



Hall

GRID RIGGING & SUSPENSION GEAR

CATALOGUE 20 SECTION 3

HALL AND DIXON LTD.

STAGE EQUIPMENT—CONTRACT FURNISHING

'Phone TEMple Bar 1930, 8331

19, GARRICK STREET, LONDON, W.C.2.

	Page		Page		Page
A Act Drop	86, 102, 103, 104, 105	Grid	86, 87	R Recommended Riggings	85
Adjustable Girder Clip	117	Grid Frame, Suspended	119	For Opera House, Theatre	86
Awning Pulley (see Pulleys)		Grid Pulleys (see Pulleys)		For Civic Hall, Concert Hall and Pier Pavilion	87
B Barrels and Fittings	133 to 136	Grid Hook Bolt Pulleys (see Pulleys)		For School, Lecture Hall and Village Hall	88
Batten Clip	137	Grips for Cable	131	Ringplates	137
Blocks, Tackle with swivel hooks	139	Grummetts	132	Ropes	86, 89, 113
Border Barrel and Hand Rope Sets		Guide Pulleys	122 to 125	Ropes, Scenery Hand Ropes	110, 113
	87, 89, 96, 97, 120	H Hand Ropes	110, 111	Rope Lock, Lever	104, 105
Border Barrel Suspension Sets	97	Hand Ropes and Border Barrel Sets	87, 89, 94, 96	S Sandbags	137
Bolts, Eyebolt	132	Hoists	89, 106, 107	Scenery:	
Bolts, Hookbolt	133	Hoists for Lighting Fittings	87, 89	Flying Fittings	137
Bridle Chains	107	Hoists, Self-sustaining:		Flying Irons	138
C Cables	89, 131	General Remarks	87	Hand Rope Set	110, 113
Cable Fittings	131	Diagram and Illustrations	128, 129	School Stage, Rigging	88, 98, 100
Ceiling Fixing Pulley	114, 115	Schedules	108, 130	Sections of Tubing	136
Ceiling Plate	137	Hook Bolt	133	Self-sustaining Hoist (see Hoists)	
Chain	134	Hook Bolt Grid Pulley	126	Shackles	131
Chain Bridle	107	L Lecture Hall, Rigging	88	Single Purchase Counterweighting	94
Civic Hall Rigging	87	Lighting Fittings:		Sight Lines and Masking	97, 98, 99
Cleat Flyrail	89, 110, 113	Counterweighting	87, 94	Sling, Barrel	134
Cleat Throwline	113	Self-sustaining Hoist (see Hoist)		Spring Hook (hand-forged)	134
Cleat Rail	86, 110	Lighting Suspension Equipment	89, 106, 107, 108	Strainers	134
Clew Swivel	130	M Masking and Sight Lines	97, 98, 99	Suspended Grid Frame	119
Clips:		Multipurpose Stage	88, 100	Suspension Fittings	132 to 135
Eyebolt Clip	109	O Opera House, Rigging	86	Suspension Frames	98, 99
Girder Clip	117	P Pier Pavilion, Rigging	87	Suspension Lighting Equipment	87, 106, 107
Overlap Track Clip	133	Pulleys for ACT DROP:		Suspension Border Barrel Sets	87, 97
Universal Suspension Clip	133	General Remarks	86, 103	Swivel Arm, self-locking	100, 101
Coacheyes	132	Diagram and Schedule	103	Swivel Clew	130
Concert Hall Rigging	87	Illustrations	102, 104, 105	Swivel Eye	132
Counterweighting	86	Pulleys for BORDER BARRELS:		Swivel Hook Tackle Blocks	139
Single Purchase	94	General Remarks	86, 87, 88	Swivel Leg Curtain	100
Double Purchase	95	Schedules	89, 97	Swivel Tube Clip	135
Cradle	104	Illustration	96	T Tackle Blocks (Swivel Hook)	139
Lighting Fittings	87, 89, 106	Pulleys for LIGHTING BARREL SETS:		Theatre Rigging	86
Cradle Guides	105	General Remarks	86, 87, 88, 107	Thimbles for Cable	131
Curtain, Swivel Leg	100	Schedules	89, 107, 108	Tube Clips	135
D Double Purchase Counterweighting	95	Illustration	106	Tube Sections	136
E Eyebolts	132	Pulleys for HAND ROPE LINES:		V Village Hall Rigging	88, 98
Eyebolt Clip	109	General Remarks	86, 87, 88		
F Fittings:		Schedule	89		
Barrels	133 to 136	Illustrations	96, 110		
Cables	131	Pulleys for GRID:			
Suspension	132 to 135	General Remarks	86, 87, 89		
Scenery Flying Irons	138	Diagram	94, 95, 112		
Flying Scenery	137	Illustrations	110, 111, 112, 126, 127		
Fit-up Pulley	109	Pulleys:			
Flyrail	86, 110	Awning	116, 117, 118		
Flyrail Cleat	110, 113	Ceiling Fixing	114, 115		
Frame, Suspended Grid	119	Fit-up	109		
Frame, Suspension	98, 99	Girder Fixing	120, 121		
G Girder Clips	117	Hook Bolt	126		
Girder Fixing Pulley	120, 121	Guide	122 to 125		

CATALOGUE 20

1. Sliding Curtain Equipment
2. Revolves, Lifts, Safety Curtains and Rolling Stages
3. Grid Rigging and Suspension Gear
4. Contour and Festoon Curtain Gear; Cyclorama and Panorama Equipment
5. Scenery Fittings and Stage Accessories

The planning and rigging of any STAGE is a complex job and calls for special knowledge and experience.



THE SMOOTHNESS AND SCOPE OF STAGE PRESENTATIONS LARGELY DEPEND ON THE RIGGING & EQUIPMENT PROVIDED

We are very happy to place at your disposal our long experience in STAGE ENGINEERING AND PLANNING. We would be pleased to offer suggestions, prepare stage plans and submit quotations without cost or obligation.

OVER FIFTY YEARS STAGE ENGINEERING EXPERIENCE AT YOUR SERVICE

STAGE RIGGING. The only satisfactory way to rig a stage is to first make PROVISION for all the equipment which is likely to be required, even if at the outset only the barest minimum is installed.

There are many hundreds of stages in existence where, because this was not done, the Stages are UNWORKABLE from a production point of view.

The following recommendations are a general guide to good stage rigging practice and will help in planning a workable stage. For the sake of simplicity we have divided STAGES into three main groups.

TYPE A — OPERA HOUSES & THEATRES

This stage would be provided with a Rigid Safety Curtain, Stage Lantern, with height and equipment for flying scenery. *See page 86 for recommendations*

TYPE B — CIVIC HALLS AND PIER PAVILIONS

This stage would be provided with a two-piece or roller-type Safety Curtain, Stage Lantern, but without height for flying scenery. *See page 87 for recommendations*

TYPE C — SCHOOLS, LECTURE HALLS AND VILLAGE HALLS

This stage would be used for occasional performances, lectures or prizegivings and might be described as a multi-purpose stage. There would be no safety curtain, and no height for flying scenery. *See page 88 for recommendations*

For general recommendations on Pulleys, Ropes, Cleats, Hoists and Cables for various size stages see page 20/89.

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Recommended RIGGING for Type 'A' STAGE

TYPE 'A' STAGE

OPERA HOUSES & THEATRES

with RIGID SAFETY CURTAIN, DRENCHER,
STAGE LANTERN and with HEIGHT for
FLYING SCENERY

GRID. A Steel Grid (as shown on page 94) with two Fly Floors and a counterweight Loading Gallery. The Grid should be drilled at 8-in. centres ready for counterweighting sets.

COUNTERWEIGHTING. Hall Counterweighting Sets should be installed at 8-in. centres covering the entire

Grid, but a minimum of 15 Sets would supply the following essential suspensions: one set for the ACT DROP; three sets for SLIDING CURTAIN TRACKS; four sets for ELECTRIC BATTENS and SPOT BARS; and seven sets for HEAVY SCENERY.

NOTE : For Stages with Prosceniums up to 32 ft. wide three-line counterweight sets are satisfactory. Over this size four-line sets are recommended. The Grid must be set out to give the necessary "drops". We would be very pleased to set out the Grid, Safety Curtain and Lantern Light on receipt of general details or building plans (without charge or obligation).

ROPE SETS. About 20 sets of No. 182 Hand Rope Pulleys and Ropes (see page 126) should be provided. These pulleys are designed to hook-bolt on to the grid slats. These sets are used mainly for hanging borders, cut-cloths, gauzes and scene cloths. Three-line sets are the most satisfactory for this purpose being easier to "dead-off", also for hauling (see page 89).

NOTE : For all stage work we find sisal rope is quite satisfactory, but we can supply the more expensive manilla if required. It is good Stage Engineering Practice to support the Head Pulleys of Hand Rope Sets on a No. 299 Mounting Frame. In this way the Sets may be mounted closer and the ropes are kept clear of the Grid Slats. See diagrams on pages 94 and 95 (numbers 20 and 21).

The No. 278 Head Pulley is designed for this purpose. They are made in three sizes—3 in., 4 in., and 6 in. and the Sheaves are arranged in "line" (as shown at No. 19 in diagrams on pages 94 and 95) instead of side by side. For general guidance in selection of pulleys for particular application see page 89.

FLYRAILS. Double rows of No. 135/18-in. Flyrail Cleats should be installed at 12-in. centres on each fly floor. See diagram on page 94.

This provides for the ROPE SETS to be in any position up and down stage, with a lowering "dead" and a top "tie-off" cleat.

A supply of at least 36 No. 201 Top Batten Clips are a "must" on any theatre stage. See pages 137 and 110. For sizes of Pulleys, Ropes, Cleats, Hoists and Cables see schedules on page 89.



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Recommended RIGGING for Type 'B' STAGE

GRID. Where funds permit a Grid and Double-purchase Counterweighting should be installed. (See page 95.) If this is done the recommendations for the number of counterweight sets and fly floors would be the same as for Type "A" Stages with the exception of the loading gallery which would not be required.

Where NO GRID is INSTALLED the alternative is a number of Rolled Steel Joists running up and down stage. See diagrams on pages 98 and 106. The spacing of these joists should not exceed 14 ft., and the outside "suspension" joist should be in line with the edge of the proscenium. No. 184 PULLEYS are designed for this purpose. (See page 120.)

COUNTERWEIGHTING for LIGHTING FITTINGS. The installation of four or five double-purchase counterweight sets for Stage Lighting is highly recommended because of the ease of raising and lowering for adjustment and servicing.

HOIST SETS for LIGHTING FITTINGS. The alternative to counterweighting is the use of a number of Self-sustaining Hoist Sets. (See page 107.)



BORDER BARREL SETS. Where Borders are of a semi-permanent nature we recommend they are tie-taped to a steel barrel and suspended on steel cables as indicated at B, page 96.

The following **SUSPENSION EQUIPMENT** should be found satisfactory on a Type "B" Stage

For LIGHTING. Several Double-purchase Counterweight Sets or Self-sustaining Hoist Sets (see page 106.)

For BORDERS. Border Barrel Suspension Sets (see B on page 96).

For GENERAL USE. About Fifteen Hand Rope Sets (see page 120).

TYPE 'B' STAGE

CIVIC HALLS CONCERT HALLS & PIER PAVILIONS

with Two-Piece or Roller Safety Curtain but
WITHOUT HEIGHT for FLYING SCENERY

SWIVEL ARMS. No. 382 Swivel Arms complete with No. 386 Tracks are essential on any stage with no flying height (see page 100).

For sizes of Pulleys, Ropes, Cleats, Hoists and Cables see schedule on page 89.

Recommendations for RIGGING Type 'C' STAGE

TYPE 'C' STAGE

SCHOOLS, LECTURE HALLS & VILLAGE HALLS

This type of Stage would be used for occasional plays, concerts or prizegivings and might be described as a multi-purpose stage. There would be no safety curtain or height for flying scenery.



Type 'C' Stage may be provided with a number of Rolled Steel Joists to carry the pulleys and suspension fittings. If so the recommendations given for Type 'B' Stage would apply. Another and very satisfactory approach to the rigging problem is by our No. 306 Tubular Suspension Frames. (See pages 98 and 99.) This arrangement is simple and very versatile; all suspension pulleys and fittings are clipped round the tubular members.

We particularly recommend this for the School Stage where help is very limited.

A further development of this Tubular Grid may be seen on page 119.

The equipment detailed on pages 98 and 99 will serve as a good guide to the required rigging on this type of stage.

NOTE : For sizes of Pulleys, Ropes, Hoists and Cables see schedule on page 89.

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Pulleys, Ropes, Cleats, Hoists, Cables

FOR VARIOUS SIZE STAGES

For STAGES with PROSCENIUM of	STAGE LIGHTING HOISTING SETS				PERMANENT BORDER BARREL SETS						HAND ROPE SETS			
	Capacity	Pulley Diam.	No. of Lines	Barrel Diam.	Barrel Diam.	Pulley Diam.	No. of Lines	Cable Circ.	Hauling Rope dia.	Cleat Size	Pulley Diam.	No. of Lines	Rope Diam.	Cleat Size
Up to 22 ft. ...	3 cwt.	3"	3	1½" Gas	1¼"	3"	3	⅜"	½"	12"	3"	3	½"	15"
24 ft. ...	5 cwt.	4"	3	1½" Gas	1½"	3"	3	⅜"	½"	12"	3"	3	½"	15"
28 ft. ...	5 cwt.	4"	3	1½" Gas	1½"	3"	3	½"	⅝"	15"	4"	3	⅝"	15"
32 ft. ...	5 cwt.	4"	3	1½" Gas	1½"	3"	3 or 4	½"	⅝"	15"	4"	3	⅝"	15"
36 ft. ...	5 cwt.	4"	3	1½" Gas	1½"	3"	3 or 4	½"	⅝"	15"	4"	3	⅝"	15"
40 ft. ...	10 cwt.	6"	4	1½" Gas	1½"	4"	4	½"	⅝"	15"	6"	3	⅝"	18"
44 ft. ...	10 cwt.	6"	4	1½" Gas	1½"	4"	4	½"	⅝"	15"	6"	3	⅝"	18"
48 ft. and over ...	10 cwt.	6"	4	1½" Gas	1½"	4"	5	½"	¾"	15"	6"	3	⅝"	18"

For **PULLEYS** see pages 109, 111, 114, 116, 118, 120, 122, 124, 126.

.. **HAND ROPES** see pages 110, 113.

.. **HOISTS** see pages 106, 107, 108, 128, 129.

.. **CABLES AND FITTINGS** see page 131.

.. **BARRELS AND FITTINGS** see pages 133, 134, 135, 136.

For details of Grids, Roof Girders and Suspension Frames see pages 86, 87, 98, 99.



The 'HALL' RIGID SINGLE-PIECE SAFETY CURTAIN

This is undoubtedly the most efficient method of isolating the stage area from the auditorium in the case of fire. Our experience in this field is unrivalled and a short list of some of the safety curtains of this type installed by us is given on this page.

"HALL" Safety Curtains are designed to conform with the most stringent safety regulations and are acceptable to all Licensing Authorities. The frames are constructed from heavy rolled steel sections fully capable of resisting the increased pressure resultant upon an outbreak of fire. The curtain frames are covered on the stage side with 16-gauge mild steel sheets and on the auditorium side with 60-ounce metallic asbestos cloth. All pulleys used in the operation of the safety curtain are of large diameter, fully machined, and fitted with heavy-duty ballraces. Curtains can be electrically or hand operated, and in either case the hoist is connected with an air check buffer system in such a manner as to eliminate over-run. Main and secondary release positions are provided for all installations.

On the opposite page is illustrated a typical safety curtain arrangement with a key referring to the various components.

