in the latest productions by Wagner's grandson at Bayreuth.

Partly, no doubt, the reaction against realism which took place between the wars sprang from a desire to be different from the cinema, combined with the feeling that the ultra realism which Wagner seemed to expect could never be achieved within the confines of an economical budget. However, Wagner remains obstinately realistic and, apart from his stage directions which are very specific, the music itself is naturalistic and, attempting to imitate the sounds of nature in many instances as it does, conflicts with the hard

geometrical decor which is all that the Gordon Craig school can offer. The present-day producer of Wagner is thus in something of a dilemma. For years the musical pundits have been decrying theatrical effects as childish gimmicks. The ultimate result produced by this line of criticism is a concert performance in front of black curtains. This, in these modern days when scenic spectacle is a commonplace of the cinema, will not satisfy the average opera-goer. It would not have satisfied Wagner who, like Cecil B. DeMille, wanted to see everything he imagined actually happening on the stage in full view.

The recent production of *The Flying Dutchman* at Sadler's Wells seems to me to be an extremely clever solution of these manifold problems, and may be said to combine very ingeniously the practices of the abstract school with the realism which the audience naturally expects.

Basically, the problem was to suggest within the confines of a small stage area a naturalistic harbour scene with a full-size sailing vessel riding at anchor—and then the sinister approach and arrival of the towering ghost ship. Merely to put the scene into words suggests as a basic need the full resources of some vast continental Opera House. On the contrary, the methods used at Sadler's Wells are simple. The secret is in a clever use of optical projectors for most of the special effects.

Of course, optical projectors have been available for theatre use for many years. Like other technical devices, they must be used with imagination. It is a mistake to imagine that this Sadler's Wells production is merely a triumph of technical know-how. The results, which all who saw the production have agreed were remarkable, were produced by a close collaboration between Producer, Scenic Designer, and Lighting Director, which made the technical gadgets perform an artistic tour de force.

Projected scenery demands the use of a cyclorama or sky cloth to act as a screen. In film and television studios, many scenes are " back projected ", with the aid of a large translucent screen on to which a photographic image is thrown from the rear. At Sadler's Wells the back-cloth was similarly arranged clear of the rear wall of the stage so that cloud and wave projectors could be used from behind. The cloud projectors were mounted on the floor, behind a groundrow, shooting up at the top part of the screen; while the sea-wave projectors were hung at an angle of 45° behind a border to shoot down to the bottom half of the screen; thus avoiding the " hot-spots " which occur if the audience can look straight through the screen at the lens of a projector. The border and groundrow were cleverly adjusted to " nigger " the lighting and produce a sharp demarcation between sea and sky, thus giving the very effective illusion of an horizon line.

This set-up, which included not only the effects projectors but additional lanterns for flooding the sky with various tints, enabled

the back-cloth to be changed continually as the opera progressed, as a visual counterpoint to the mood of the music—condensing into a wild, stormy night as the action rose to a crescendo and melting to a deep heavenly blue in the more lyrical passages.

The next problem was the arrival of the ghost ship. The great power and emotional intensity of the music demands something very impressive on the stage at this point. This moment, is after all, the key to the whole story of *The Flying Dutchman*—and pushing a cardboard pirates' vessel on from the side of the stage will not do.

Again a clever use of scene projectors provided part of the answer. The foreground or acting area of the scene consists of part of a ship at anchor in a rocky cove, and this part of the scene was carried out realistically in three dimensions. Behind the ship there was plenty of space on the floor to hide lighting equipment, and a battery of special effects lanterns was mounted here to front project pictures of a fully rigged sailing ship on to the seascape on the back-cloth. A series of pictures of successive enlargement were used, so that by switching on each projector in turn, an impressive appearance was achieved as of the ghost vessel approaching with sinister speed culminating in a terrifying thunder-clap and black-out. At this moment a huge cut-out silhouette of the Dutchman's ship was lowered into position from the flies, so that when the lighting was again faded up, the vessel appeared to be anchored by the shore. Needless to say, this technical description does less than justice to the stage presentation, which appeared to the audience as a smooth transition from a distant glimpse in the storm to an awe inspiring close-up of the enormous black vessel overwhelming the stage.

The silhouette, a complicated pattern of masts and rigging, was itself made in two parts, one in front of the other, to give an impression of solidity and perspective. By moving the front and back sections up and down, a slight rocking motion could be imparted, as though the ship were riding on the waves.

