

THE BBC THEATER ORGAN

"The BBC Theatre Organ featured in this article was unfortunately lost during World War II due to bombing. BBC replaced it with the famous Foort "Traveling Moller".

"The description contained herein of the Compton Organ is a reprint of a brochure provided by BBC prior to the war as are the photos used in illustration."

THEATRE ORGAN WISHES TO THANK THE
FOLLOWING FOR THEIR GENEROUS COOPERATION
AND PERMISSION TO PUBLISH THIS ARTICLE ON THE B.B.C. THEATRE ORGAN:
THE BRITISH BROADCASTING CO.
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Associate Editor Theatre Organ

A Description by REGINALD FOORT

Although I have been Staff Theatre Organist for more than a year and a half. I never sit down at the BBC Theatre Organ without experiencing a thrill at the thought of playing of the grandest and most versatile and satisfying theatre organs in the world!

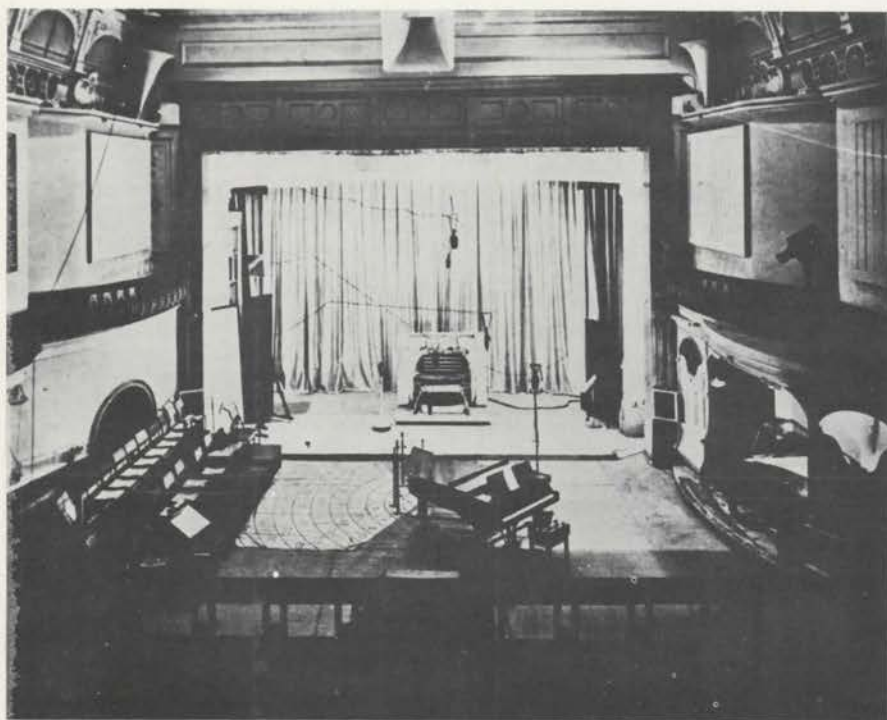
During the years since those first organ broadcasts from Shepherd's Bush Pavilion and the New Gallery Kinema, the universal popularity of cinema organ broadcasts has steadily increased and it is hardly surprising that it was decided to install a large theatre organ in St. George's Hall—the first one in this country to be specially designed and built exclusively for broadcasting.

The immense advantages of having such an organ are obvious; there are no audiences to be considered; broadcasts can take place at any time of the day or night; all kinds of interesting combinations of other instruments or singers can be incorporated; acoustics can be studied and the organ designed and voiced throughout from the point of view of broadcasting; every effort can be concentrated on producing perfect results for the listener through his radio set.

The BBC Theatre Organ has been an unqualified success. As it is not merely an ordinary 'cinema' organ but is also a very fine and complete concert organ, in addition to its immense popularity as a solo instrument, it has proved its worth by being used to enhance practically every type of show produced by both Variety and Music Productions Departments. It is a kind of one-man orchestra which can be used to perform practically any type of music or reproduce almost any sound in existence.