Some of the places 'Hall' Safety Curtains are installed

EIRE	Dundalk
N. IRELAND ...	Belfast
EIRE	Dublin/ABC Cinema
EIRE	Dublin/Guinness Theatre
TURKEY	Ankara
BRUSSELS	Theatre Royal des Galeries
BRUSSELS	Cirque Royale
BRUSSELS	National Theatre
BELGIAN CONGO	Leopoldville
PERSIAN GULF ...	Bahrein

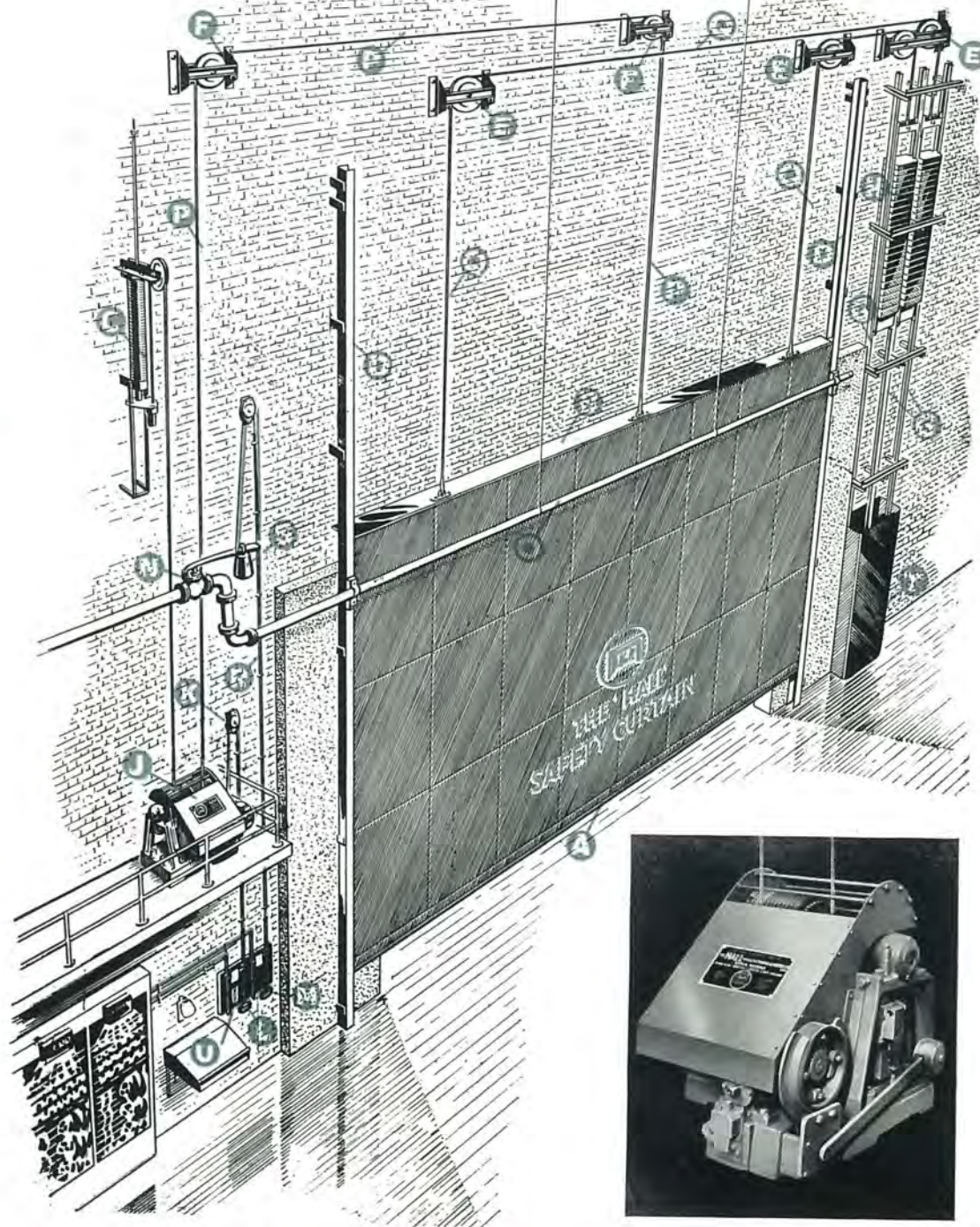
Also installed in GREAT BRITAIN

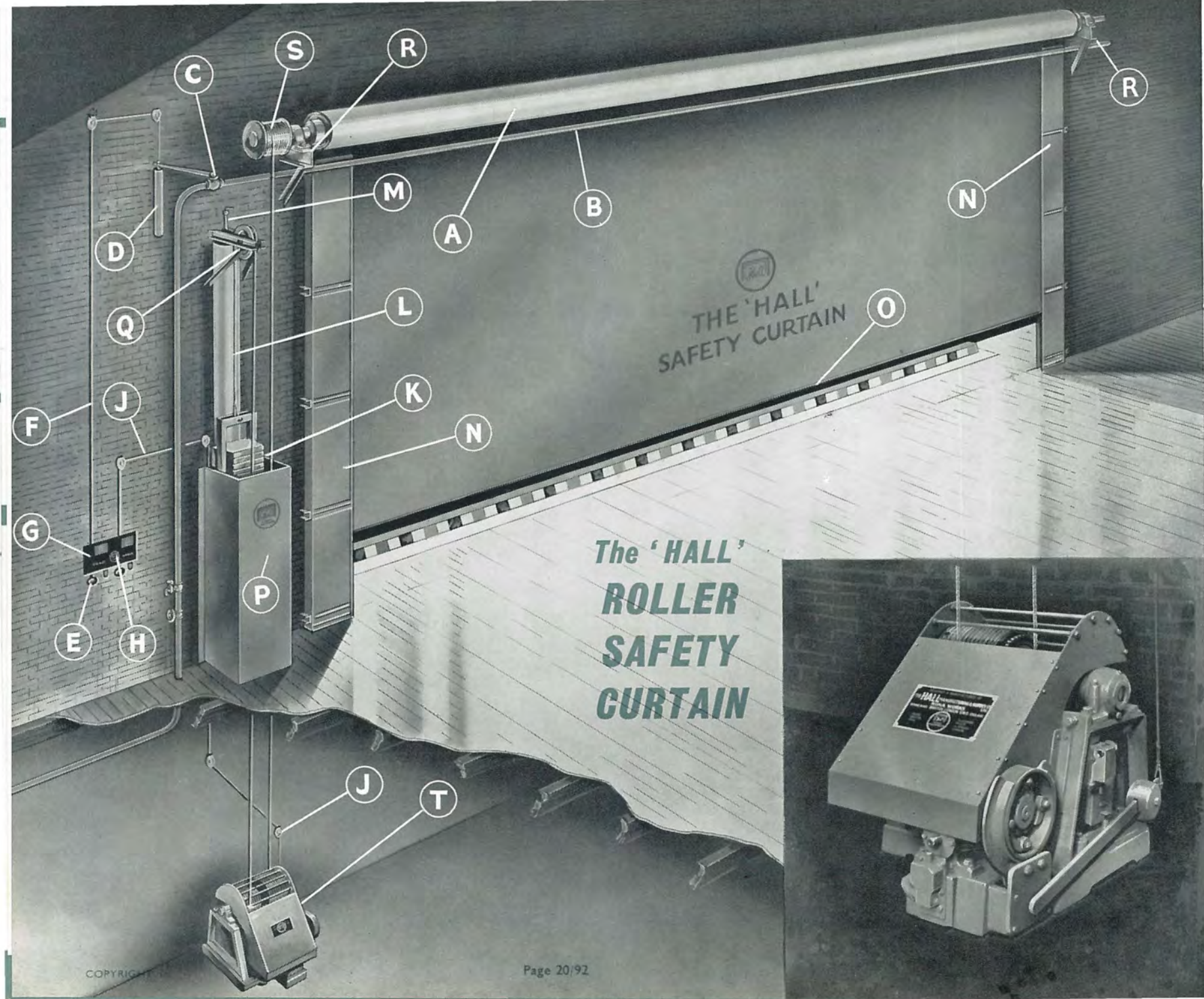
Aberdare ...	Coliseum	Harrogate ...	Royal Hall
Aberdeen ...	Tivoli	Hanley ...	Theatre Royal
Ayr ...	Gaiety	Harrow ...	Coliseum
Barnstaple ...	Albert Hall	Hereford ...	County Theatre
Barry ...	Memorial Hall	Horsham ...	Capitol
Birkenhead ...	Technical College	Kilmarnock ...	Palace
Billingham ...	Synthia	King's Lynn ...	Theatre Royal
Blackpool ...	Grand	Liverpool ...	Empire
Blackpool ...	Palace	Lowestoft ...	Hippodrome
Blackpool ...	Winter Gardens	Lowestoft ...	South Pier Pavilion
	Pavilion	Mansfield ...	Palace Theatre
Bolton ...	Lido	Newport ...	Lyceum
Bournemouth	Theatre Royal	Newquay ...	Pavilion
Bridlington ...	Floral Hall	Nottingham ...	Bramcote Hills
Bristol ...	Hippodrome	Oxford ...	New Theatre
Bristol ...	Little Theatre	Paisley ...	The Theatre
Bromley ...	Gaumont	Ramsgate ...	Granville
Canterbury ...	Marlowe Theatre	Rochdale ...	Theatre Royal
Cardiff ...	New Theatre	Seaburn ...	The Theatre
Carlisle ...	H.M. Theatre	Sheffield ...	Lyceum
Cheltenham ...	Opera House	Sheffield ...	Playhouse
Chesterfield ...	Hippodrome	Skegness ...	Arcadia
Chesterfield ...	Civic Theatre	Southampton	Grand
Cockermouth	Co-op Hall	Stockport ...	Royal
Crewe ...	New Theatre	Swindon ...	Empire
Colwyn Bay ...	Repertory Theatre	Swansea ...	Palace
Coventry ...	Civic	Tunbridge	
Eastbourne ...	Winter Gardens	Wells	Civic Hall
	Pavilion	Wood Green	Empire
Fawley ...	Anglo-American	Worthing ...	Pier Pavilion
	Oil	Worthing ...	Connaught Theatre
Ferndale ...	Workmen's Hall		

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The 'HALL' RIGID SINGLE PIECE SAFETY CURTAIN

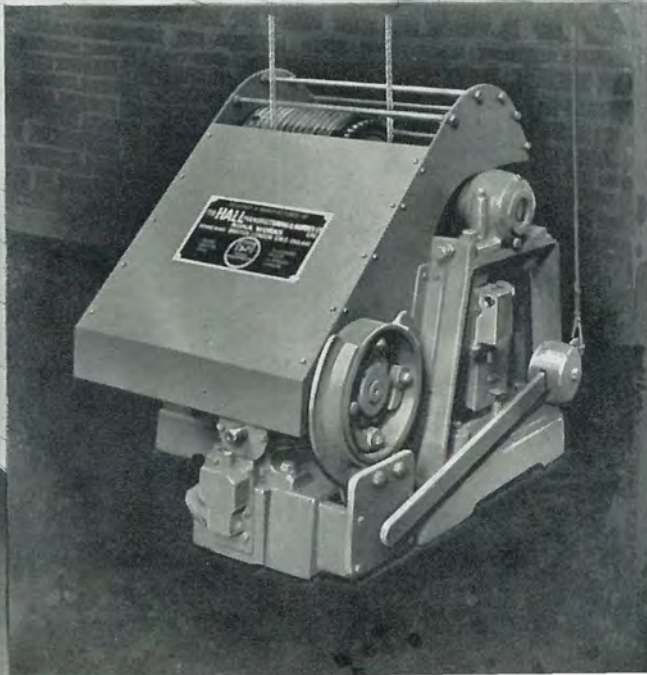
- A** - Bottom Sealing Pad
- B** - Smoke Sealing Plate
- C** - Air Buffer
- D** - Main Guides
- E** - Main Suspension Pulleys
- F** - Hauling Line Pulleys
- G** - Counterweight Guides
- H** - Counterweight Cradle
- J** - Electric Hoist
- K** - Curtain Release Cable
- L** - Curtain Release Handle
- M** - Drencher Release Handle
- N** - Drencher Valve
- O** - Drencher Pipe
- P** - Hauling Cable
- Q** - Main Suspension Cables
- R** - Drencher Release Cable
- S** - Drencher Actuating Weight
- T** - Guard for Counterweight Unit
- U** - Stage Release Board





THE 'HALL'
SAFETY CURTAIN

The 'HALL'
**ROLLER
SAFETY
CURTAIN**



The 'HALL' ROLLER SAFETY CURTAIN

Fitted with drencher, and controlled by electric hoist or hand winch with stage and external release gear, in accordance with licensing regulations.

Where buildings do not allow the installation of a rigid single- or two-piece Safety Curtain, the Licensing Authorities often agree to the roller type as illustrated on opposite page.

We have made these curtains for spans up to 60 feet, and this by no means represents the limiting length.

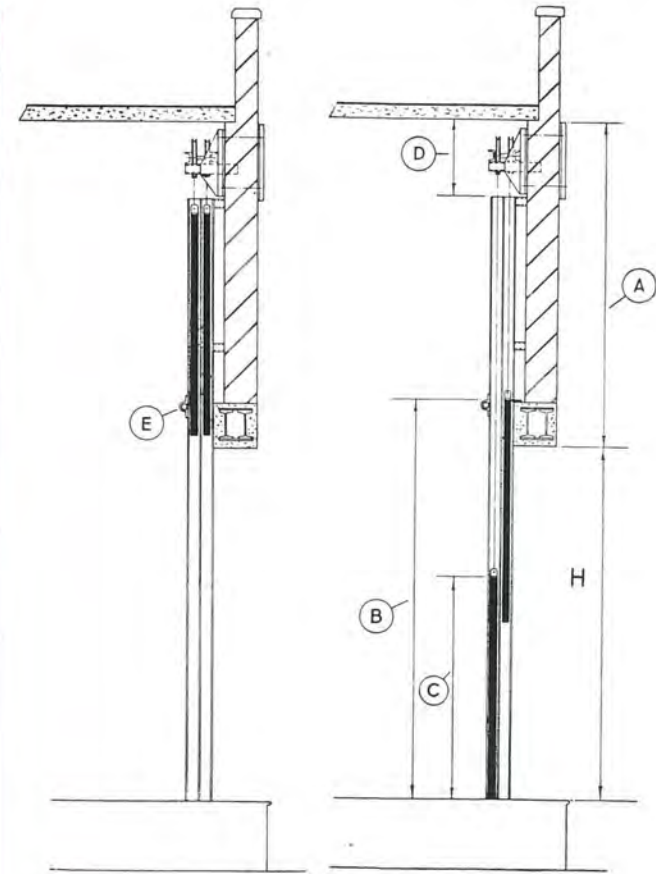
Installations include:—

Eire ... Castletown
Eire ... Downpatrick
Eire ... Limerick

Aylesbury ... Market Theatre
Aberystwyth ... Kings Hall
Babbacombe ... Concert Hall
Blackpool ... Royal Pavilion
Blackpool ... South Pier Pavilion
Bognor ... Pier Theatre
Cardiff ... Sophia Gardens Pavilion
Colwyn Bay ... Pier Pavilion
Clacton ... Savoy
Colne ... Municipal Hall
Colne ... Hippodrome
Clonmel ... Municipal Theatre
Doncaster ... Arts Theatre
Dudley ... Netherton Arts Centre
Dunfermline ... Carnegie Hall
East Ham ... Granada

Eire ... Mosney
Kenya Nairobi/Courtauld Theatre
Kenya Nairobi/Town Hall

Egremont ... Market Hall
Felixstowe ... Ranelagh Theatre
Forfar ... Reid Hall
Guildhall ... School of Music
Hastings ... White Rock Pavilion
Hornchurch ... Queens Theatre
Hunstanton ... Town Hall
Ipswich ... The Ritz
Kelsterton ... Technical College
King's Lynn ... Pilot Cinema
Kirkcaldy ... Adam Smith Hall
Leeds ... Albert Hall
Liverpool ... Theatre
Llandudno ... Pier Pavilion
Lytham ... Pier Pavilion
Lowestoft ... Playhouse
Maesteg ... Town Hall
Margate ... Winter Gardens
Middlesbrough ... Little Theatre
Morecambe ... Palace
Newport ... Pavilion Theatre
Norwich ... Pavilion
Northwich ... Assembly Hall
Nottingham ... Co-op Arts Theatre
Nuneaton ... Co-op Hall
Penzance ... Pavilion
Porthcawl ... Grand Pavilion
Rhyl ... Pavilion
Scarborough ... Spa Theatre
Shenley ... Mental Hospital
Skegness ... Butlin's
Slough ... Public Hall
Southend ... Plaza
Southend ... Pier Pavilion
Stoke-on-Trent ... Spitfire Mitchell Memorial
St. Ives ... Concert Hall
Sunderland ... Bede Tower Tech. College
Ulverston ... Coronation Hall
Wakefield ... Stanley Royd Hospital
Wrexham ... Denbigh Technical College
Weston-super-Mare ... Knightstone Theatre
Widnes ... Queens Hall
West Kirby ... Tudor Cinema



The 'HALL' Two-piece Safety Curtain

Where flying height is limited the two-piece rigid safety curtain may often be installed. This type of construction provides the advantages of rigid frames, and the operation and ancillary equipment is in all respects similar to that employed for rigid single-piece safety curtains. The method of cable purchasing employed by us ensures synchronous movement of both leaves of the curtain at the correct differential speeds. The illustration on this page shows the minimum dimensions required for the installation of a two-piece curtain.