The lighting of the foreground and acting area followed conventional lines, and calls for no special comment, except for the use of some additional wave projectors covering the scene at each side of the stage. The motivation for this effect was reflection of light from the water on to the rocky walls of the cove; but to the audience the faintly flickering movement gave an interesting impression of continuity and width, as though the scene extended indefinitely beyond the confines of the proscenium frame.

A small criticism of this foreground lighting is one which I feel constantly compelled to make about many productions in the professional theatre. Lamplight is *not* amber-coloured, nor is moonlight blue. Both are, in fact, a pale lemon tint with deep violet shadows. One could wish that a more adventurous use of colour filters would break down these old-fashioned conventions.

One final effect remains to be mentioned—the " St. Elmo's

Fire ". Once again front-projection was used, this time over the whole of the acting area, so that the Dutchman was surrounded by a faintly pulsating green aurora. The first time the effect appeared, it was admirable, but a little later in the same scene it recurred with, I think, disappointing results. Once we got used to the trick, the feeling of emotional justification vanished. I think we can learn from this that an element of surprise is needed with most technical effects to produce the right result on the mind of the audience—they must not have time to think how it is done!

In the end, it is the performance that matters. As the purists say, it is quite true that, sometimes, a more intense and satisfying performance can be obtained from skilled actors in a bare rehearsal room without props than in the most elaborate scenic setting. This **is not, however, a plea for bare stages and imaginary** furniture. It is a reminder that lighting, scenery, and machinery must all reinforce the actor's performance, and never detract from it. A single mis-timed lighting cue, a single laughable effect, and the dramatic fabric is destroyed. I remember once seeing a performance of *The Flying Dutchman* in which Senta's spinning **wheel refused** to start—how heartlessly the audience laughed when they should have been gripped with romantic excitement by the music.

Fig. 8. Lighting control console on perch at Sadler's Wells. Switch panel on top left of console is for control of remote colour change spotlights in the auditorium.

As a professional technician, the special feature of the Sadler's Wells production which interested me most was the basic simplicity of the equipment. To hire twenty effects projectors is a modest requirement that would scarcely over-tax a large amateur production, but to use these devices in such a way as to solve some of the most difficult problems of Wagnerian presentation, with such considerable artistic integrity, is a professional achievement that merits the highest praise.

* * *

WHY?

by P. Corry

If Napoleon had lived today might he not have amended his famous mis-statement and asserted (with about the same amount of justification), that the English are a nation of amateurs?

In spite of the appalling brashness of modern materialism, the term " professional " is still rather suspect in this country. Many leading sports organisations rigorously exclude professionalism, and it is not solely, or even primarily, the natural reluctance to pay tax that encourages the spread of what is known as " shamateurism ". Although our semi-egalitarian society will not any longer tolerate such class distinction between Gent and Player as C. B. H. R. L. S. Physhe-Phry and Ramsbottom (B.) . . . they are uniformly Leonards and Alecs and Peters nowadays . . . yet there still lingers the suspicion that it isn't quite cricket for a professional to assume a captain's authority. Football is fairly free of inhibitions of that sort; but that is frankly referred to now as the football industry. Nevertheless, football has prolific " do it yourself " activity. In sport, professionalism grows directly from amateurism. Contrariwise, in the theatre, amateurism has grown as professionalism has quantitatively declined. Because so many millions were deprived of their professional theatre, vigorous minorities of the people of this country, notably in the provinces, began to make their own. It is true that the theatre did originally begin with the amateur, and the amateur theatre still provides a modest quota of recruits to the profession. But the tendency, now, is for the profession to rely almost exclusively on the drama schools for its recruits. Whether that is good or bad is debatable and for present purposes, irrelevant.

The fact is that theatrical amateur activity is a kind of social disease and one that is highly infectious. All kinds of people, who appear outwardly to be perfectly sane and sensible citizens, become involved in the crazy business of providing theatrical entertainment for themselves and for such members of their local communities as may be induced to forsake the telly for a few hours.

The amateur theatre has scant regard for normal social values.

The bank manager, who strikes terror into the hearts of suppliants for overdrafts, will meekly allow himself to be bullied and chivvied by a producer whose shabby duffel coat proclaims his state of chronic impecuniosity. The distinguished-looking architect whose clients regard him with reverent awe will don a scene-shifter's torn and scruffy overall and, when he fails to throw a cleat line with requisite dexterity, allow himself to be roundly cursed by a stage manager, who may well be a hosiery salesman at a local store. Of course, there are occasions when ability to do the job is not allowed to prevail. There may be some sycophantic deference to the passé dowager who is a frightful actress but has a large circle of friends who can be dragooned into buying seats. In the main, however, skill and artistry will usually provoke respect in the serious business of performing and staging a show. There may be a little more normal snobbery in the administrative section of the organisation, but there is no less blind devotion and self sacrifice.