The BBC Theatre Organ was built by the John Compton Organ Co., Ltd. It has four manuals, 23 units (in addition to the Compton Patent Electrone) a grand piano playable from the console and a complete equipment of tonal and non-tonal percussions. It took seven

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A GENERAL VIEW OF ST. GEORGE'S HALL

The console has been wheeled into position ready for a solo broadcast. Note the organ swell-boxes--those on the left hand side are open and those on the right are closed. Near the roof can be seen the loudspeakers through which all the sounds of the Electrone are produced. At the right-hand side is the grand piano which is playable from the keyboards of the console.

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months to build and erect and was officially opened on October 20, 1936. Since that date up to the present day, 597 solo recitals have been given on it, 386 by myself and 211 by the 68 guest organists who have been invited to broadcast on it. Indeed, one of its happiest advantages is that so many fine players have been enabled to broadcast who, for various reasons, would otherwise have been unable to do so.

The organ has 260 stops, 1,780 pipes, and approximately 100 miles of wire were used in its construction. Pipes vary from 1/2 inch to 16 feet in length. It incorporates every conceivable shade of organ tone. The units comprise: Tuba Magna, Tuba Horn, Trumpet, English Horn; two fine Diapasons; large wood and small metal Tibia Clausas; Vox Humana, Clarinet, Krumet, Orchestral Oboe, Kinnura; Cello, Cello Celestes (2 ranks), Gamba, Violin, Violin Celeste, Strings (2 ranks) Salicional; Solo Concert Flute, Hohl Flute, Stopped Flute.

Will the reader kindly imagine that he is visiting St. George's Hall and that I am escorting him on a personal tour of the organ?

We enter what, at first sight, appears to be an ordinary, not very large, thea-

tre of the music hall type, complete with rows of stalls a circle and a large stage. But certain alterations will be observed to have been made: the stage, which, by the way is as big as the entire auditorium has been permanently thrown open to make a magnificent broadcasting studio several of the front rows of stalls have been removed to provide space for a large orchestra, and a sound-proof control cubicle has been installed on one side of the stage through the glass windows of which the engineers and balance and control experts can observe everything taking place in the hall. The circle was formerly of the old-fashioned type running along both sides of the theatre right up to the proscenium arch, but now the two ends of the horse-shoe have been converted into organ swell-boxes to hold all the organ pipes, drums, bells, etc. To the fascination of the visitor, the vertical swell shutters open and close in full view all the time the organ is being played as the organist controls them with his right foot to increase or reduce the volume of tone.

Let us first have a close look at the console, the part of the organ at which the player sits. This forms a really striking picture and gives an immediate idea of the size and complexity of the organ.



Reginald Foote at the BBC Theatre Organ.



A 'Rhythm Broadcast' in Progress in S. George's Hall. In the background is the soundproof cubicle from which the programme is balanced and controlled.

THE CONSOLE

The visitor's first spontaneous remark is invariably 'How on earth do you manage to remember and operate all those hundreds of stops and gadgets?' My reply is that it is equivalent to thinking and talking in a foreign language. Just as a person who knows two or three or more languages fluently has no difficulty in remembering many hundreds of words, so the organist must know his console and every stop it contains so thoroughly that he can think in terms of it instinctively.

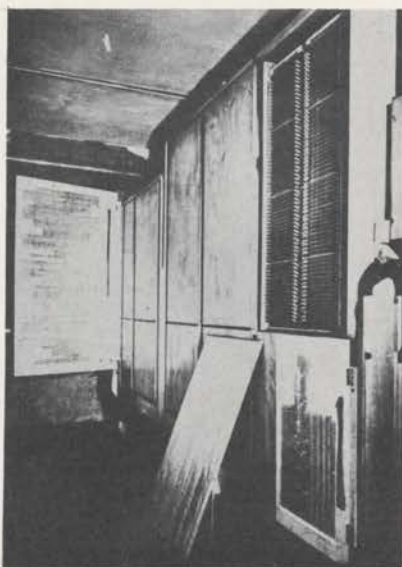
The console is built of beautifully grained Austrian oak, with quartered panels and is really striking in the simple severity of its design. It is mounted on a kind of movable trolley so that it can be stowed away on the side of the stage for broadcasting. It has four manuals or keyboards, known from the lowest one upwards as Accompaniment, Great, Solo, Orchestral, in addition to a pedal board which is a replica of that of the orthodox organ, on which the bass notes are played with the feet. The stop-keys are arranged in three rows in the usual horse-shoe lay-out. Notice how the various stops which operate on their appropriate manuals are grouped. This grouping is clearer on the BBC Theatre Organ than on any other organ of its size in existence. The Pedal stops are on the left hand side; next to these are the Accompaniment stops which operate on the lowest keyboard. The stops for the Great occupy the two rows beneath the music desk, and those for the Orchestral and Solo manuals are on the right-hand side of the horse-shoe. Second touch by which the organist can play a melody and an accompaniment all on one row of keys is provided on the Accompaniment and the Great. For facility in controlling the stops, there are 12 pistons under each manual. These enable the player to change combinations of