$$A = \frac{H}{2} + 4 \text{ ft. } 3 \text{ in.}$$

$$C = \frac{H}{2} + 1 \text{ ft. } 6 \text{ in.}$$

$$B = (\text{Smoke Ledge}) = H + 1 \text{ ft. } 6 \text{ in.}$$

$$D = 2 \text{ ft. } 9 \text{ in.}$$

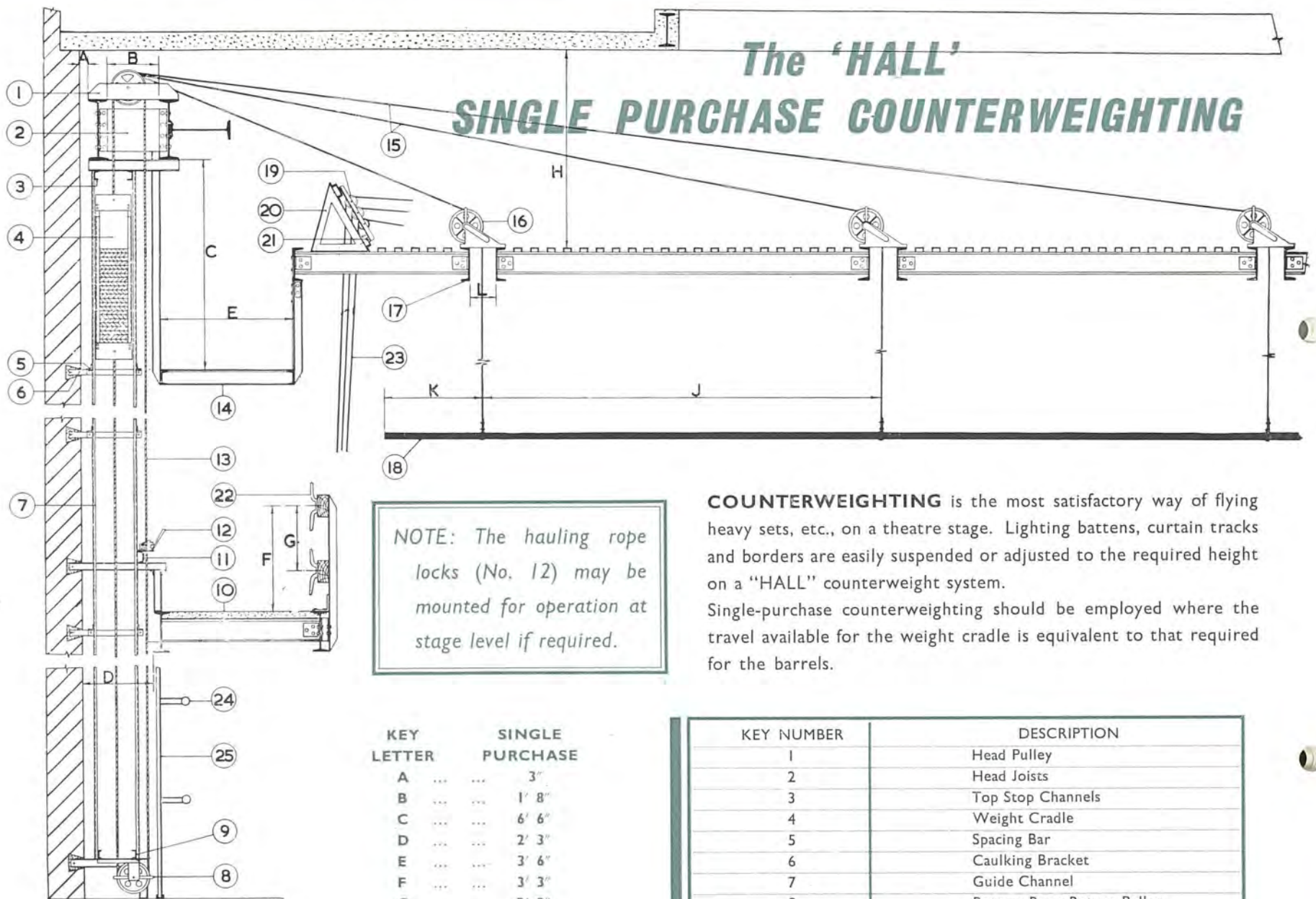
$$E = \text{Drencher pipe}$$

- A — Roller with asbestos Cloth
- B — Drencher pipe
- C — Drencher operating valve
- D — Operating weight for Drencher
- E — Drencher control handle
- F — Drencher release cable
- G — Stage release board
- H — Safety curtain release handle
- J — Safety curtain brake release cable
- K — Counterweight cradle
- L — Air buffer
- M — Regulating valve for air buffer
- N — Safety curtain main guides
- O — Smoke-sealing pad
- P — Counterweight guard
- Q — Air buffer bracket
- R — Safety curtain bearing bracket
- S — Winding drum
- T — Electric hoist

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HALL STAGE EQUIPMENT LIMITED. LONDON. ENGLAND

The 'HALL' SINGLE PURCHASE COUNTERWEIGHTING



NOTE: The hauling rope locks (No. 12) may be mounted for operation at stage level if required.

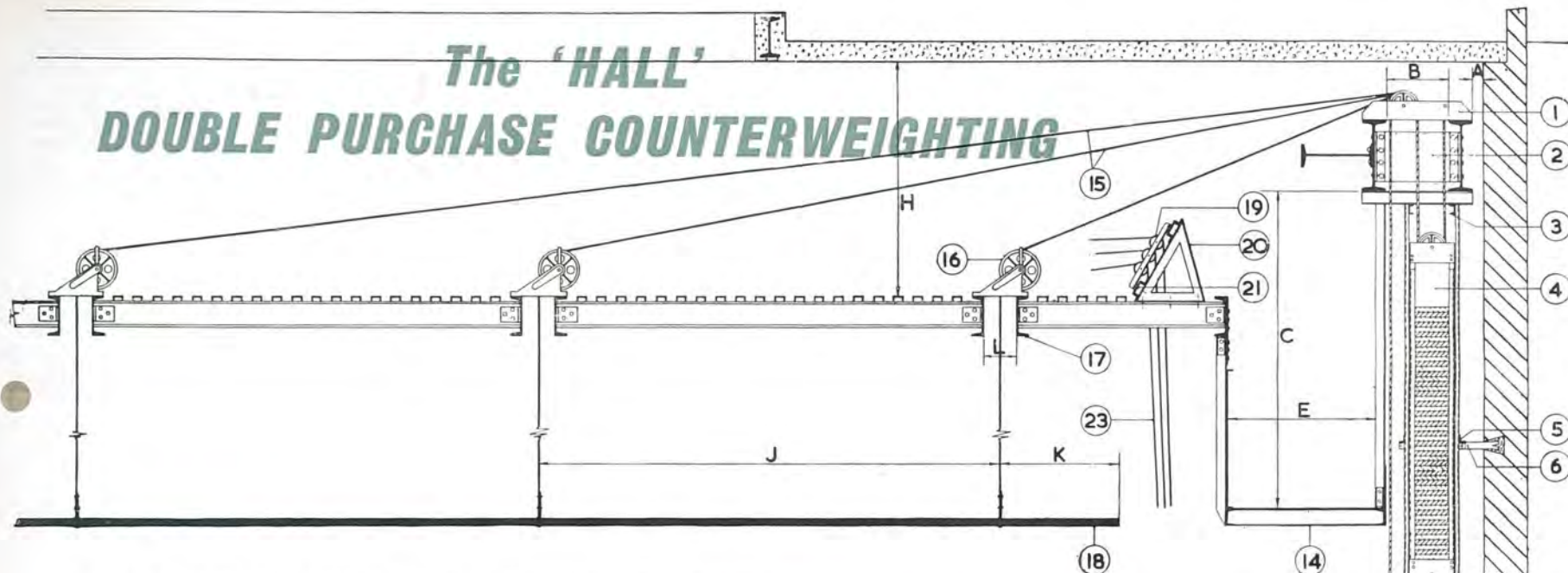
COUNTERWEIGHTING is the most satisfactory way of flying heavy sets, etc., on a theatre stage. Lighting battens, curtain tracks and borders are easily suspended or adjusted to the required height on a "HALL" counterweight system. Single-purchase counterweighting should be employed where the travel available for the weight cradle is equivalent to that required for the barrels.

KEY LETTER	SINGLE PURCHASE
A	3"
B	1' 8"
C	6' 6"
D	2' 3"
E	3' 6"
F	3' 3"
G	2' 0"
H	6' 6"
J	16' 0"
K	4' 0"
L	10"

KEY NUMBER	DESCRIPTION
1	Head Pulley
2	Head Joists
3	Top Stop Channels
4	Weight Cradle
5	Spacing Bar
6	Caulking Bracket
7	Guide Channel
8	Bottom Rope Return Pulley
9	Bottom Stop Channels
10	Fly Gallery
11	Rope Brake Rail
12	Rope Brake

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The 'HALL' DOUBLE PURCHASE COUNTERWEIGHTING



In Double-purchase systems the weight cradle travels only half the distance travelled by the barrel, but this system requires double the quantity of weights in the cradle.

The efficiency of all counterweighting equipment depends largely on the quality of the pulleys used. "HALL" counterweight systems are provided with accurately machined pulley sheaves fitted with heavy-duty ballraces sealed to prevent the intrusion of dust, and ensure the most efficient and free-running operation.

NOTE: The hauling rope locks (No. 12) may be mounted for operation at stage level if required.

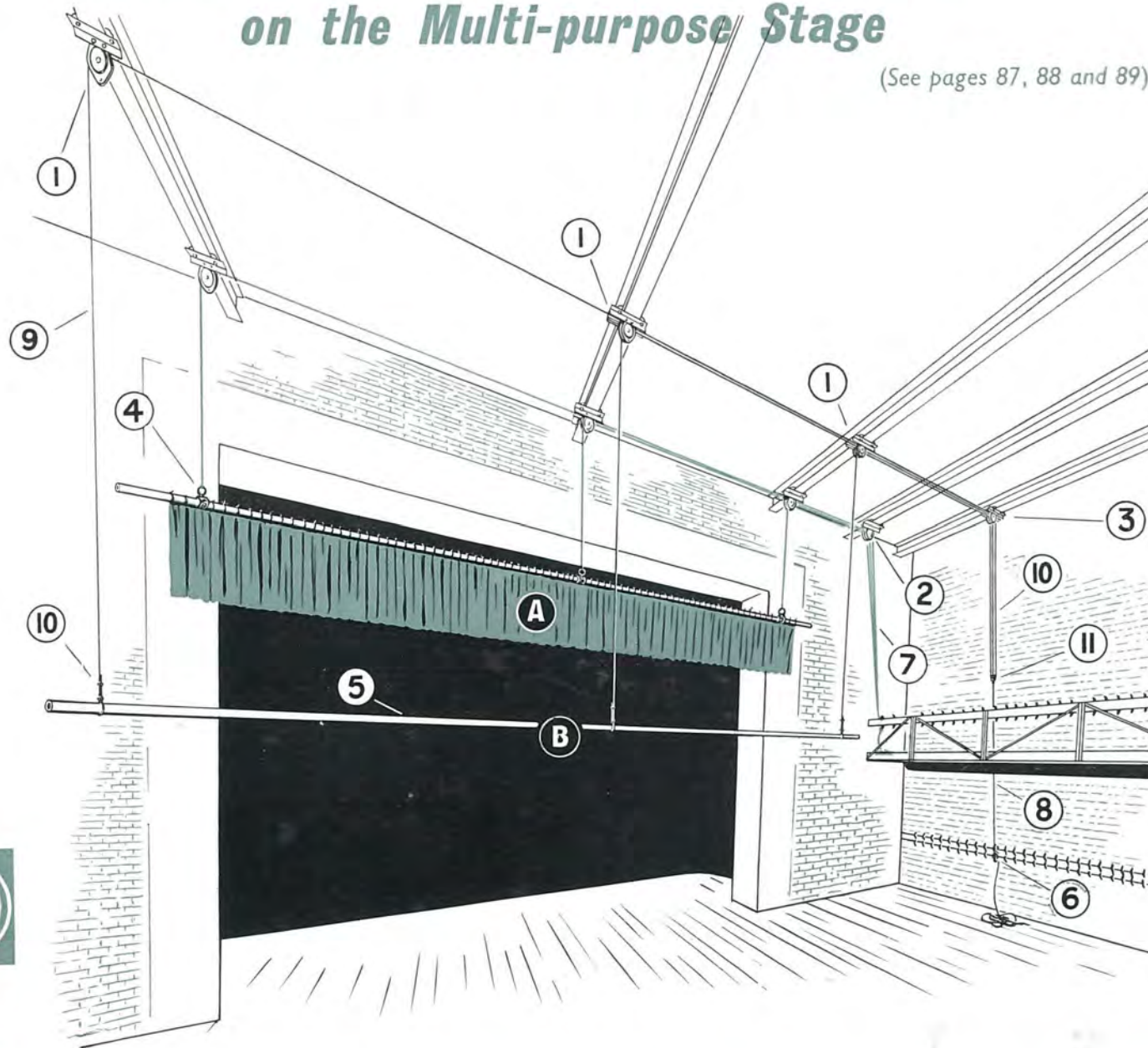
KEY NUMBER	DESCRIPTION
13	Hauling Rope
14	Loading Gallery
15	Suspension Cables
16	Grid Pulley
17	Grid Drop Channels
18	Counterweight Barrel
19	Rope Set Head Pulley
20	Rope Set Head Pulley Bracket
21	Rope Set Head Pulley Channels
22	Flyrail Cleat
23	Suspension Rope for Hand Lines
24	Scenery Pack Rail
25	Guard Panels

KEY LETTER	DOUBLE PURCHASE
A	3"
B	1' 8"
C	7' 6"
D	2' 3"
E	3' 6"
F	3' 3"
G	2' 0"
H	6' 6"
J	16' 0"
K	4' 0"
L	10"

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'HALL' BORDER BARREL & HAND ROPE SETS on the Multi-purpose Stage

(See pages 87, 88 and 89)



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BORDER BARREL SUSPENSION SETS

Masking Borders on multi-purpose and cinema stages are usually suspended on tubular steel barrels hung on cables or hand-ropes.

The illustration shows Barrel 'A' hung on Hand Ropes and Barrel 'B' hung on Cables with a single hauling rope.

The Cable Set 'B' is more suitable for a border in a permanent position. Cables, once "deaded off" are not affected by moisture as are the ropes of Hand Rope sets.

For general guidance in the selection of pulleys for particular applications see page 89.



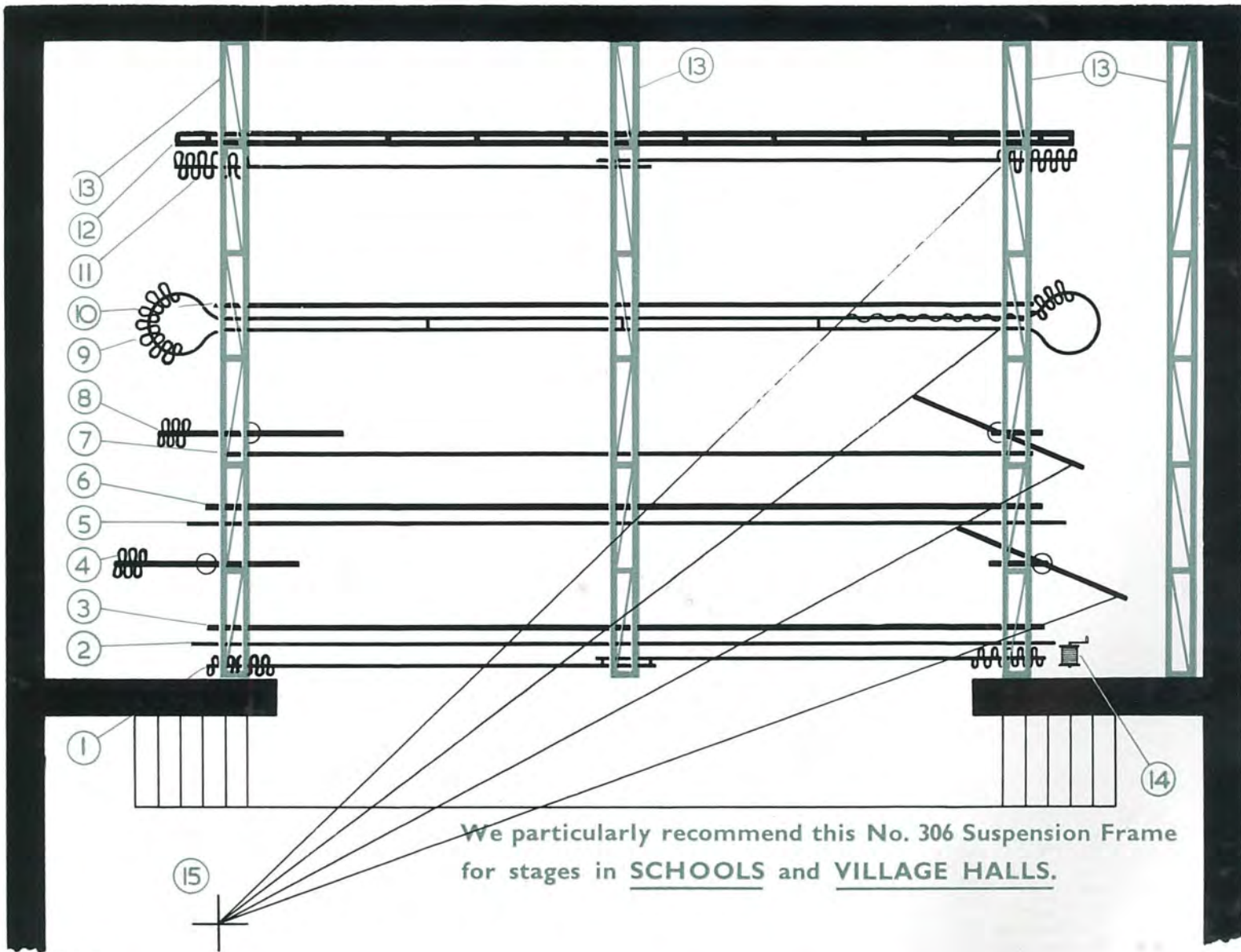
1	Grid Pulley No. 184/3" Single	...	...	...	...	See page 120
2	Grid Pulley No. 184/3" Treble	...	...	...	...	See page 120
3	Grid Pulley No. 184/3" Treble	...	...	...	...	See page 120
4	Suspension Clip No. 232	...	...	...	...	See page 133
5	Barrel No. 642/1½"	...	...	...	...	See page 136
6	Flyrail Cleat No. 135/15"	...	...	...	...	See page 113
7	Hand Ropes No. 341/½" diameter	...	...	...	...	See page 113
8	Hauling Rope No. 341/5/8" diameter	...	...	...	...	See page 113
9	Suspension Cable No. 336/¾" circumference	...	...	...	...	See page 131
10	Cable Grip No. 640/⅛"	...	...	...	...	See page 131
11	Swivel Clew No. 313/5/16"	...	...	...	...	See page 130

Sight Lines and Masking

For general guidance on Sight Lines and Masking

see diagram on pages 98 and 99.