" . . . *prolific do-it-yourself activity.*"

In the case of those who regard themselves as actors (sometimes, in spite of all the evidence they insist on giving to the contrary), there is some understandable reward. It satisfies that most universal of all the weaknesses, the desire to indulge in exhibitionism. They may strut and fret their floodlit hour upon the stage and gain some emotional release. They glow with exhilaration when they successfully provoke the laughter and tears and applause of the populace. But to keep them on the stage there is an army of enthusiasts who labour long and hard, unhonoured and unsung. There are those who read innumerable plays in order to find a few that are the sort that they themselves want, and they must then persuade a committee that they are the sort that their audiences want—only to find, of course, that they are violently criticised for not choosing something quite different. There are the producers, who must spend long hours preparing the plays for rehearsal, consulting with stage staff and wardrobe com-

" . . . *proclaims his state of chronic impecuniosity.*"

mittees and then expending blood and sweat, and probably provoking tears from the leading lady, during exhausting attempts to induce a cast to create credible theatrical characters instead of merely behaving as their ineffective selves, reciting lines they have imperfectly learned. There are the faithful few stalwarts who spend night after night struggling with flats and rostrums and steps and backings that are the wrong sizes and shapes, and are always stored in the most inacessible places and must invariably be carried up several flights of stairs having the most awkward of bends. There is the prompter who attends interminable rehearsals, who, during the show, must sit in the draughty corner, being barged into by stage hands and afterwards cursed for being too soon or too late or too soft or too loud, when prompting the bloke who is notoriously bad on his lines. There is the " props ", who must scour the town in a desperate search for furniture

" . . . *skill and artistry will provoke respect.*"

that nobody wants to supply and that is bound to be of the wrong size and period anyhow. There are the people who struggle up and down ladders, adjusting spots that sizzle the fingers, changing lamps and colours, doing odd bits of magic with wire and string, and who must suffer the frenzied expostulations of the producer who wants an effect which the stage board is incapable of producing. There are wardrobe mistresses who work their fingers to the bone and their tempers to the frayed edges in their despairing attempts to minimise the extent to which vital statistics have slipped. There are those who sell tickets and others who are vendors of programmes and ice cream. They also serve who brew the tea and do all the other numerous jobs that must be done to keep the Little Theatre ticking.

" . . . *of the wrong size and period.*"

All these people are not only in constant attendance, working harder for nothing than ever they do for a pay packet, but they actually pay for the privilege of doing so.

Why do they do it?

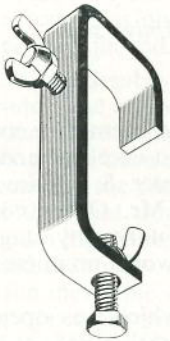
Some of us, without hope of reward or thanks, write reams, or lecture at great length and frequency, for the benefit of amateur theatre people, who read or listen attentively without ever attempting to put into practice the precepts that are propounded. But if we happen to write or say something that doesn't appear to be identical with something we may have written or said twenty years ago, we are sternly accused of misleading our trusting public. We attend conferences of Guilds, Associations, Councils and Federations, at great inconvenience and considerable expense, in order to say the things we have said for years (and listen to others also saying them) and to pass innocuous resolutions that are immediately forgotten.

Why DO we do it?

And there doesn't really seem to be any very good reason why I should be writing this, does there?

* * *

HANGING LANTERNS



As is by now well known the vast majority of lanterns are used hanging whereas a couple of decades ago, long before the small spotlight era, at least 50% of the then small number of individual lanterns were used on stands. A re-design of the English traditional " L " clamp and threaded fork pin method of suspension has long been overdue.

In future all Strand lanterns up to and including 500 watts will be supplied with a $\frac{3}{8}$-in. Whitworth bolt and above this size with a $\frac{1}{2}$-in. bolt. A few specially bulky or heavy lanterns only being excluded.

The bolt is for use direct or with the new hook clamp (see drawing) ref. 483 when hanging from bars and the new spigot adaptor, ref. 484 ($\frac{3}{8}$ in.) and ref. 487 ($\frac{1}{2}$ in.), on those occasions when a telescopic stand is needed.

The new hook clamp will be found infinitely more convenient than the old " L " clamp with its saddle fixing to the bar and *all* lantern adjustments can be achieved by hand instead of a mixture of hand and spanner as before.