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stops instantly and are 'set' at the console by means of the setter piston at the left hand end of the pedal board. There are also 6 general pistons which operate all the stops of every department at once. There are 4 swell pedals, 3 of which control the swell shutters of the 3 swell boxes, the fourth being a general crescendo pedal which adds all the stops on the Great and the Pedals one by one without moving the stop keys.

The console is connected to the organ itself, via the relays, by means of a flexible armoured cable which contains 970 wires, each insulated from the remainder. Every stop key, every piston, every note of the keyboard, is virtually an electric switch, and whenever one of them is moved by the organist, it makes a contact which allows a 15-volt current to travel through its appropriate wire in the connecting cable to do the necessary work upstairs in the organ chamber. When the organist wishes to play, he puts down some of the stop-keys, thereby causing certain electric switches up in the relay room to make



The cover has been removed of that portion of the relay which is operated from the Great, i.e., the second keyboard from the bottom.

contact; this brings into action the required sets of pipes or effects. Then, when he plays the organ by pressing down the keys at the console, further electric contacts are made, and the current is sent through more wires in the connecting cable, and this, operating through the relay mechanism, allows the wind to enter the pipes.

THE RELAY ROOM

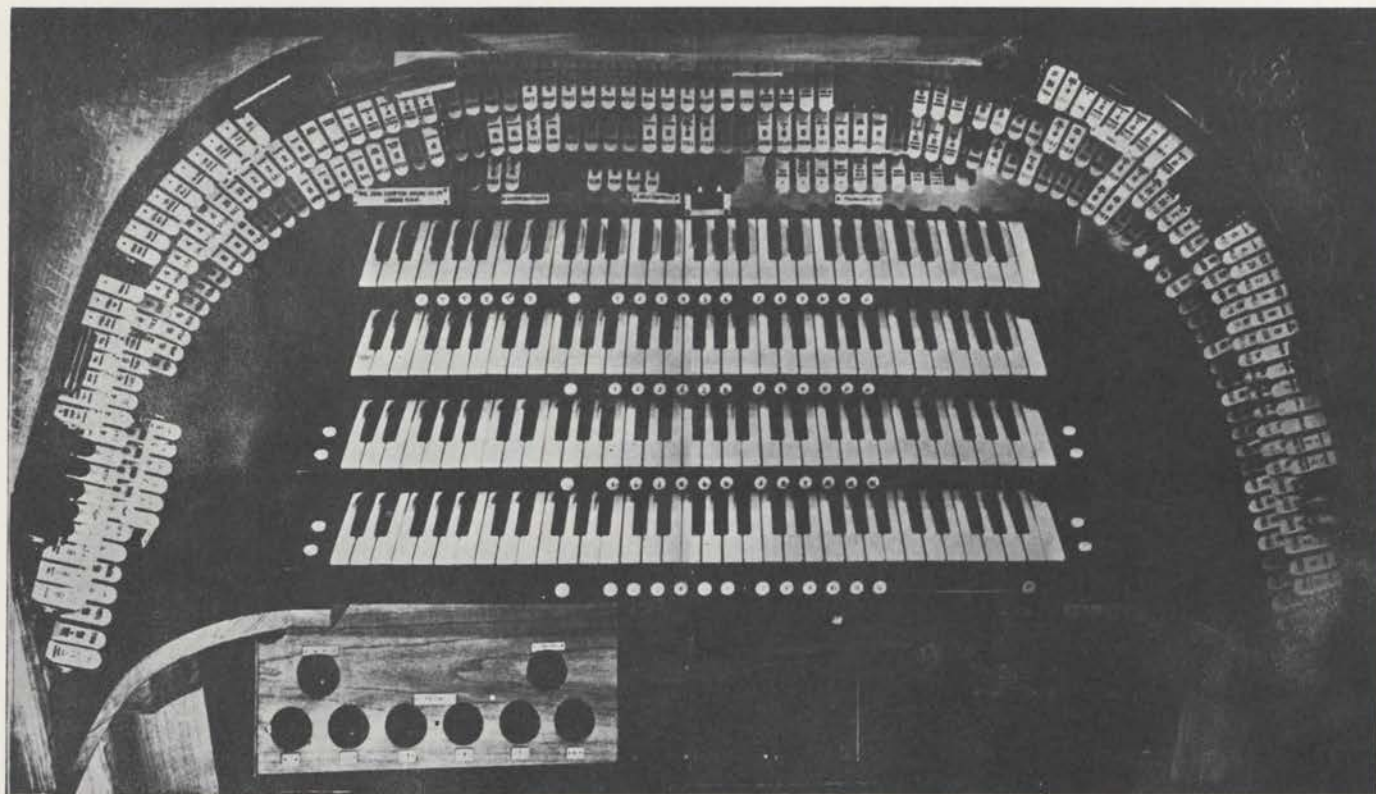
Next let us visit the relay room which is situated in part of what used to be one of the boxes adjacent to the stage. The remainder of the box is used to house the grand piano which can be played from each of the keyboards of the console.