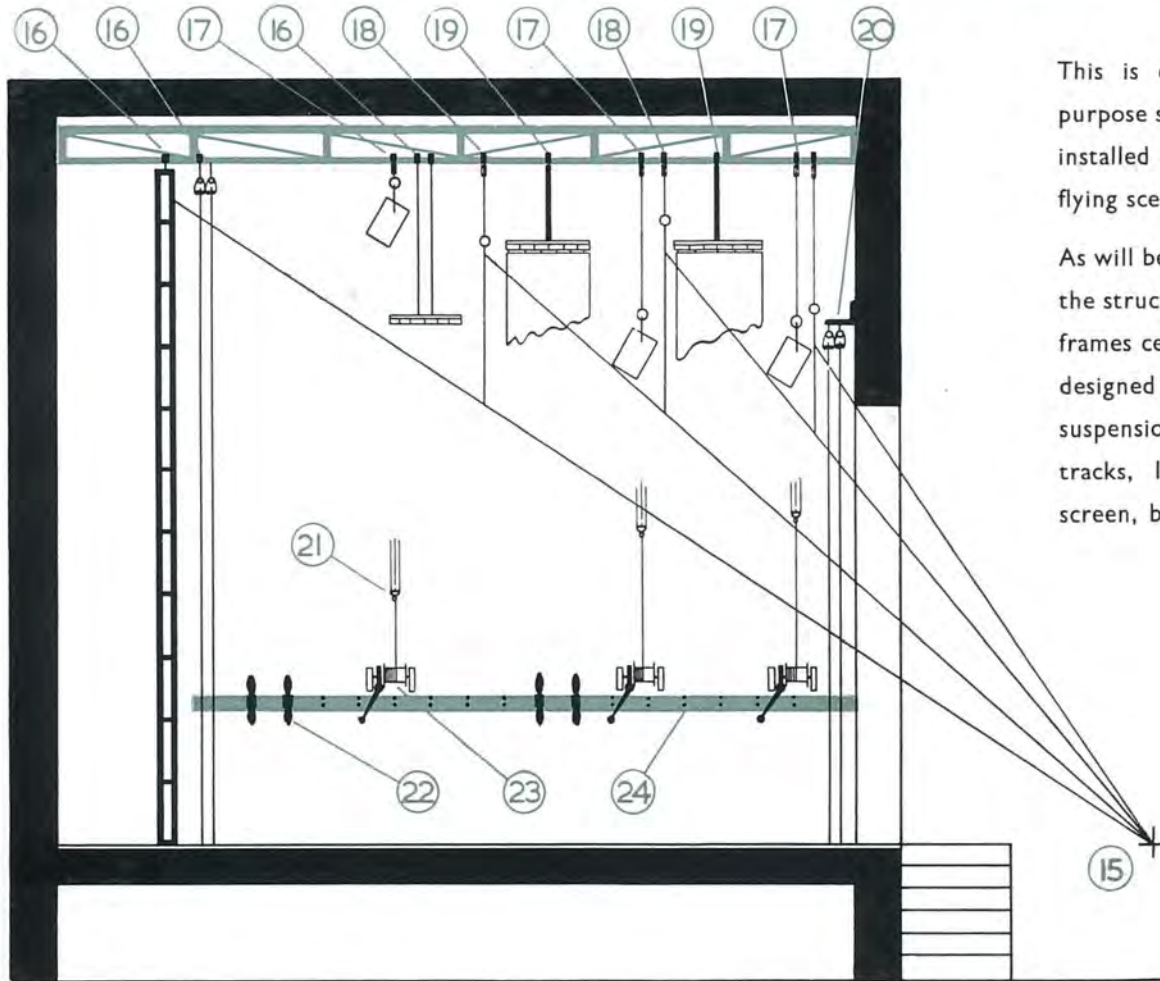
'HALL' No. 306 TUBULAR SUSPENSION FRAMES



We particularly recommend this No. 306 Suspension Frame for stages in SCHOOLS and VILLAGE HALLS.

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The 'HALL' No. 306 Tubular Suspension Frames



This is designed for the small general purpose stage where a safety curtain is not installed and no provision is required for flying scenery.

As will be seen from the plan and elevation the structure consists of a series of tubular frames cemented or bracketed in position, designed for attaching all pulleys and suspension clips carrying the curtain tracks, lighting fittings, roll-up cinema screen, border barrels and swivel arms.

1. Front Curtain Track (see pages 1, 9).
2. Border Barrel (see page 136).
3. Electric Lighting Fittings Bar (see page 136).
4. Swivel Arm (see page 100).
5. Border Barrel (see page 136).
6. Electric Lighting Fittings Bar (see page 136).
7. Cinema Screen Barrel (see page 136).
8. Swivel Arm (see page 100).

9. Banjo Curtain Track (see pages 18, 20).
10. Electric Lighting Fittings Barrel (see page 136).
11. Curtain Track (see pages 1, 9).
12. Cyclorama Frame.
13. Suspension Frames No. 306.
14. Winch for Front Curtains No. 250 (see page 23).
15. Sight Line View Point.
16. Suspension Clip and Bolt No. 349 (see page 109).

17. Pulley No. 307 (see page 109).
18. Pulley No. 307 (see page 109).
19. Swivel Arm Bracket (see page 100).
20. Front Track Brackets No. 288 (see page 4).
21. Swivel Clew No. 313 (see page 130).
22. Fly-rail Cleat No. 135 (see page 113).
23. Worm Hoist No. 329 (see pages 128, 129).
24. Cleat Rail.

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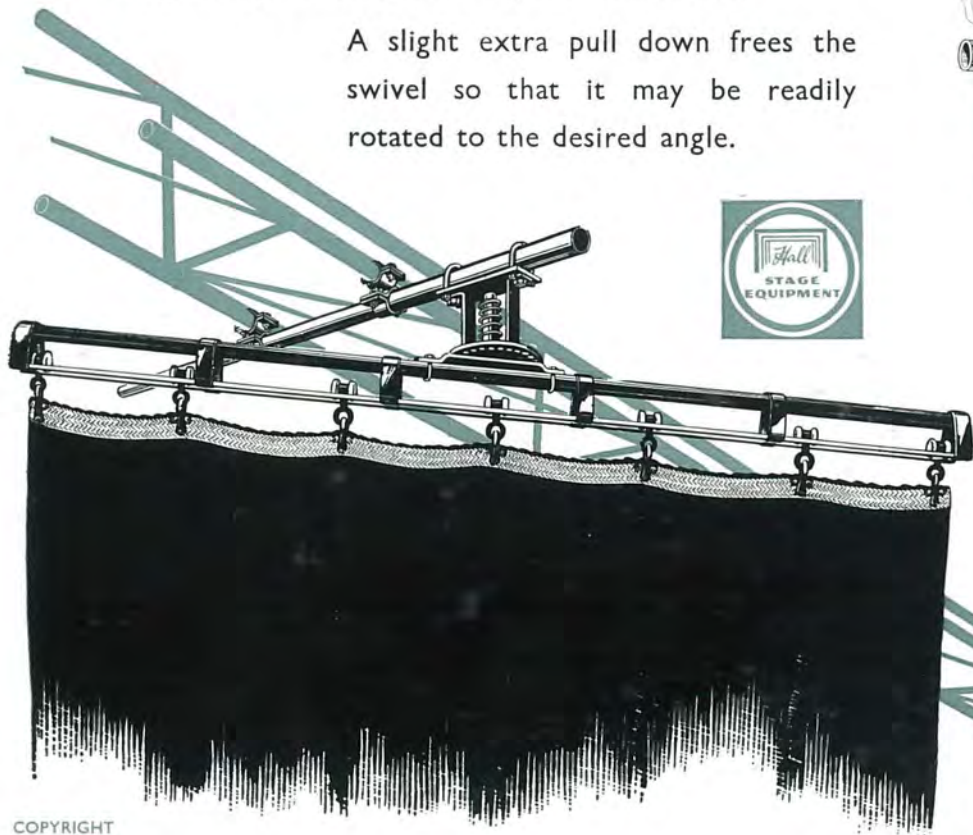
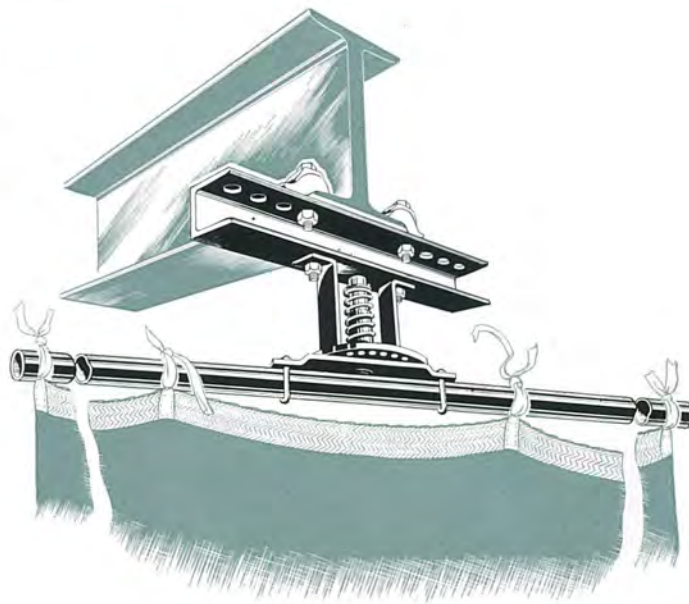
The 'HALL' No. 382 SELF LOCKING SWIVEL ARM

For Swivel Leg Curtains

DESIGNED FOR CINEMA, SCHOOL AND MULTI-PURPOSE STAGES

As will be seen from the illustrations the swivel assembly is held up into its locked position by a suitable spring which is strong enough to carry the weight of the curtain.

A slight extra pull down frees the swivel so that it may be readily rotated to the desired angle.



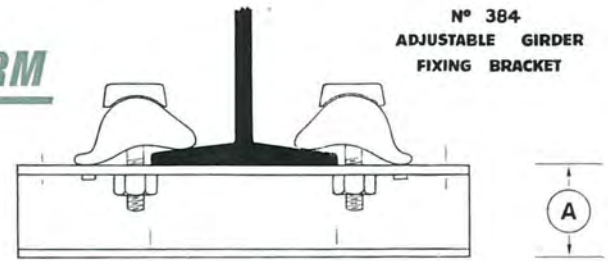
View of swivel leg
curtain mounted on
No. 306 Suspension
Frame. See pages
98 and 99.



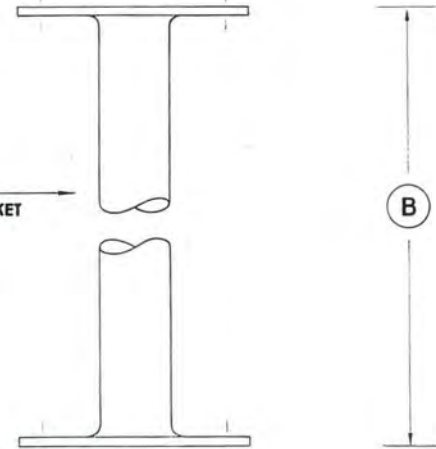
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The 'HALL' No. 382 SELF LOCKING SWIVEL ARM

FOR SWIVEL LEG CURTAINS

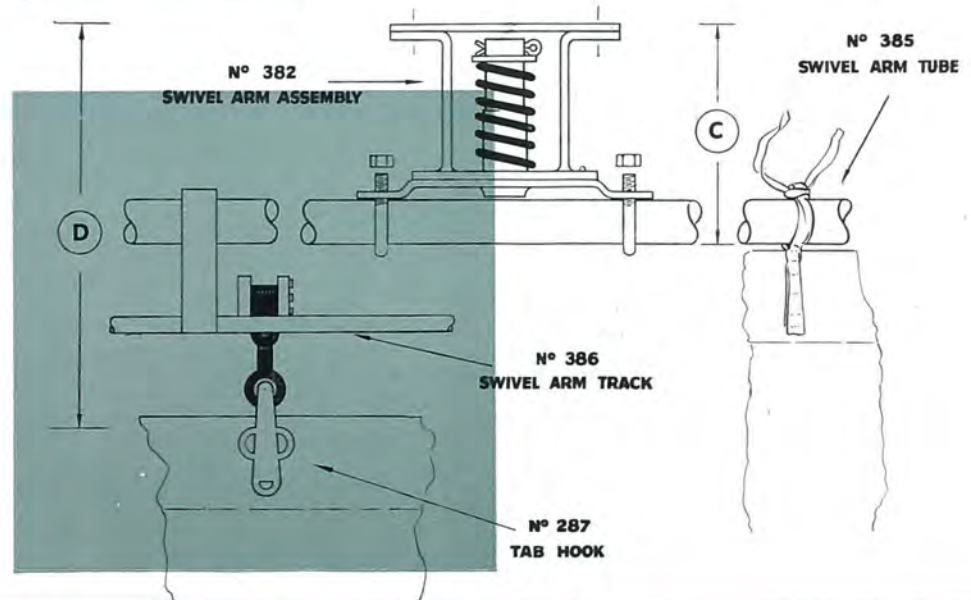


N° 383
EXTENSION BRACKET



1	No. 382 Swivel with No. 386 Curtain Track.	A	2"
2	No. 382 Swivel with No. 384 Girder Bracket.	B	As ordered.
3	No. 383 Extension Bracket.	C	4 $\frac{3}{4}$ "
4	No. 382 Swivel mounted under a wood joist.	D	9"

On most stages three pairs of 6-ft. swivel legs will be found to be sufficient. The stage on page 98 has been set out with only two pairs in order to show use of the banjo curtain track (No. 9) for masking as well as setting. We strongly recommend the use of the swivel leg with track No. 386. To be able to quickly and easily clear the stage is a great asset.



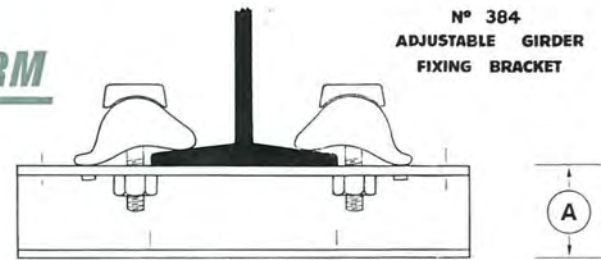
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The 'HALL' No. 382 SELF LOCKING SWIVEL ARM