The Union Hall, University of Adelaide.

A VOICE FROM "DOWN UNDER"

A description of the new stage at Adelaide University.

by D. C. Irving

Those of our readers who are endowed with good memories combined with regular deliveries of TABS, will recall an excellent article on "Australasian Impressions" written by Lester S. Quare in September, 1952. In his concluding paragraph, Mr. Quare commented on seeing two well-equipped Australian university stages. On one of these, by the way, was performed the world première of *Summer of the 17th Doll.*

This article concerns a third such building which was opened (on time, to the amazement of many) on August 8th, 1958, at the University of Adelaide, South Australia. Since then it has been used continuously for theatrical performances of all kinds and is giving a tremendous boost to both amateur and professional drama in Adelaide. This is especially welcome owing to the prospect of television in South Australia next year.

Due to the fact that the intention was to use the establishment for University functions, other than theatrical performances, it has been named the "Union Hall", which in the writer's opinion is a pity, because it gives a false impression—conjuring up as it does a

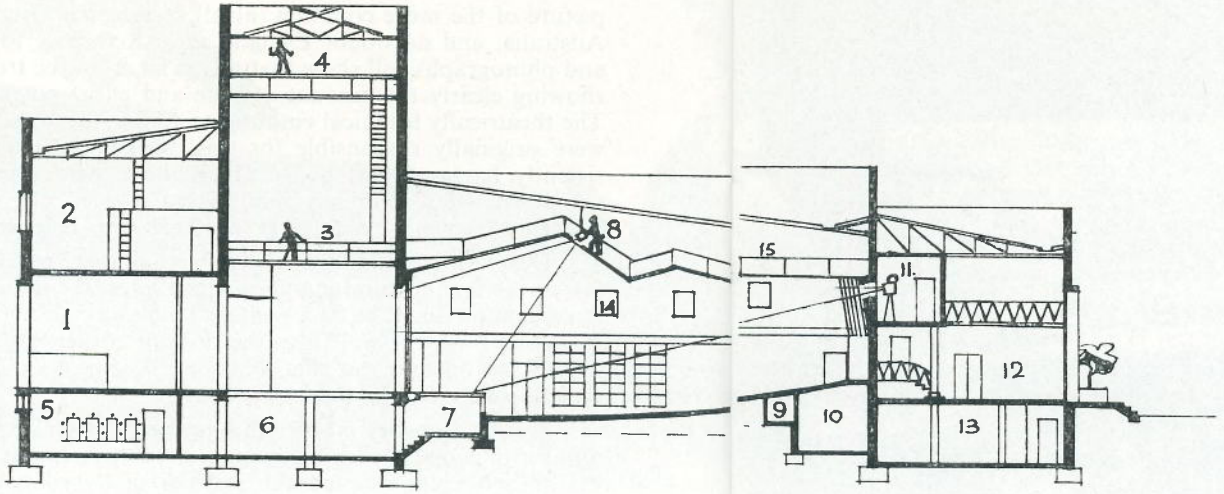
picture of the more common (alas!) rectangular structure found in Australia, and no doubt England also. Reference to the drawings and photographs will show that this is far from the truth, the layout showing clearly the amount of time and effort put into its design. The theatrically technical enthusiasts among the University students were originally responsible for this, backed up later by the consistently harassed and badgered architect, who surely must have wondered what seemingly mad world it was into which he was suddenly thrown ("Why 42 ft. height above stage anyway?").

Despite various differences in opinion, there remain remarkably few of the architectural inanities which infest the average small hall. An exception might be the two 10 ft. long rolled steel joists remaining sprouting from the wall over the prompt corner until twelve hours before the opening, so that when we "came to our senses" the switchboard could be put in its "proper place".

Seating capacity is 499; this is apparently a non-inflammable number of people, because any more than this requires the regulation use of a fire curtain and the services of a professional fireman; these were regarded by the University as avoidable expense, hence the low figure. Because of such low capacity it was thought unnecessary to incorporate a gallery and the ceiling was kept low—as was the height of the proscenium opening. The floor of the auditorium is raked by approximately 4 ft. over its length of 60 ft.; gradients vary from flat at the front to 1 in 12 at the back. The width of the auditorium varies from 45 ft. at the front to 65 ft. at the back; the seating is arranged so that a person sitting at the end of a row loses only 30 in. of the cyclorama when the full width of stage is employed.