The relays are equivalent to a kind of complicated switchboard at which all the various messages sent by the organist's fingers are sorted out and transmitted to their respective portions of the organ.

THE ORGAN CHAMBERS

The organ chambers, containing the various rows of pipes, drums, cymbals, bells, etc., are situated in the ends

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A CLOSE UP OF THE CONSOLE OF THE BBC ORGAN.

Starting at left are the stops for the pedals. Next to these are the stops for the Accompaniment (lowest) Manual. The two rows of stops immediately below the music desk are for the Great Manual. On the right-hand side of the horse-shoe are the stops for the Solo and Orchestral Manuals. The stops in a straight row immediately over the top keyboard are second touches and tremulants. The six thumb pistons under the left end of the keyboard are the general pistons which control the stops of the whole organ. The two pairs of pistons at the ends of the lowest two keyboards operate the Crash Cymbal and the Chinese Gourds. The toe pistons operate the Pedal Stops and control some of the Effects. The piston let into the third Swell Pedal controls the sustaining pedal of the piano.

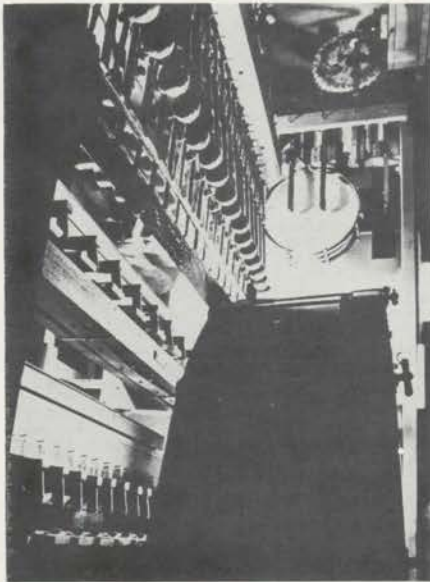
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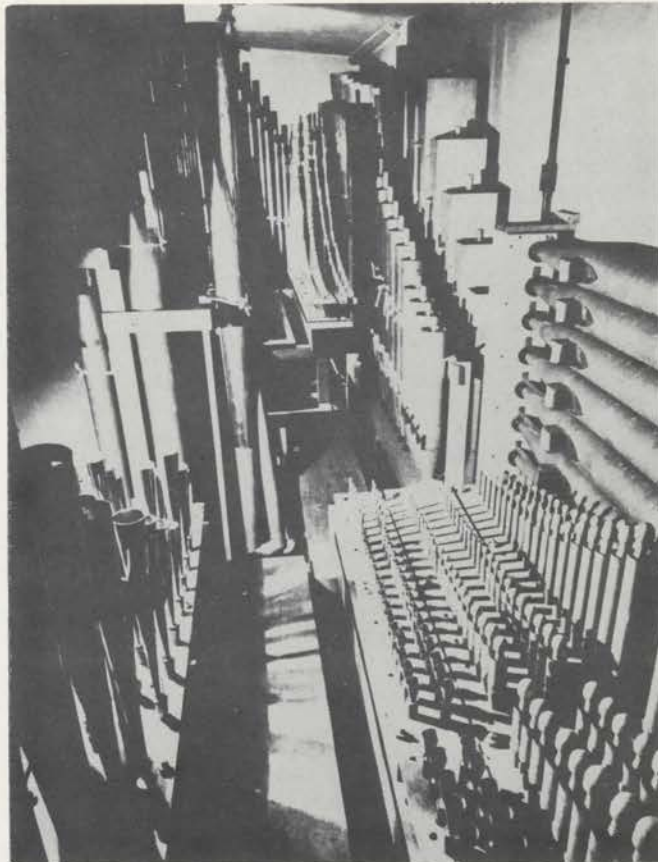
nearest the stage of what used to be the grand circle. The two ends of the circle were separated off by means of sound-proof walls and formed into three organ chambers, so now we must proceed up two flights of stairs to the circle and unlock the door leading to these. We come first to the Percussion chamber—that is the room containing all the drums, cymbals, chimes, glockenspiel, xylophone, etc. These always seem to fascinate the visitor more than anything else in the organ!