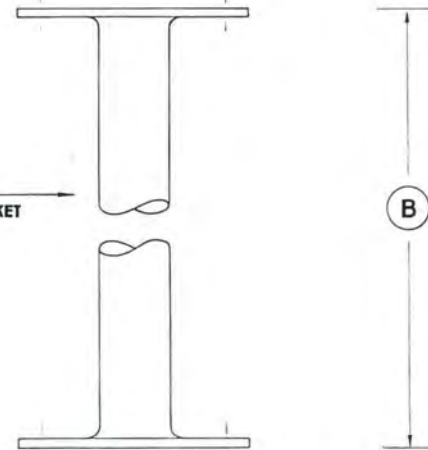
FOR SWIVEL LEG CURTAINS



N° 384
ADJUSTABLE GIRDER
FIXING BRACKET

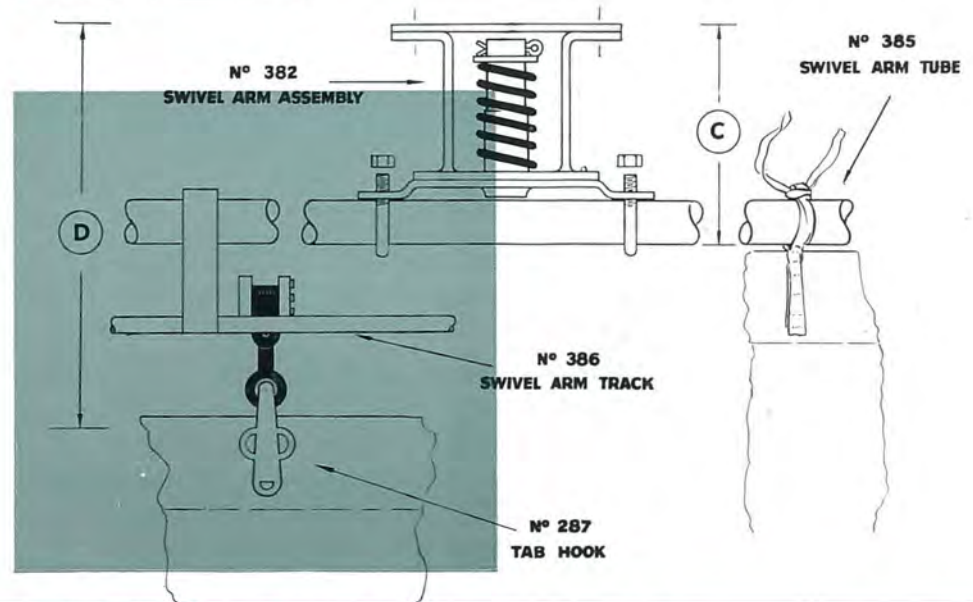


N° 383
EXTENSION BRACKET



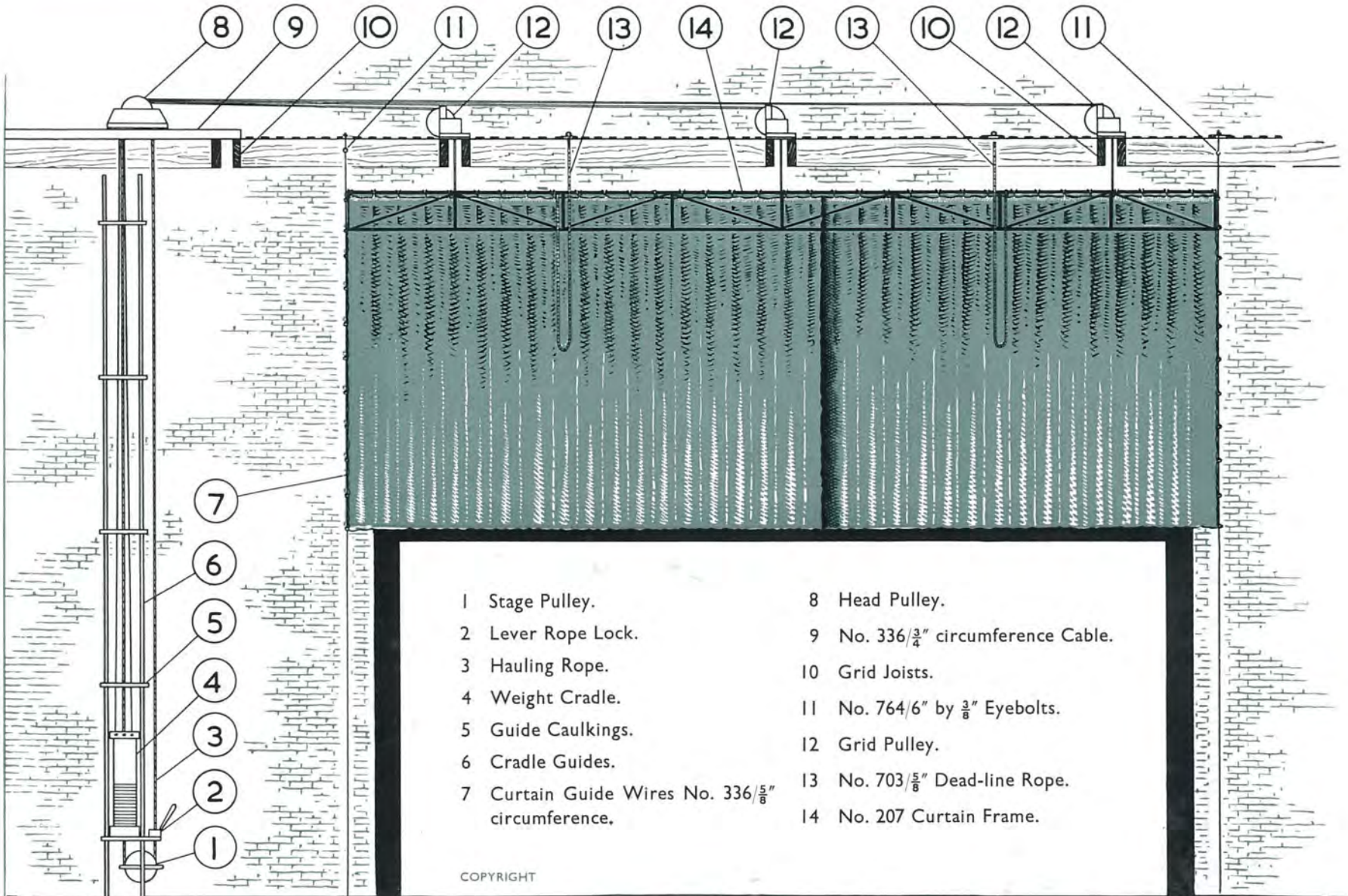
1	No. 382 Swivel with No. 386 Curtain Track.	A	2"
2	No. 382 Swivel with No. 384 Girder Bracket.	B	As ordered.
3	No. 383 Extension Bracket.	C	4 $\frac{3}{4}$ "
4	No. 382 Swivel mounted under a wood joist.	D	9"

On most stages three pairs of 6-ft. swivel legs will be found to be sufficient. The stage on page 98 has been set out with only two pairs in order to show use of the banjo curtain track (No. 9) for masking as well as setting. We strongly recommend the use of the swivel leg with track No. 386. To be able to quickly and easily clear the stage is a great asset.



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The 'HALL' No. 206 ACT DROP SET



- | | |
|--|---|
| 1 Stage Pulley. | 8 Head Pulley. |
| 2 Lever Rope Lock. | 9 No. 336 $\frac{3}{4}$ " circumference Cable. |
| 3 Hauling Rope. | 10 Grid Joists. |
| 4 Weight Cradle. | 11 No. 764 $\frac{6}{8}$ " by $\frac{3}{8}$ " Eyebolts. |
| 5 Guide Caulkings. | 12 Grid Pulley. |
| 6 Cradle Guides. | 13 No. 703 $\frac{5}{8}$ " Dead-line Rope. |
| 7 Curtain Guide Wires No. 336 $\frac{5}{8}$ " circumference. | 14 No. 207 Curtain Frame. |

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THE ACT-DROP

A Flying Front Curtain or Act-drop is the traditional Theatre Front Curtain. Because of its importance for good stage presentation the Act-drop equipment should be **Reliable, Silent and Easy to Work.**

The 'HALL' Counterweighted Act-drop set covers all these requirements. We manufacture two designs.

No. 205 ELECTRIC VARIABLE SPEED with Emergency Hand Control

No. 206 HAND ROPE OPERATED - (as illustrated opposite)



Both sets are provided with 12-in. diam. ball-bearing sheaves, rigid channel guides, tubular curtain frame and rubber-tyred rollers for the counterweight cradle.

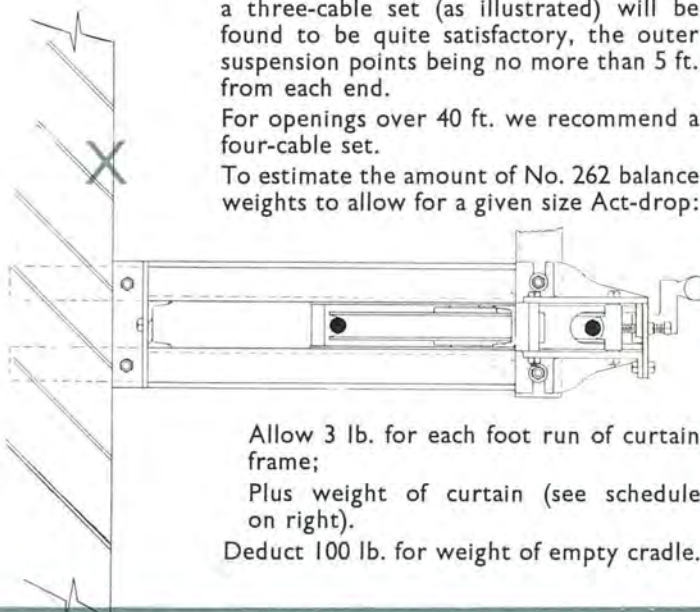
The usual position for an Act-drop set is on the prompt side (actors' left) of the stage, as near to the prompt corner as possible.

The diagram on page 105 shows the guides caulked in to the proscenium wall. This is the usual practice but often the stage switchboard or other equipment prevents this. The alternative is for the guides to be mounted on the side wall as shown at X below. When ordering please indicate X or Y arrangement.

For Proscenium openings up to 40 ft. wide a three-cable set (as illustrated) will be found to be quite satisfactory, the outer suspension points being no more than 5 ft. from each end.

For openings over 40 ft. we recommend a four-cable set.

To estimate the amount of No. 262 balance weights to allow for a given size Act-drop:



Allow 3 lb. for each foot run of curtain frame;

Plus weight of curtain (see schedule on right).

Deduct 100 lb. for weight of empty cradle.

APPROXIMATE WEIGHTS OF A PAIR OF CURTAINS
OF VARIOUS SIZES AND MATERIALS

Drop of Curtains	Proscenium Size	Heavy Velour (Lined Sateen)	Medium Velour (Lined Sateen)	Satin (Lined Sateen)
26 ft.	50 ft.	268 lb.	236 lb.	203 lb.
24 ft.	45 ft.	225 lb.	198 lb.	171 lb.
20 ft.	35 ft.	149 lb.	132 lb.	114 lb.
16 ft.	25 ft.	89 lb.	79 lb.	69 lb.
14 ft.	20 ft.	63 lb.	56 lb.	49 lb.

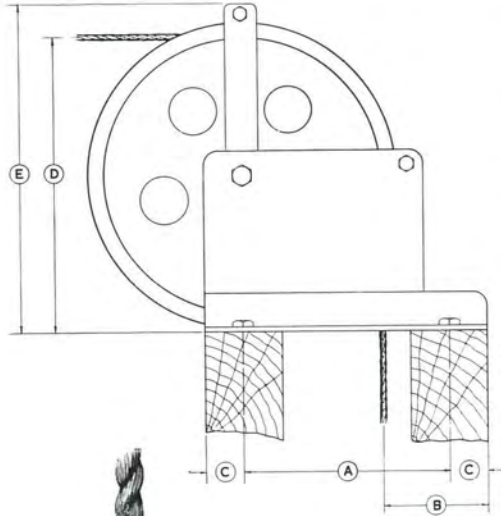
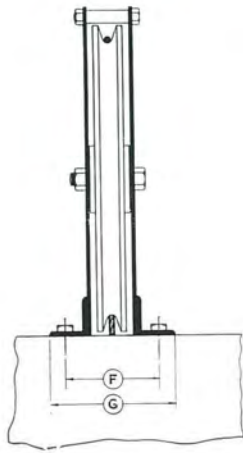
The above weights include chain-weighting and fullness.

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The 'HALL' No. 206 ACT-DROP SET



No. 209
Counterweight
Cradle



A -	8"
B -	4"
C -	2"
D -	11 3/4"
E -	1' 1 1/2"
F -	3 3/4"
G -	5 3/4"

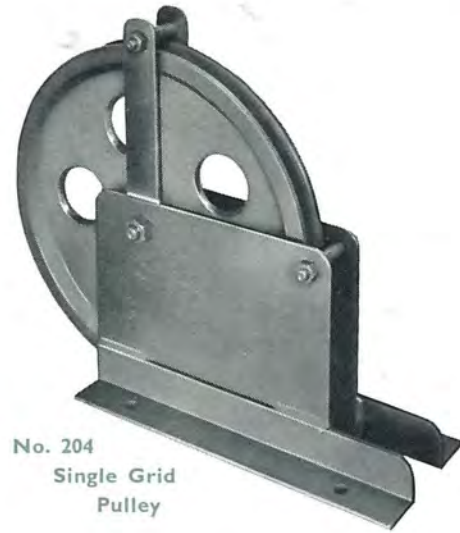


No. 262
Balance Weight
24 lbs. each



No. 267
Lever Rope
Lock

No. 273
Hauling Rope



No. 204
Single Grid
Pulley

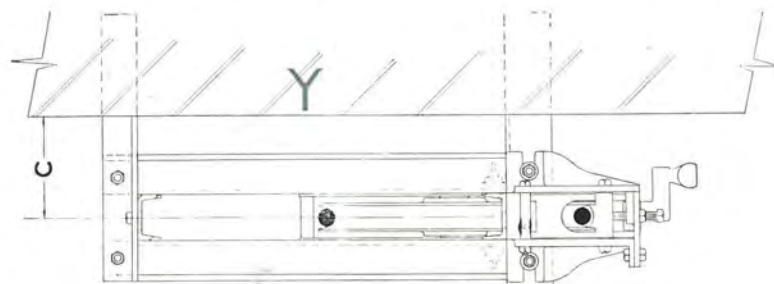
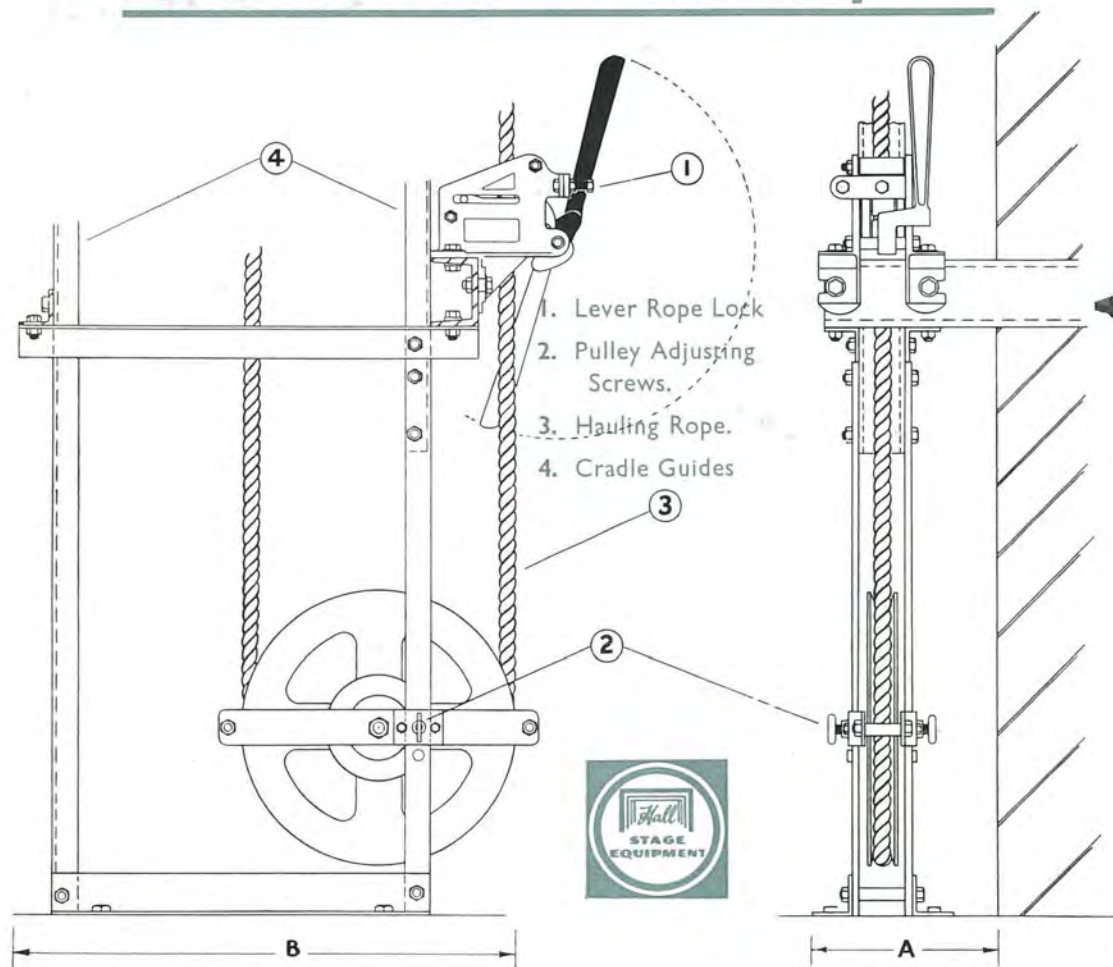


Head Pulley
No. 269 Three-way and Rope
No. 272 Four-way and Rope



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The 'Hall' No. 206 Act-Drop Set



A	7½"	No. 266	Stage Pulley
B	1' 9½"	No. 267	Rope Lock
C	4½"	No. 208	Cradle Guides