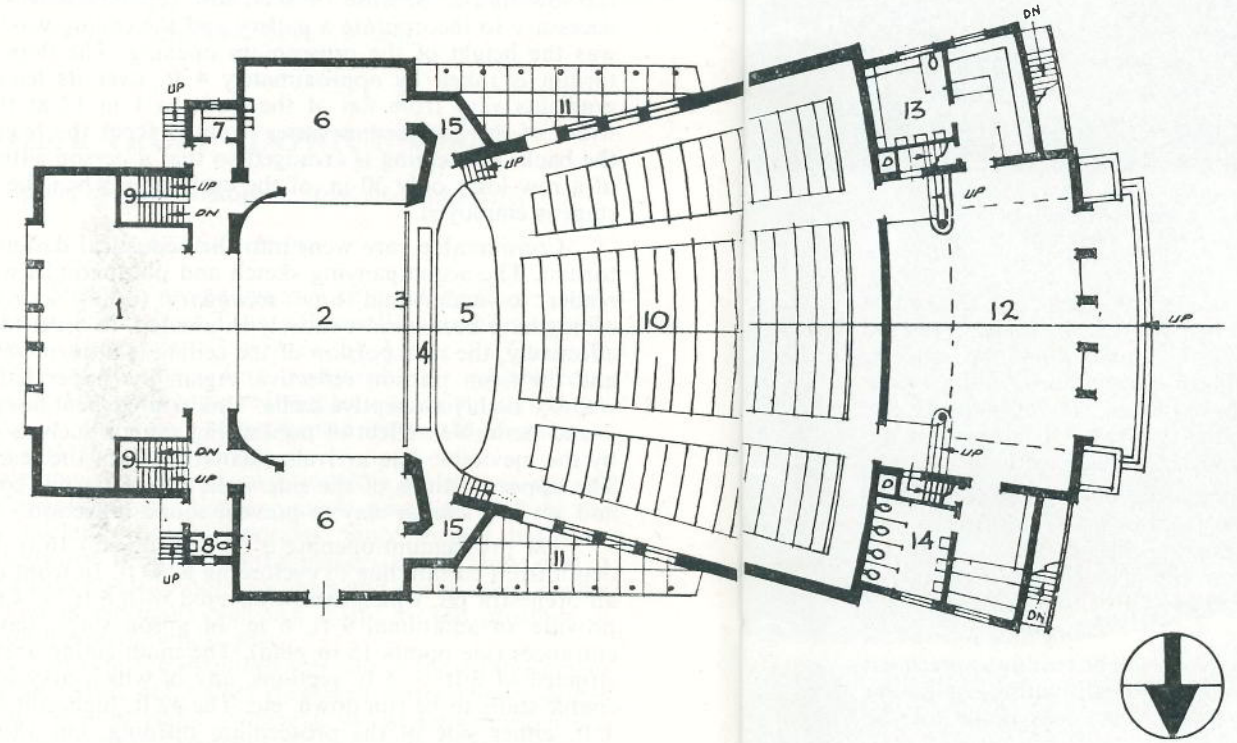
Considerable care went into the acoustical design of the auditorium. The accompanying sketch and photographs will enable the reader to understand how secondary (echo) sources from the ceiling have been almost entirely eliminated. In order to do this more effectively, the rear portion of the ceiling is absorptive in character, and the front portion reflective. Again the upper half of the rear wall is a highly absorptive baffle. This arrangement has the incidental —and desirable—effect of minimising sounds such as are produced by the inevitable late arrivals emanating from the rear of the Hall. The upper portions of the side walls are of porous concrete block, and act in a similar way to prevent sound reflection.

The proscenium opening is 38 ft. wide and 16 ft. high, and the depth from curtain line to cyclorama is 30 ft. In front of the stage is an orchestra pit, which can be covered with 6 ft. × 4 ft. sections to provide an additional 9 ft. 6 in. of apron stage, having excellent entrances (see points 15 in plan). The main acting area is also constructed of 6 ft. × 4 ft. sections, any of which may be removed to enable stairs to be run down, etc. The 42 ft. high grid extends about 4 ft. either side of the proscenium opening, but 18-ft. high wing space extends for 20 ft. either side of the stage. The space marked