At the far end of the room is a door leading to the Main chamber. This contains the diapasons, flutes, and string pipes, i.e., most of the stops mainly used for accompaniment purposes. Notice the various rows of pipes arranged on top of the wind chests. Below are the wind regulators which look rather like small versions of the old fashioned bellows but which are controlled by strong V-shaped internal springs in place of the weights on top which were formerly employed.

Now we make our way back through the Percussion chamber into the circle, walk around to the opposite side and enter the Solo chamber. This contains most of the heavy reed stops; the big Tibia Clausa, the Vox Humana, and the woodwind pipes, including the Orchestral Oboe, on the lovely tone of which so many listeners have remarked.



The large object in the foreground is the Bass Drum, behind which is the Snare Drum. (Note the two beaters which give a roll by operating very rapidly alternately.) The small decorative drum above the Snare Drum is the Tomtom. On the left (above) is the Vibraphone, and (below) the Glockenspiel.



(Left) the Trumpet Pipes, (right) the Kinura and the small (metal) Tibia Clausa. The horizontal pipes are the Gamba 16ft. In the background can be seen some of the Diapasons, Flutes, and Strings.

THE BLOWING INSTALLATION

On leaving the relay room, we go down a short staircase to the basement to have a look at the blowing installation. Actually there are two of these—each independent of the other—one for the Solo chamber, and the other for the Main and Percussion chambers. It is the latter which we are inspecting. It consists of a 10 h.p. electric motor which revolves a rotary fan very much like a steam turbine. The compressed air thus produced is conveyed through a large metal wind-trunk up through the ceiling and thence by numerous smaller trunks to the various wind reservoirs in the organ chambers. Notice also the 15-volt dynamo which operates rather like the magneto of a car. This is driven by a belt from the main shaft of the big motor to provide the current required to operate the action.

THE ELECTRONE

Once more we find ourselves in the circle, so let me point out the large loud-speaker near the roof of the hall, through which all the tones of the Compton patent Electrone are produced. The Electrone is one of the latest and most striking additions to the modern organ. Without the use of organ pipes or wind, all the sounds are produced synthetically by

electrical means and then amplified. Some of the loveliest tones of the organ are the result, to say nothing of the wonderful synthetic chimes and the artificial acoustic effects. The Electrone is played from the top keyboard, the stops being placed on the top row on the extreme right of the console.

Now I am afraid we must conclude our tour of the organ because in a short time I have to broadcast, so come downstairs to the console with me. I must put my music in order and reset some of the pistons with the special combinations of stops which I shall require for this particular programme. Then I have to think a little about what I am going to say before each item and I must run over some of the difficult passages. Now we are ready—glass of water and all: here is the announcer and I must have a word with him. There are the warning flicks of the red light. The announcer holds up his hand and says 'Quiet, please. The red light comes on and glows steadily . . . we are on the air. The announcer says 'This is the National programme. Here is Reginald Foort at the BBC Theatre Organ'. I play my signature tune—Keep Smiling—and then turn to the microphone and announce my first item: 'Good evening, everybody. I am going to begin by playing you . . .'