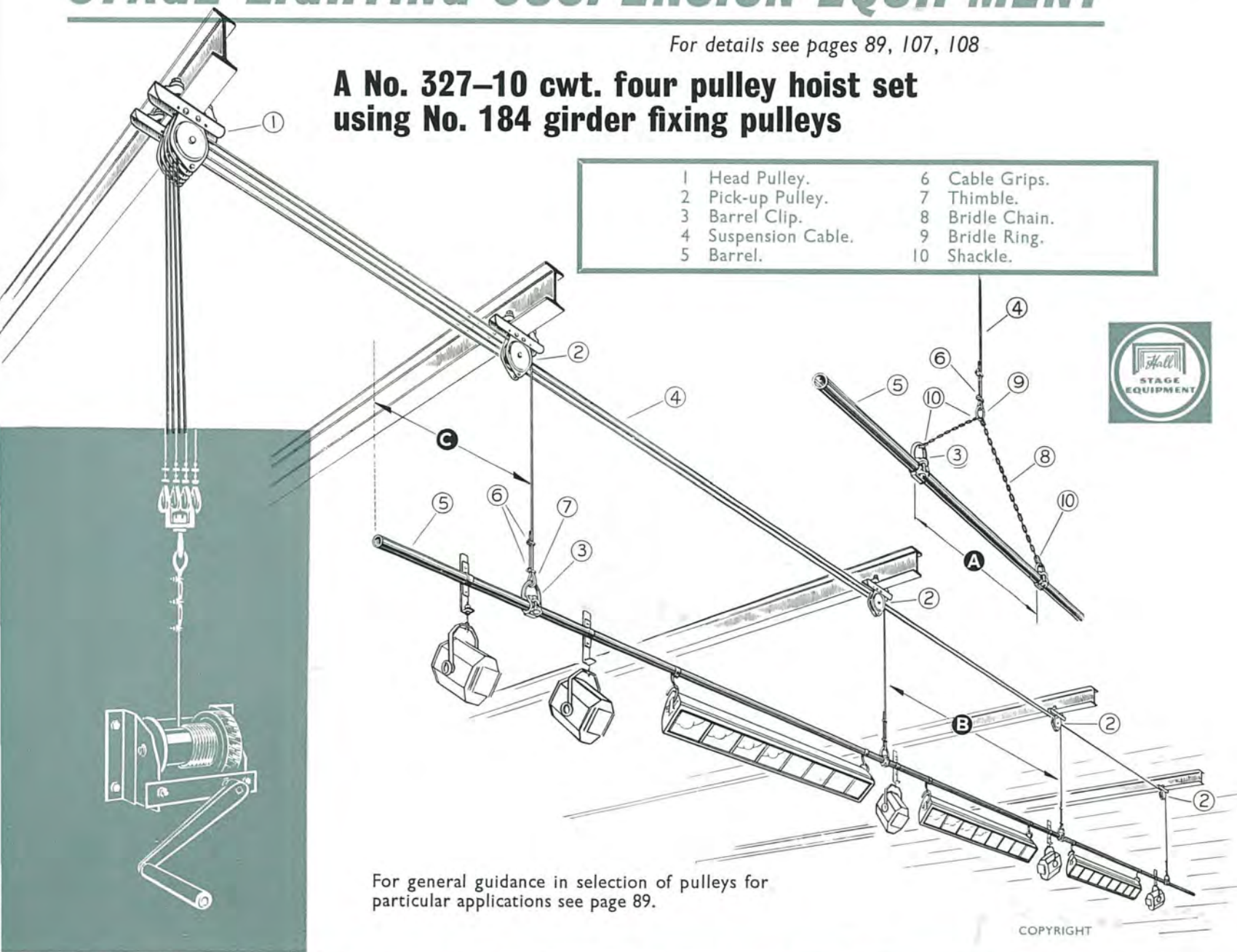
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STAGE LIGHTING SUSPENSION EQUIPMENT

For details see pages 89, 107, 108

A No. 327-10 cwt. four pulley hoist set using No. 184 girder fixing pulleys

- | | | | |
|---|-------------------|----|---------------|
| 1 | Head Pulley. | 6 | Cable Grips. |
| 2 | Pick-up Pulley. | 7 | Thimble. |
| 3 | Barrel Clip. | 8 | Bridle Chain. |
| 4 | Suspension Cable. | 9 | Bridle Ring. |
| 5 | Barrel. | 10 | Shackle. |



For general guidance in selection of pulleys for particular applications see page 89.

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The 'HALL' No. 327 Stage Lighting Suspension Equipment

All stage lighting equipment should be provided with raise and lower suspension gear.

The most satisfactory method is by a counterweight set (see pages 94 and 95), but a self-sustaining hoist as shown will be found to be a satisfactory substitute.

General recommendations of suitable hoist sets for Lighting Equipment for various proscenium openings.

For Proscenium Openings up to 22 ft. wide	For Proscenium Openings 23 ft. to 36 ft. wide	For Proscenium Openings over 36 ft. wide
3-cwt. capacity Hoist. Three Suspension Points. 3" Pulleys. Barrel 6 ft. wider than opening.	5-cwt. capacity Hoist. Three Suspension Points. 4" Pulleys. Barrel 7 ft. wider than opening.	10-cwt. capacity Hoist. Four Suspension Points. 6" Pulleys. Barrel 8 ft. wider than opening.

The single hauling cable is by far the most satisfactory method.



Note: The distance the barrel (5) may be raised and lowered is governed by the distance between the Head Pulley (1) and the Hoist. Where this is restricted we suggest the use of a multi-barrel hoist as shown, the suspension cables winding straight on to the hoist.

Chain Bridle

In the following instances it is advisable to include chain bridles in a suspension set. (See diagram on opposite page.)

If size B exceeds 17 ft. then a chain bridle A should be included in the central pick-ups.

If size C exceeds 5 ft. then chain bridles A should be included in the end pick-ups.

When using bridles on suspension sets care should be taken to see that the height of the bridle is at least half the width of A. See diagram page 106.

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PART	CATALOGUE NO.	CAPACITY OF HOIST						PAGE
		3 cwt. 1 drum	5 cwt. 1 drum	5 cwt. 3 drums	10 cwt. 1 drum	10 cwt. 3 drums	10 cwt. 4 drums	
Self-sustaining Hoist	327	1						128
Self-sustaining Hoist	328 or 330		1					128 & 129
Self-sustaining Hoist	332			1				129
Self-sustaining Hoist	329 or 331				1			128 & 129
Self-sustaining Hoist	333					1		129
Self-sustaining Hoist	334						1	129
Barrel 1½" Gas	641	1	1	1	1	1	1	136
Suspension Cable	336	⅝" circ.	¾" circ.	¾" circ.	⅞" circ.	⅞" circ.	⅞" circ.	131
Main Cable	336	⅞" circ.	1" circ.	—	1½" circ.	—	—	131
Bulldog Grips	640/⅜"	12						131
Bulldog Grips	640/¼"	3	12	6	12	6	8	131
Bulldog Grips	640/⅝"		3					131
Bulldog Grips	640/⅜"				3			131
Thimbles	625 ¼"	3	3	3	3	3	4	131
Barrel Clips	593	3	3	3	3	3	4	135
Shackles	592/¼"	3	3	3				131
Shackles	592/⅝"				3	3	4	131
3" Suspension Pulleys ★	181, 182, 183, 184, 307, 245	3						Below
4" Suspension Pulleys	181, 182, 183, 184, 245		3	3				Below
6" Suspension Pulleys	181, 182, 183, 184				3	3	4	Below
3" Head Pulley	181, 182, 183, 184, 307, 245	1						Below
4" Head Pulley	181, 182, 183, 184, 245		1	1				Below
6" Head Pulley	181, 182, 183, 184				1	1	1	Below
Swivel Clew	313/⅝"	1						130
Swivel Clew	313/½"		1					130
Swivel Clew	313/⅜"				1			130



★ Alternative Pulleys: See No. 181 p. 111 | No. 182 p. 126 | No. 183 p. 115 | No. 184 p. 120 | No. 243 p. 122 | No. 244 p. 124 | No. 245, p. 117 | No. 307 p. 109

Bridles Extra material required per bridle (see note on page 107). Chain, shackle and barrel clip (one of each.)

For hauling away the electric cables when the barrel is in a raised position we suggest the following:—

- One No. 243/3" Pulley. See page 122.
- One No. 135/12" Cleat. See page 113.
- One length of No. 8 Sashline. See page 113.

The 'HALL' No. 307 FIT-UP PULLEY

Designed for clipping to Tubular Structures

As will be seen from the illustration the pulley is provided with a "U" Bolt Fixing for clamping in position with the pulley at right angles to the supporting tube.

The sheaves are fitted with self-oiling bushes and will give long trouble-free service.

No. 307 Pulleys are made in the following sizes and types.

2" Sheave suitable for No. 6 Sashline or $\frac{3}{8}$ " circ. Cable
3" Sheave suitable for $\frac{1}{2}$ " diam. Hand Rope or $\frac{5}{8}$ " circ. Cable
4" Sheave suitable for $\frac{5}{8}$ " diam. Hand Rope or $\frac{3}{4}$ " circ. Cable



Singles, Doubles and Trebles in all the above sizes may be supplied to clamp either to $1\frac{1}{2}$ " OUTSIDE diameter steel tube or $1\frac{1}{2}$ " gas barrel (i.e. scaffold tubing) **as ordered.**

For general guidance in selection of pulleys for particular applications see page 89.

No. 307 for clipping to $1\frac{1}{2}$ " Tube.

No. 307a for clipping to $1\frac{7}{8}$ " Tube ($1\frac{1}{2}$ " Gas).



No. 349
Eyebolt
Clip

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The 'HALL' No. 349 Eyebolt Clip

is designed to clip to a tubular fit-up or to a No.

306 Suspension Frame. (See page 99.)

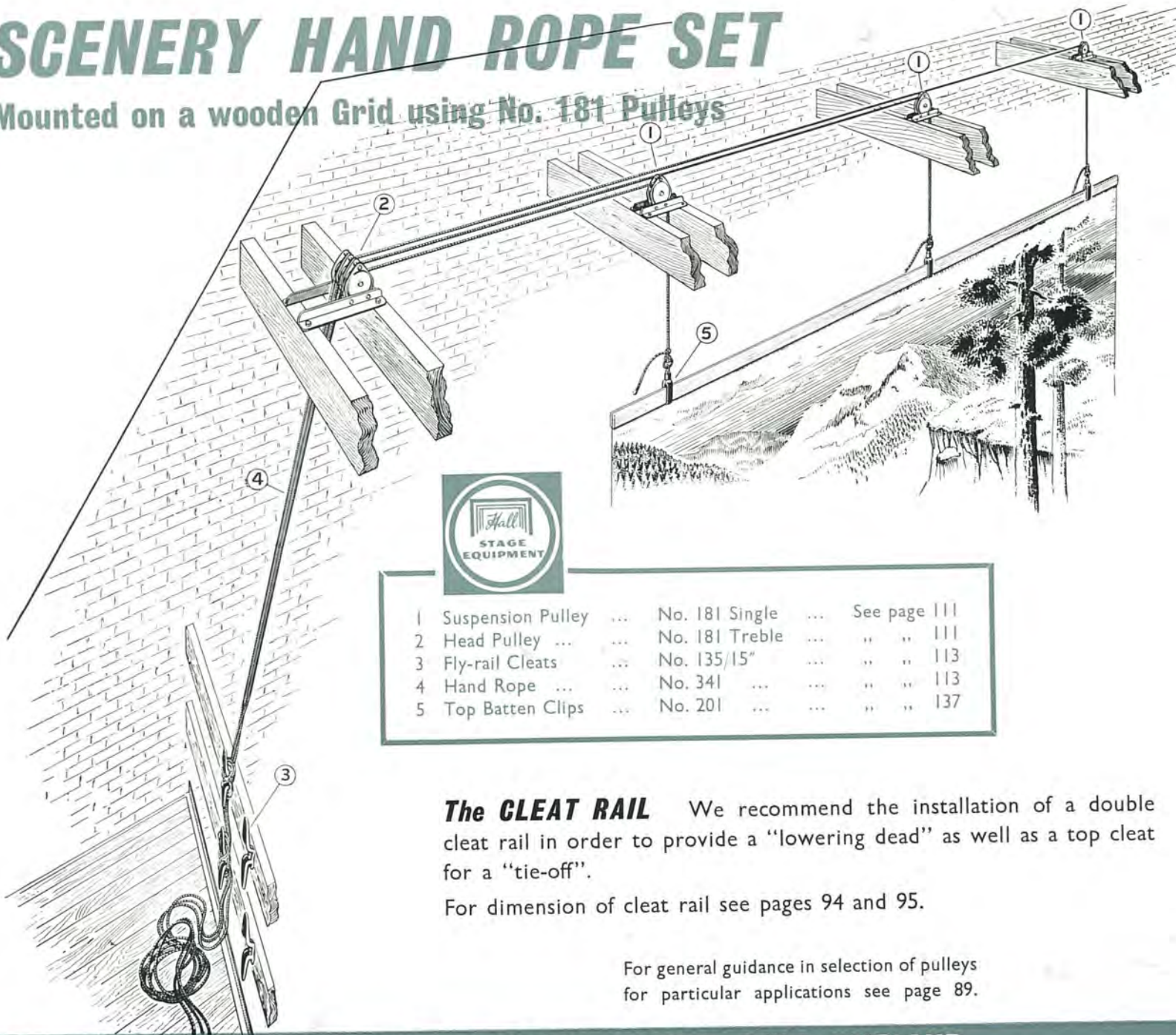
These clips are made in two sizes and BOTH SIZES are suitable for either $\frac{1}{4}$ " or $\frac{5}{16}$ " eyebolts.

No. 349A to clip $1\frac{1}{2}$ " Steel Tube. No. 349B to clip $1\frac{1}{2}$ " Gas Barrel.

They are useful for the suspension of Curtain Tracks, Cyclorama Frames or any equipment where a fine adjustment is needed.

SCENERY HAND ROPE SET

Mounted on a wooden Grid using No. 181 Pulleys



1	Suspension Pulley	...	No. 181 Single	...	See page 111
2	Head Pulley	...	No. 181 Treble	...	" " 111
3	Fly-rail Cleats	...	No. 135/15"	...	" " 113
4	Hand Rope	...	No. 341	...	" " 113
5	Top Batten Clips	...	No. 201	...	" " 137

The CLEAT RAIL We recommend the installation of a double cleat rail in order to provide a "lowering dead" as well as a top cleat for a "tie-off".

For dimension of cleat rail see pages 94 and 95.

For general guidance in selection of pulleys for particular applications see page 89.

The 'HALL' No. 181 GRID PULLEY

For Bolting or Coach-screwing on to a Wooden Grid

These pulleys are designed for Scenery Hand Lines, Border Barrel Sets and Stage Lighting Suspension Sets.

The Sheaves are provided with self-oiling bushes and will give long trouble-free service.



No. 181 Grid Pulleys are manufactured with either 3-in., 4-in. or 6-in. sheaves and in Single, Double, Treble or Fourway assemblies. They are also manufactured with two lengths of angles.

No. 181A with angles 11 in. overall. No. 181B with angles 1 ft. 5 in. overall.

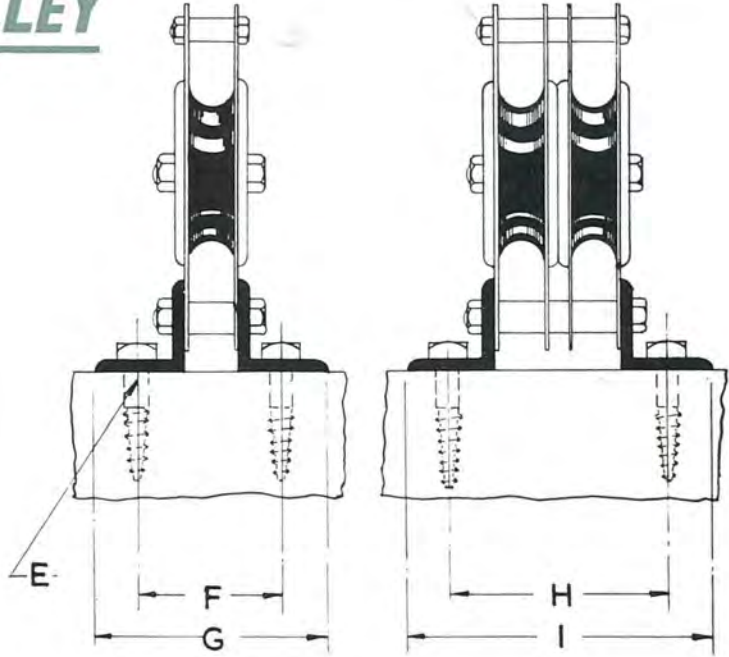
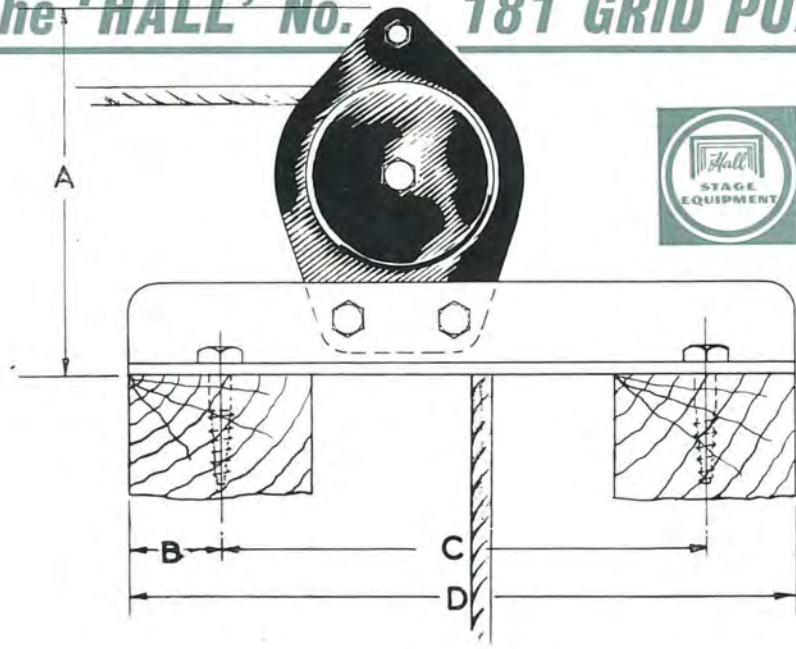
The sheaves are suitable for the following Cables and Hand Ropes.