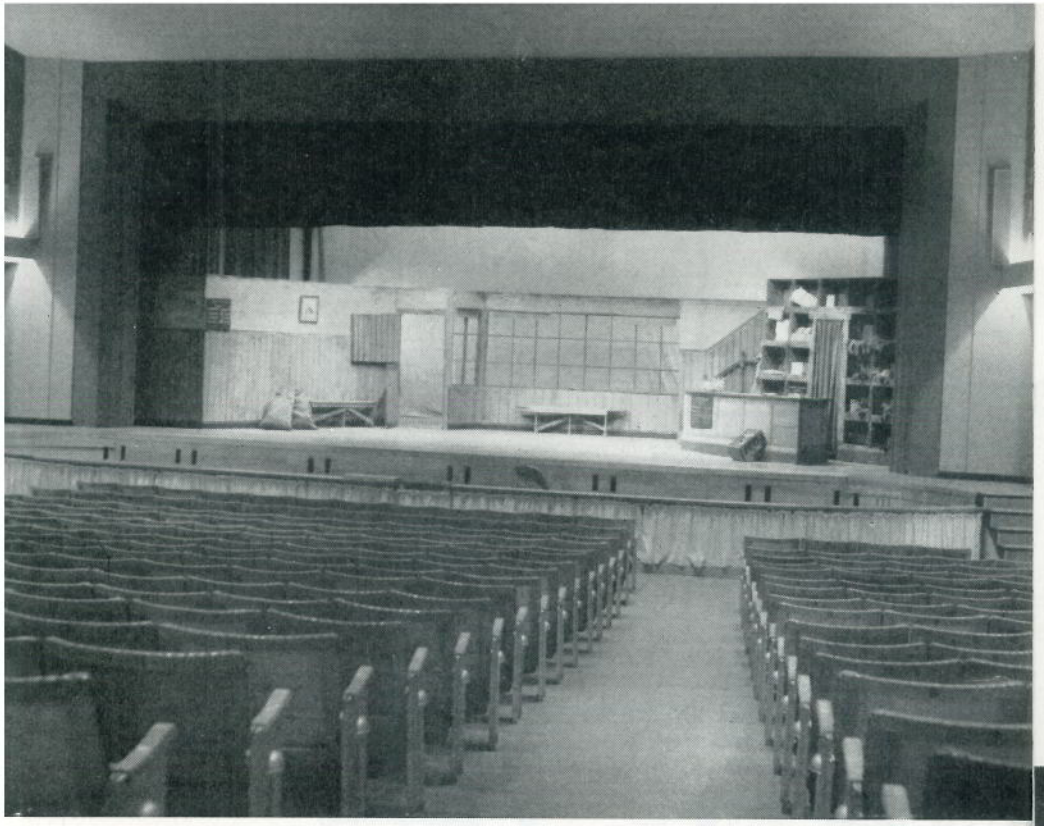
SECTION

1. Rear Stage
2. Workshop or R
3. Fly Gallery
4. Grid
5. Dressing Rooms
6. Under Stage
7. Orchestral Pit
8. Spotlight Gallery
9. Ventilation Duct
10. Ventilation Machine Room
11. Bio-Box
12. Foyer
13. Students' Locker Room
14. Vents
15. Electricians' Walk.



PLAN

1. Rear Stage
2. Stage (Trapped)
3. Carpet Strip
4. Footlight Covers
5. Removable Forestage over Orchestral Pit
6. Stage Side Wings
7. Kitchen
8. Toilet
9. Stairs to Basement Dressing Rooms and Toilets and Workshops over.
10. Auditorium, 499 Seats
11. Covered Terraces
12. Foyer
13. Male Toilet and Cloak
14. Female Toilet and Cloak
15. Entry to Forestage



The stage of the Hall, with a set for Britten's Albert Herring *in process of construction. The orchestra pit is normally covered by a forestage.*

" 1 " in the drawings is intended as a scene dock, but the centre section of the cyclorama (not shown in the drawings) may be removed to give a total depth of 72 ft. Ample workshop space is provided above the scene dock, with an electric hoist, and a broad corridor leads from this to the fly galleries. These galleries are connected across the stage by a bridge situated 3 ft. upstage of the curtain, from the centre of which rises a *stairway* to the grid.

From the prompt side fly gallery a fire door gives access to a catwalk in the ceiling leading to the front-of-house control rooms, passing the front-of-house spots on the way. These latter are fourteen in number, approximately 30 ft. from the proscenium, the lanterns used being mainly Patt. 23's, although 143's are found to be excellent for apron lighting.