3" Sheave	4" Sheave	6" Sheave
$\frac{1}{2}$ " diam. Hand Rope	$\frac{5}{8}$ " dia. Hand Rope	$\frac{5}{8}$ " diam. Hand Rope
$\frac{5}{8}$ " circ. Cable	$\frac{3}{4}$ " circ. Cable	$\frac{7}{8}$ " circ. Cable

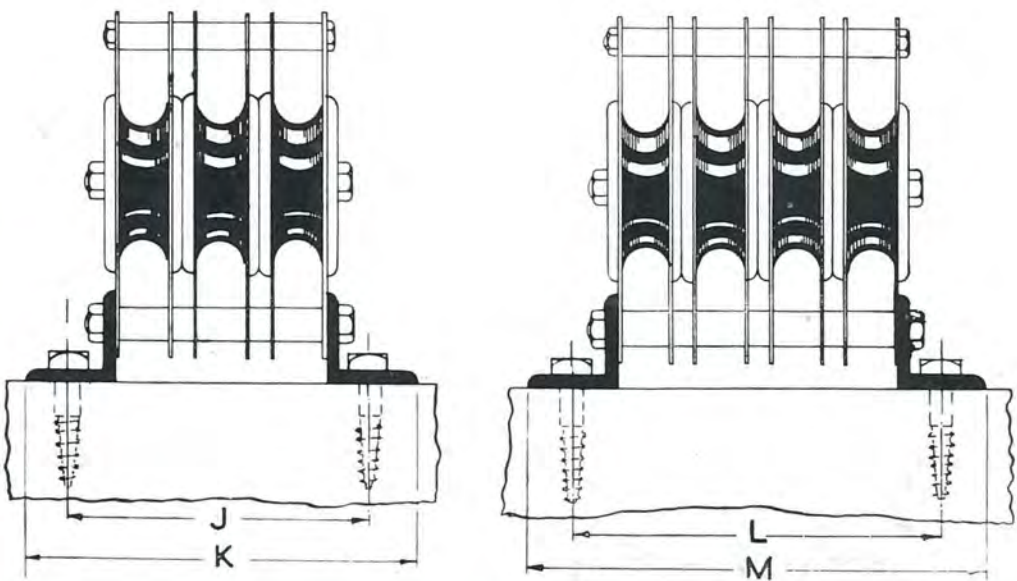
For general guidance in selection of pulleys for particular applications see page 89.

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The 'HALL' No. 181 GRID PULLEY



	3" Pulleys	4" Pulleys	6" Pulleys
A	6 $\frac{1}{16}$ "	7 $\frac{3}{16}$ "	9 $\frac{1}{16}$ "
B	1 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "	1 $\frac{1}{2}$ "
C	8" or 1' 2"	8" or 1' 2"	8" or 1' 2"
D	11" or 1' 5"	11" or 1' 5"	11" or 1' 5"
E	$\frac{3}{8}$ " Bolt	$\frac{3}{8}$ " Bolt	$\frac{3}{8}$ " Bolt
F	2 $\frac{5}{16}$ "	2 $\frac{3}{8}$ "	2 $\frac{7}{16}$ "
G	3 $\frac{13}{16}$ "	3 $\frac{7}{8}$ "	3 $\frac{15}{16}$ "
H	3 $\frac{7}{16}$ "	3 $\frac{1}{2}$ "	3 $\frac{11}{16}$ "
I	4 $\frac{15}{16}$ "	5"	5 $\frac{3}{16}$ "
J	4 $\frac{9}{16}$ "	4 $\frac{3}{4}$ "	5"
K	6 $\frac{1}{16}$ "	6 $\frac{1}{4}$ "	6 $\frac{1}{2}$ "
L	5 $\frac{11}{16}$ "	5 $\frac{15}{16}$ "	6 $\frac{3}{16}$ "
M	7 $\frac{3}{16}$ "	7 $\frac{7}{16}$ "	7 $\frac{11}{16}$ "



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ROPES FOR SCENERY HAND LINES

No. 341 Sisal.

No. 342 Manilla.

SCENERY SUSPENSION ROPES (actual sizes)

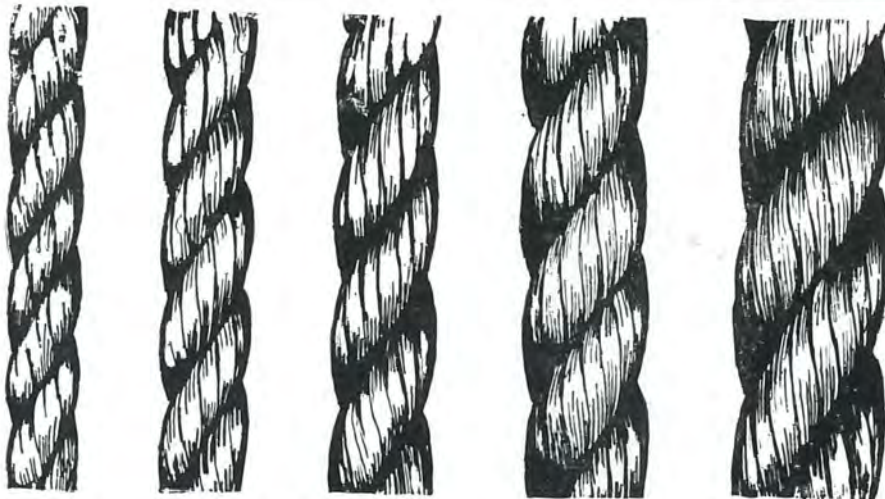
$\frac{3}{8}$ "

$\frac{7}{16}$ "

$\frac{1}{2}$ "

$\frac{5}{8}$ "

$\frac{3}{4}$ " diam.



These ropes are stocked in 720' coils, or can be cut to any required length and the ends whipped ready for use.

No. 135 Flyrail Cleat.
Manufactured in three sizes, 12", 15" and 18".



SASH-LINE (actual sizes)

Nos.

1

2

3

4

5

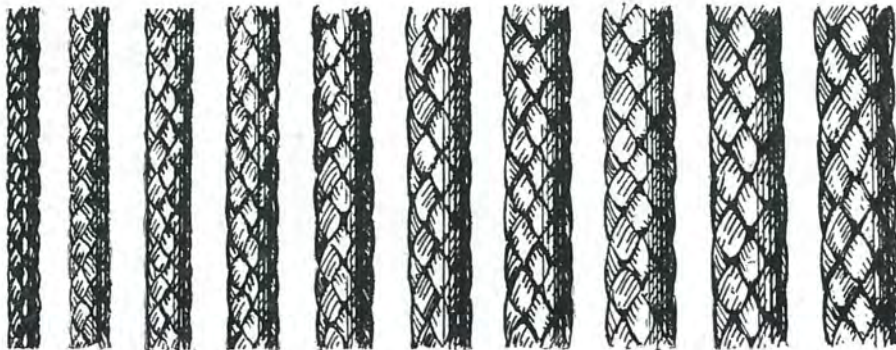
6

7

8

10

12



No. 343. JUTE SASH-LINE is sold in gross yard coils or cut to any required length.

For Scenery "Throw-Lines" use No. 6 CLEATS and No. 5 Sash-Line.



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The 'HALL' No. 183 CEILING FIXING PULLEY



These pulleys are designed for Scenery Hand Lines, Border Barrel Sets and Stage Lighting Suspension Sets.

No. 183 Pulleys may be installed as shown, or may be used above the ceiling in an inverted position. They may also be wall-mounted.

They are manufactured in three sizes. 3-inch Sheave, 4-inch Sheave and 6-inch Sheave with Single, Double, Treble and Fourway assemblies of each size.

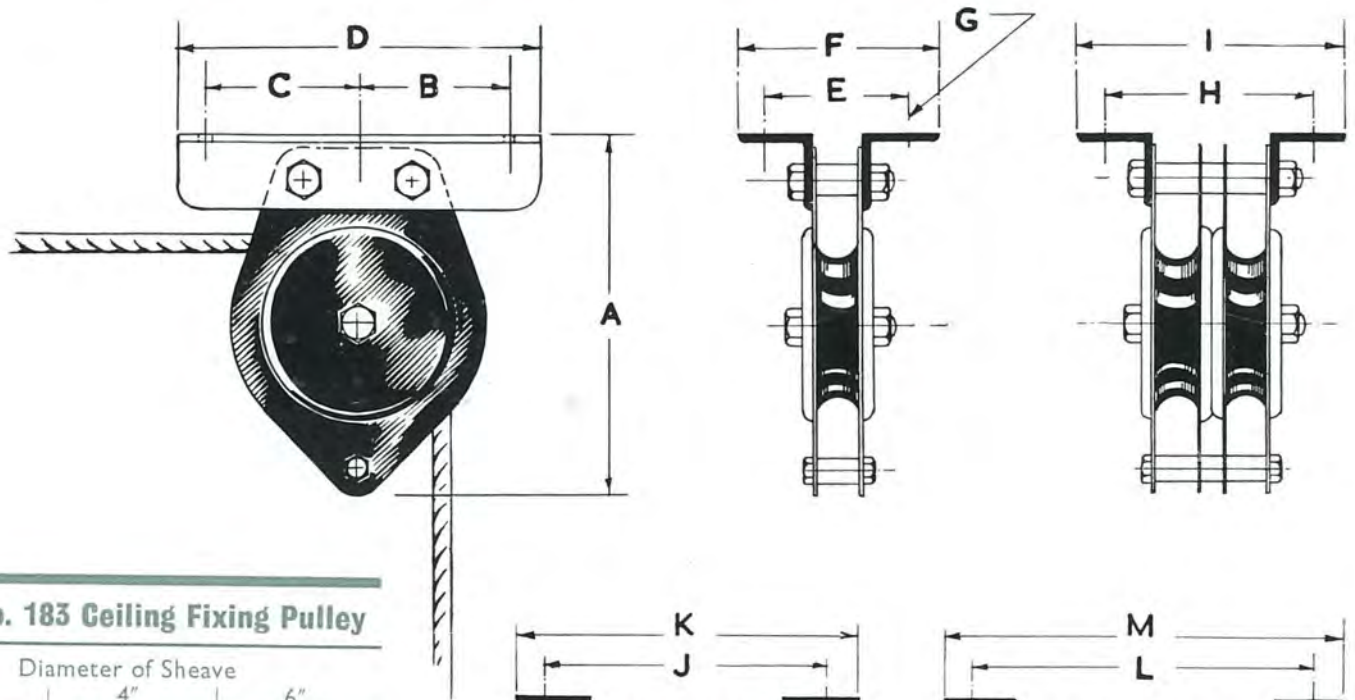
The sheaves are provided with self-oiling bushes and will give long trouble-free service.

The sheaves are suitable for the following
Cables and Hand Ropes.

3" Sheave	4" Sheave	6" Sheave
$\frac{1}{2}$ " diam. Hand Rope $\frac{5}{8}$ " circ. Cable	$\frac{5}{8}$ " diam. Hand Rope $\frac{3}{4}$ " circ. Cable	$\frac{5}{8}$ " diam. Hand Rope $\frac{7}{8}$ " circ. Cable

For general guidance in selection of pulleys for particular applications see page 89.

The 'HALL' No. 183 CEILING FIXING PULLEY



Dimensions of No. 183 Ceiling Fixing Pulley

	Diameter of Sheave		
	3"	4"	6"
A	5 $\frac{15}{16}$ "	6 $\frac{15}{16}$ "	8 $\frac{7}{8}$ "
B	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "
C	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "	2 $\frac{1}{2}$ "
D	6"	6"	6"
E	2 $\frac{5}{16}$ "	2 $\frac{3}{8}$ "	2 $\frac{3}{8}$ "
F	3 $\frac{5}{16}$ "	3 $\frac{3}{8}$ "	3 $\frac{3}{8}$ "
G	$\frac{3}{8}$ " Bolt	$\frac{3}{8}$ " Bolt	$\frac{3}{8}$ " Bolt
H	3 $\frac{7}{16}$ "	3 $\frac{11}{16}$ "	3 $\frac{11}{16}$ "
I	4 $\frac{7}{16}$ "	4 $\frac{11}{16}$ "	4 $\frac{11}{16}$ "
J	4 $\frac{9}{16}$ "	4 $\frac{13}{16}$ "	4 $\frac{13}{16}$ "
K	5 $\frac{1}{2}$ "	5 $\frac{3}{4}$ "	5 $\frac{3}{4}$ "
L	5 $\frac{11}{16}$ "	5 $\frac{15}{16}$ "	5 $\frac{15}{16}$ "
M	6 $\frac{11}{16}$ "	6 $\frac{15}{16}$ "	6 $\frac{15}{16}$ "

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The 'HALL' No. 245 AWNING PULLEY



The AWNING TYPE PULLEY solves many Stage Rigging problems, particularly where the supporting beams or girders are not at right angles to the proscenium or horizontal.

As will be seen from the illustration pulleys may be shackled to either a No. 764 EYEBOLT or for pulleys up to 2½ in. to a No. 338 COACH EYE.

The illustration shows an awning pulley suspended by an eyebolt from a No. 337 GIRDER CLIP.

NOTE : The No. 337 Girder Clip is adjustable to fit any size girder flange from 3 in. to 6 in. inclusive.

The sheaves are provided with self-oiling bushes and will give long trouble-free service.

No. 245 AWNING PULLEYS are manufactured with 1½-in. 2-in., 2½-in., 3-in. and 4-in. Sheaves, and in Single, Double, Treble and Four-way assemblies.

The sheaves are suitable for the following Cables and Hand Ropes.

1½" Sheave	2" Sheave	2½" Sheave	3" Sheave	4" Sheave
No. 4 Sashline ¼" circ. Cable	No. 6 Sashline ⅜" circ. Cable	No. 8 Sashline ½" circ. Cable	½" diam. Rope ⅝" circ. Cable	¾" diam. Rope 1" circ. Cable

For details of Coach Eyes see page 132

" " " Shackles " " 131

" " " Eye Bolts " " 132

For general guidance in selection of pulleys for particular application see page 89.

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The 'HALL' No. 245 AWNING PULLEY

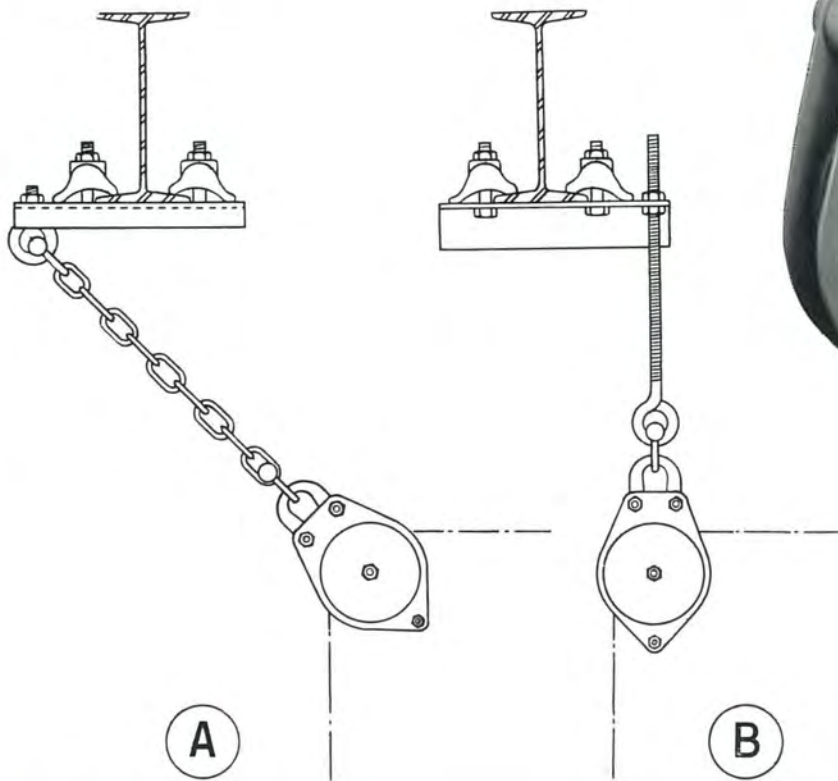
with No. 337 Adjustable Girder Clip



SPECIAL NOTE when sus-
pending No. 245 Awning
Pulleys on EYE-BOLTS.