Due to financial considerations which will be readily appreciated by our readers, only part of the total envisaged lighting equipment is installed at the time of writing, but provision is made for the following:

F.O.H. Fourteen circuits (as above).
No. 1 Bar. 3 circuits each of 2 Patt. 60 m. 500-watt floods 10 circuits for spots, either 23's or 123's.
No. 2 Bar. 3 flood circuits as above.
8 spot circuits as above.
No. 3 Bar. 3 flood circuits only as above.
Cyc. Top Bar. 6 flood circuits—employing 8 Patt. 60 500-watt floods each half, connected as 2 pairs and one group of 4, for colour-mixing purposes.
Cyc. Groundrow. 36 ft. of " S " footlight.

Provision is also made for 36 ft. of footlight which can disappear into a well, and the following additional outlets are provided—2 on each fly gallery, 2 perch each side, 6 outlets in dips and traps each side, 3 cyclorama outlets each side, and a number of outlets in the various rooms along the rear wall of the auditorium, i.e. projection box, electricians' room, etc.

One interesting feature is that all the outlets for music stands in the orchestra pit are controlled from the stage switchboard, so that they can be switched off or dimmed (in a black-out, for instance).

All this magnificent array is controlled from a front-of-house position by means of a 72-circuit Strand Saturable Reactor Board, the dimmer racks being situated under the prompt side-wing space,

The acoustic treatment of walls and ceiling is seen in this photograph of the auditorium.

on the same level as the ample dressing rooms under the rear stage. The equivalent room on OP side is used as wardrobe.

House lighting is by means of 150-watt reflector lamps in the ceiling, for direct illumination, and a row of 25-watt lamps at 9-in. centres behind a pelmet around the auditorium. These are controlled by 2 Strand J-type dimmers operated from the lighting control room or the projection box.

The sound system is centred around a mixing panel desk mounted by a large window in the projection box. Two turntables and a tape recorder are mounted on the desk; each of these has independent cueing facilities. A 3-speaker array, mounted on castors, provides the backstage source of sound whilst on occasion two sound columns (each of six 6-in. speakers) can be mounted one on each side of the proscenium, above the level of the pelmet, as alternatives. Their use is mainly confined to reinforcement when some non-theatrical use is made of the forestage. Student meetings, addresses and debates are commonly held in the Hall during the luncheon period.

The entire auditorium is encompassed by an inductive loop, set behind skirtings, which is coupled to an amplifier which has a ribbon microphone continuously monitoring the stage from a position on the centre of the second lighting batten. Switching allows the loop to be disconnected while curtains are closed. A second output of this amplifier feeds loudspeakers in the dressing rooms and front-of-house control rooms, each of which has an individual attenuator having a minimum position such that the speaker cannot be completely muted.

The opening performance in the Hall was *Androcles and the Lion*, for which lack of time for the technical rehearsals rendered the " ad libbing " propensities of front-of-house control absolutely essential; a major test of the installation is expected with a production of *Under Milk Wood* in early 1959.

BOOK REVIEWS

Frank Bradley, who reviews here *Stage Planning* and *Stage Lighting on a Shoestring*, is an architect in the Manchester City Architects Department. He is also a member of the Association of Theatrical Designers. He has designed many settings for the Manchester Green Room Society, the Southport Garrick Society and other organisations.

Edward F. Kook, who reviews the *Oxford Companion to the Theatre*, will be remembered by TABS readers for his article on German Theatres which appeared last year. Mr. Kook is an American closely connected with the theatre in the States and with stage lighting in particular.

Martin Rubeck, who reviews *Lighting the Stage* has been lighting amateur shows in Surrey for nearly thirty years. In 1951, 1953 and 1956 he was responsible for the Reigate Pageant, and is at present planning this year's production.

OXFORD COMPANION IS A PAL

The Oxford Companion to the Theatre.
(2nd Edition.)

Edited by Phyllis Hartnoll. *Published by the Oxford University Press.* **45/–.**

Back in May 1958, at the Strand Electric Company, the Editor of TABS handed me a copy of the 2*nd Edition of the Oxford Companion to the Theatre* with the half-serious query: " How would you like to review this book for our magazine, TABS? The size and the weight of the volume gave me cause to pause. To his astonishment and my own amazement, the assignment was accepted. To one to whom theatre is life, a busy life too, the condition of six months of reading time was requested and granted.

The Oxford Companion to the Theatre is no mere manual. It is a distinguished work written by personalities of distinction in the educational and theatrical world.

This book is packed full of pertinent matters relating to all aspects of the performing arts—except one. The *Companion* is no ordinary compilation of theatrical personalities, theatre history and facts, although one speculates why the history did not include the very beginning of theatre in Egypt.

The one major phase of the dramatic art for which I searched was Direction. In our country, the U.S.A., theatre arts are dominated by the Director. He is the person who dictates the style of production, who creates the atmosphere, the tempo and the rhythm. He is the initiator and the " creative spectator in advance of the fact ". How then is it possible to neglect the Director in this book on the theatre? And if one is permitted another question of the Editor: Since the English were granted the space to up-date the subject on modern stage lighting in their country, why then was not the same consideration permitted the Americans?

Be that as it may, the book remains a major accomplishment. Under the wise guidance of Miss Phyllis Hartnoll a book varied and clear has been written with verve and vigour. It is recommended as a valuable reference for both professional and amateur. *The Oxford Companion to the Theatre* is a " light " book in the serious sense that one can find so much light in it.

Edward F. Kook.

Lighting the Stage.
(1958 Edition.)

By P. Corry. *Published by Pitman.* **25/–.**

Mr. Corry's well-named book *Lighting the Stage*, first published in 1954, needed but few additions to bring it up to date.

Every amateur dramatic society in the kingdom should own at least one copy and, preferably, one each for the producer, designer and that section of the club which deals with the lighting. It will benefit each and every one of them.

Societies often have a member well qualified to deal with the purely electrical side of lighting, and sometimes one gifted with a sense of stage lighting; much more seldom do we find these qualities combined in one person, and so we often hear the plaintive cry " I wish we had someone to do our lighting ". A careful study of this excellent book will gently guide either type along the path to a better understanding of what is required.

Mr. Corry has the delightful gift of handing on some of his great store of knowledge and experience in such a kindly and modest way that one is impelled to follow his advice and suggestions, feeling quite sure that the results will be worthwhile.

He touches on every aspect of stage lighting, the plates and text showing clearly what equipment is available and how it should be used, not forgetting advice on what pitfalls to avoid.

I thought the chapters on typical lighting problems and colour particularly good; also Tyrone Guthrie's Foreword is quite delightful.

Recently, in a South coast town, I saw a new play with a fine cast, prior to its London run. The scene showed a large up-stage window facing the sea, with glorious sunshine pouring in from the right. All the vertical window bars were brilliantly lit from the left! This was capped by a high-wattage spot (not flood) showing from the fireplace on to a large patch of ceiling, giving a clear-cut " magic lantern " effect of knees, feet and what have you, which frequently diverted one's attention from the play.

All of which goes to show that professionals also might do well to read this book and avoid making such elementary mistakes.

Martin Rubeck.

Stage Planning.

Strand Electric and Engineering Co. Ltd. (Issued free on request.)

This second edition of *Stage Planning*, will be most welcome to all interested in designing and equipping the stages in schools, public halls and Little Theatres.

Unfortunately, it is evident from the schemes illustrated in architectural journals that plans are still being prepared for stages which will be practically useless for the purpose intended. Many criticisms and disappointments will, therefore, arise due to ignorance on the part of the designer.

This is a pity, and it is hoped that this admirable booklet will enable those whose work it is to design a stage, to produce one that is functional, and also a delight to producers, technicians, cast, and the audiences who go in the hope of enjoying the show. This publication, which is most comprehensive, deals with planning details, draperies, equipment, lighting, and special problems that have arisen from existing stages. It is a guide for initial planning, showing how to avoid restrictions that may make future extensions economically and structurally impossible.

There is a brief mention of a stage which will solve the problems of many who are unable to possess **a permanent one**. This is the Retractable Stage, regrettably not illustrated. **It is certainly a** sound work of engineering and extremely ingenious.

Frank Bradley.

Stage Lighting on a Shoestring.

The Strand Electric and Engineering Co. Ltd. (Issued free on request.)

This is a completely new and revised edition of *Stage Lighting on a Shoestring* first published in 1954. It is intended as a guide to those many amateurs who work under severe restrictions, both physical and financial. It is a manual of instruction on the installation of lighting, and describes how this can be achieved section by section as finances grow. It is arranged as a master plan, showing how the whole scheme can be built up unit by unit until ultimately the stage is fully equipped.

Gone are the days of compromise with the old biscuit tin and the long timber strip battens with their numerous lacquer lamps, and that most awesome of all equipment—the liquid dimmer. Now the most modern units of lighting are easily available to everyone, and allow for a greater variety and flexibility.

Here we have, along with the booklet *Stage Planning*, the recipe to enable a stage to be effectively equipped for any production within the limitations of our small halls and theatres. Both these publications are well written and illustrated with plans, sections and details, and to add to our delight—they are free.

Frank Bradley.

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