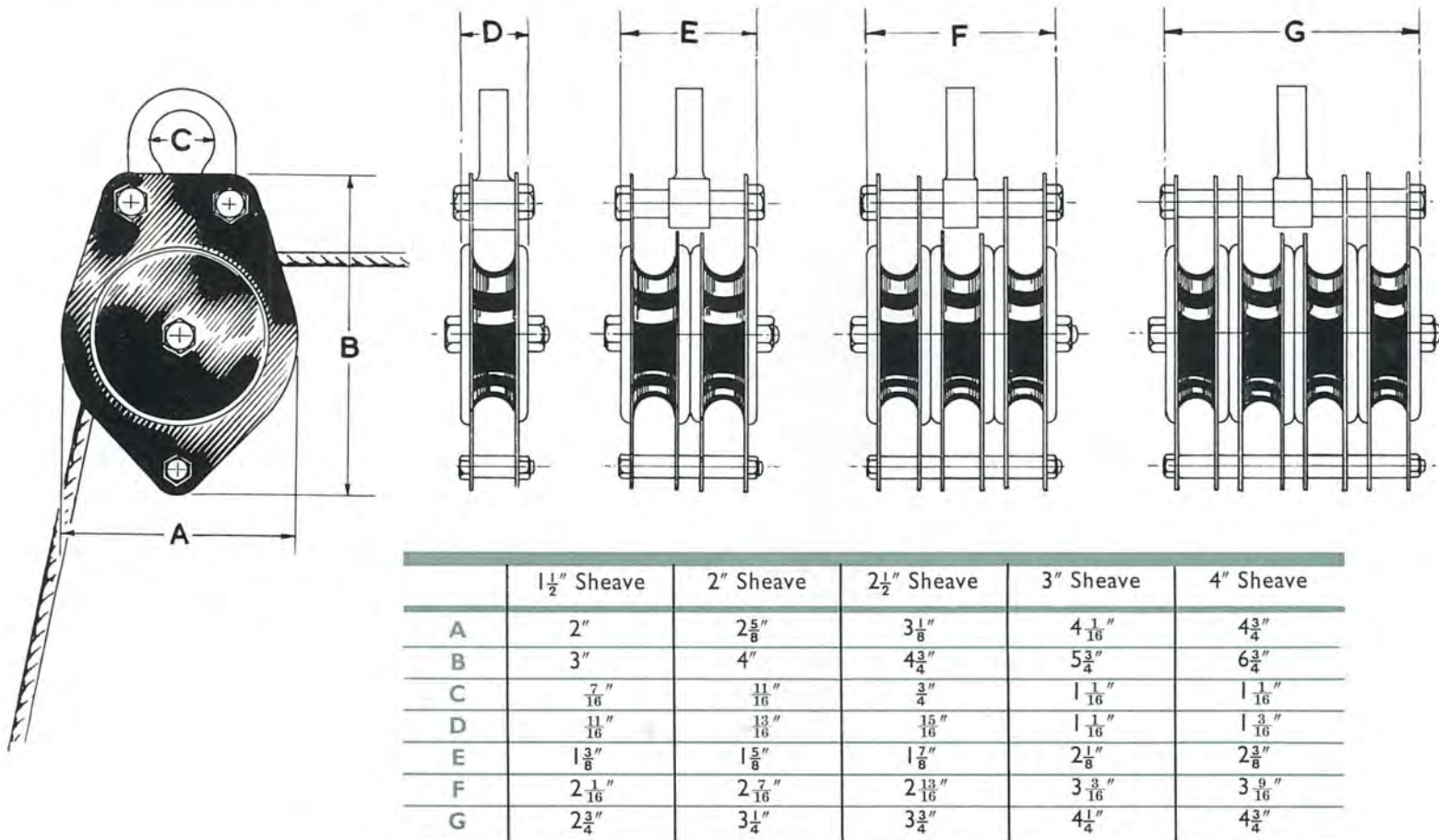
If for a special reason it is necessary to "drop" the pulley to a lower level than the supporting joist, then a suitable length of No. 761 CHAIN should be used. (See diagram at "A".)

The use of a long eye-bolt (as at "B") is very bad practice and can only result in the bending and possible breaking of the eye-bolt.



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Dimensions of No. 245 AWNING PULLEYS



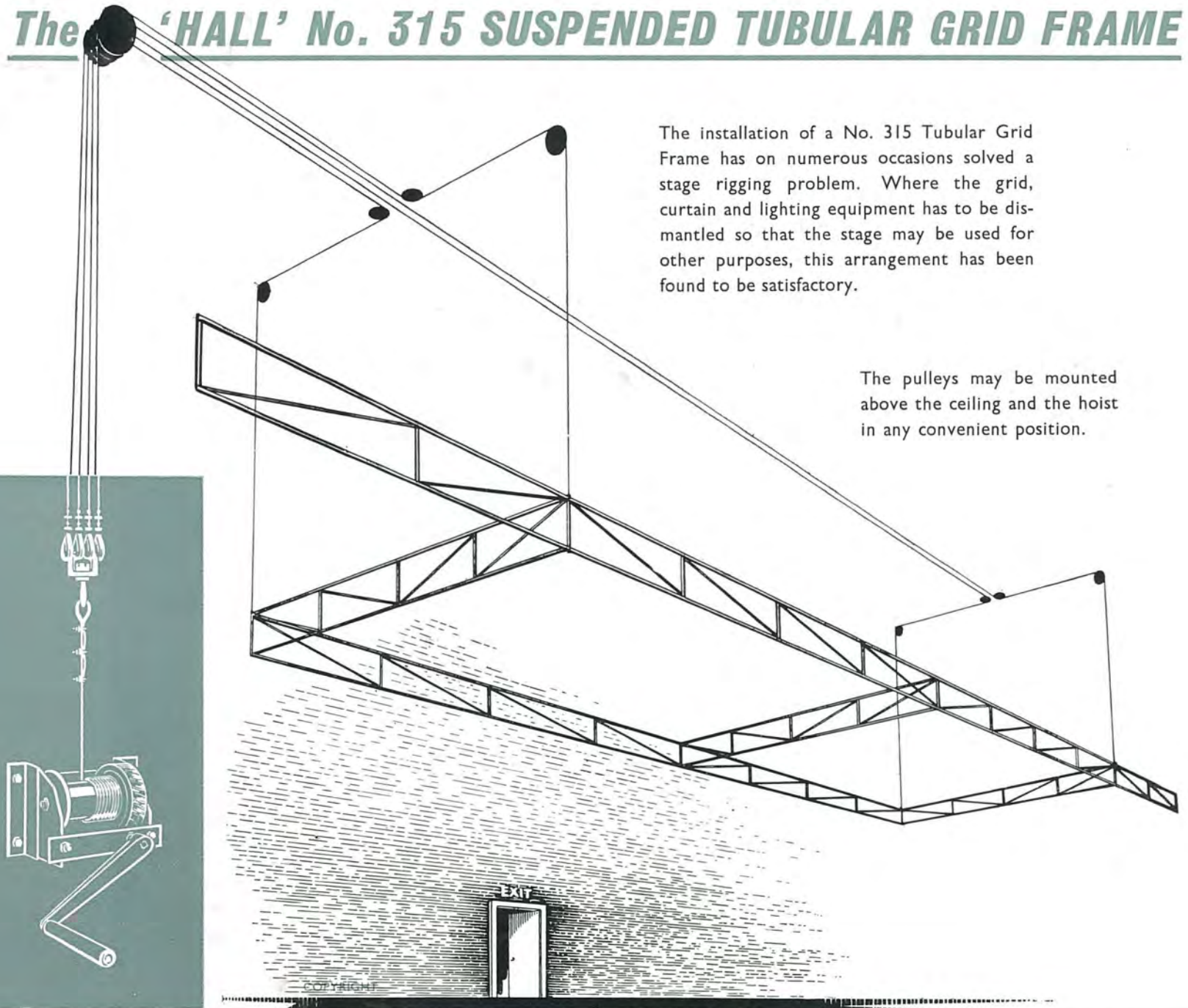
Recommended sizes of No. 338 COACH-EYES for AWNING PULLEYS
 (see page 132 for Coach-eyes).
 (We do NOT advise coach-eye fixing for pulleys over 2½".)

Diam. of Sheave	Single and Double	Treble and Fourway
1½"	1½" by 5/16" Coach-eye	2" by 3/8" Coach-eye
2"	2" by 3/8" Coach-eye	3" by 3/8" Coach-eye
2½"	2½" by 3/8" Coach-eye	3" by 1/2" Coach-eye

The 'HALL' No. 315 SUSPENDED TUBULAR GRID FRAME

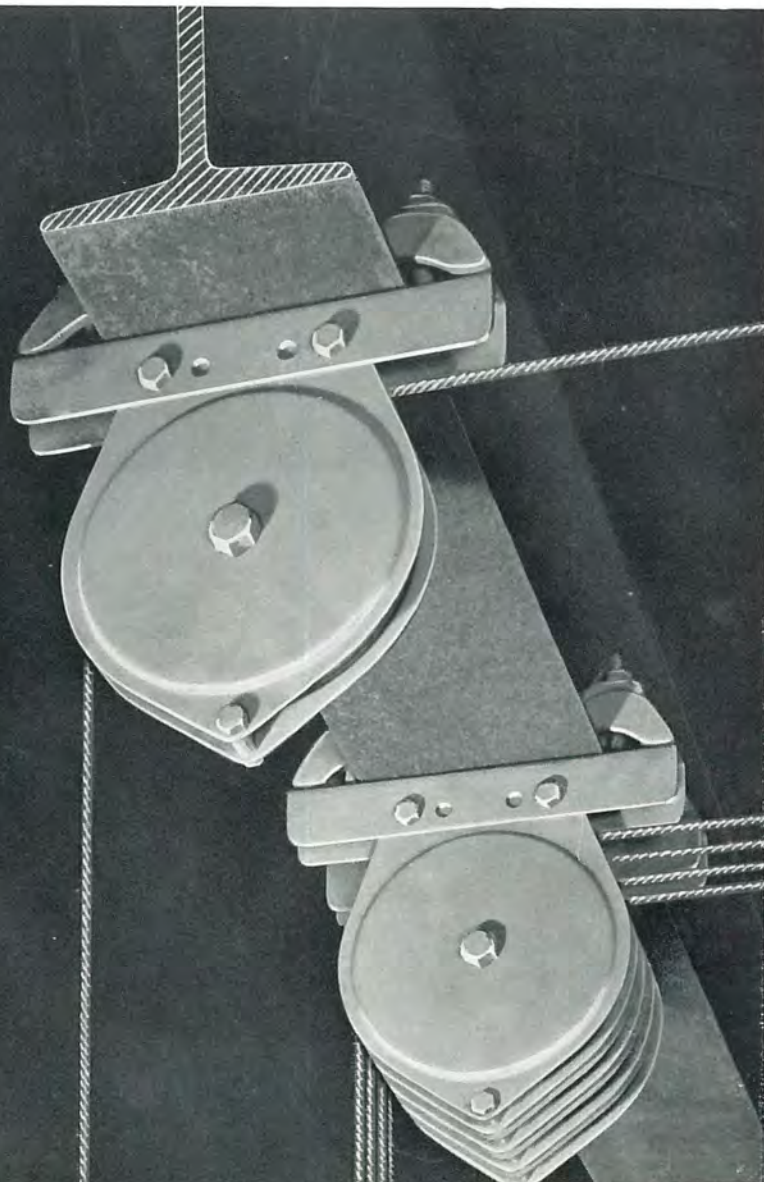
The installation of a No. 315 Tubular Grid Frame has on numerous occasions solved a stage rigging problem. Where the grid, curtain and lighting equipment has to be dismantled so that the stage may be used for other purposes, this arrangement has been found to be satisfactory.

The pulleys may be mounted above the ceiling and the hoist in any convenient position.



The 'HALL' No. 184 GIRDER FIXING PULLEYS

These pulleys are designed for Scenery Hand Lines, Border Barrel Sets, and Stage Lighting Suspension Sets:



No. 184 pulleys clip to the flange of a rolled steel joist, the clamps are adjustable for girders from 3 in. to 6 in. inclusive.

The Sheaves are provided with self-oiling bushes and will give long trouble-free service.

No. 184 girder fixing pulleys are made in three sizes. 3 in. sheave, 4 in. sheave and 6 in. sheave with Single, Double, Treble, Fourway and Fiveway assemblies of each size.

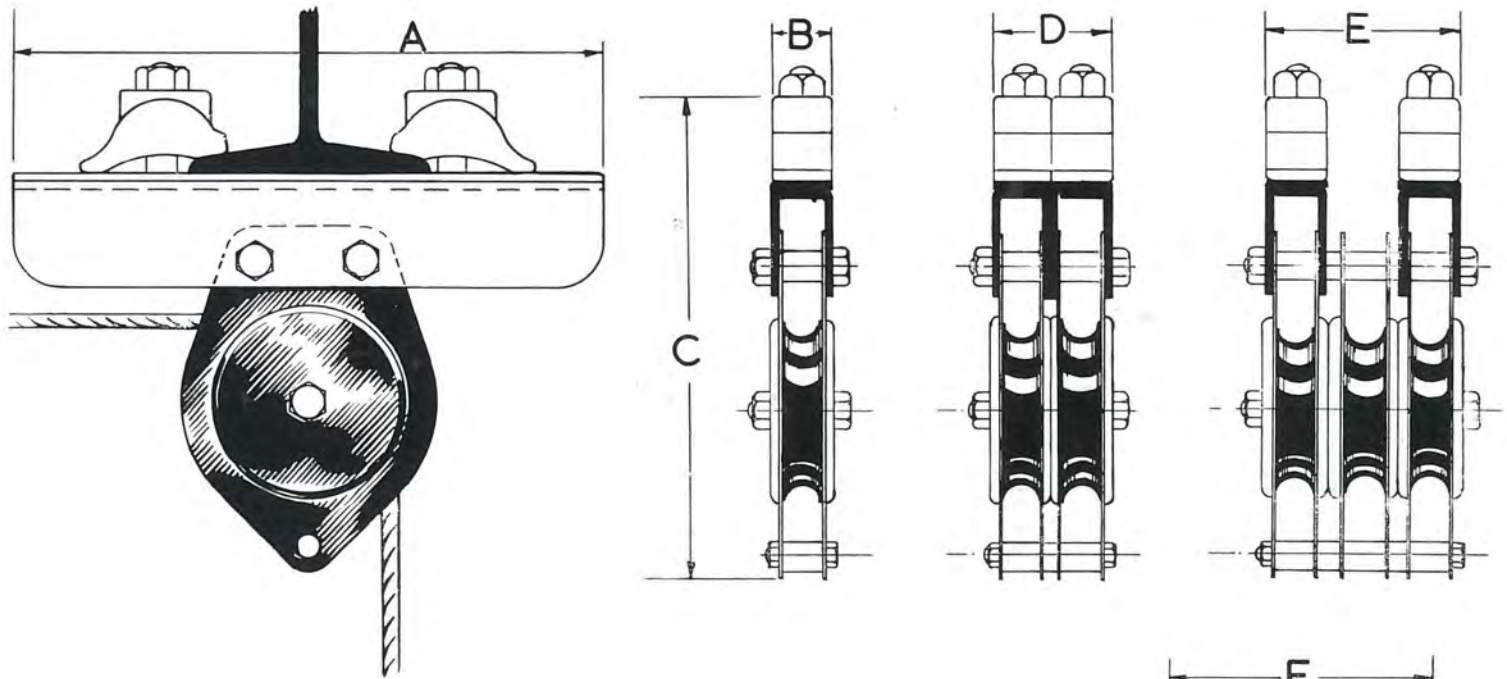
The sheaves are suitable for the following cables and hand ropes.

3" Sheave	$\frac{1}{4}$ in. dia. Hand Rope $\frac{1}{2}$ in. cir. Cable
4" Sheave	$\frac{5}{16}$ in. dia. Hand Rope $\frac{3}{4}$ in. cir. Cable
6" Sheave	$\frac{5}{8}$ in. dia. Hand Rope $\frac{7}{8}$ in. cir. Cable

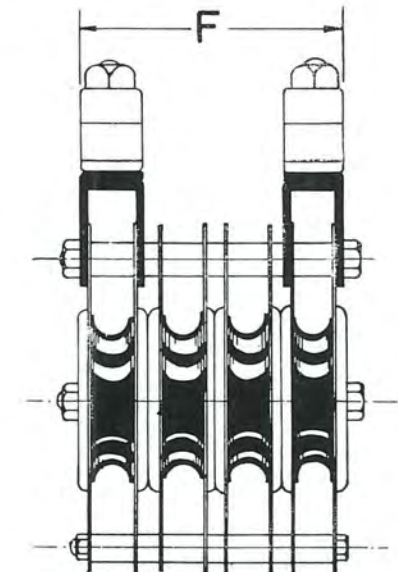
For general guidance in selection of pulleys for particular applications see page 89

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Dimensions of No. 184 GIRDER FIXING PULLEYS



	DIAMETER OF SHEAVE		
	3"	4"	6"
A	9 $\frac{3}{4}$ "	9 $\frac{3}{4}$ "	9 $\frac{3}{4}$ "
B	1"	1"	1"
C	8 $\frac{3}{8}$ "	9 $\frac{1}{4}$ "	11 $\frac{1}{4}$ "
D	2"	2 $\frac{1}{16}$ "	2 $\frac{1}{16}$ "
E	3 $\frac{3}{8}$ "	3 $\frac{1}{2}$ "	3 $\frac{1}{2}$ "
F	4 $\frac{5}{16}$ "	4 $\frac{1}{2}$ "	4 $\frac{1}{2}$ "



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The 'HALL' No. 243 GUIDE PULLEY

Designed for General Stage Use



These pulleys are very satisfactory guide pulleys for **CURTAIN TRACK CABLES, SCENERY TRICK LINES, FESTOON LINES, SAFETY CURTAIN RELEASE RUNS** and **BLIND OPERATING CABLES.**

The **SHEAVES** are provided with self-oiling bushes and will give long trouble-free service.

No. 243 Pulleys are manufactured with either 1½-in., 2-in., 2½-in. or 3-in. sheaves and in Single, Double, Treble and Fourway assemblies.

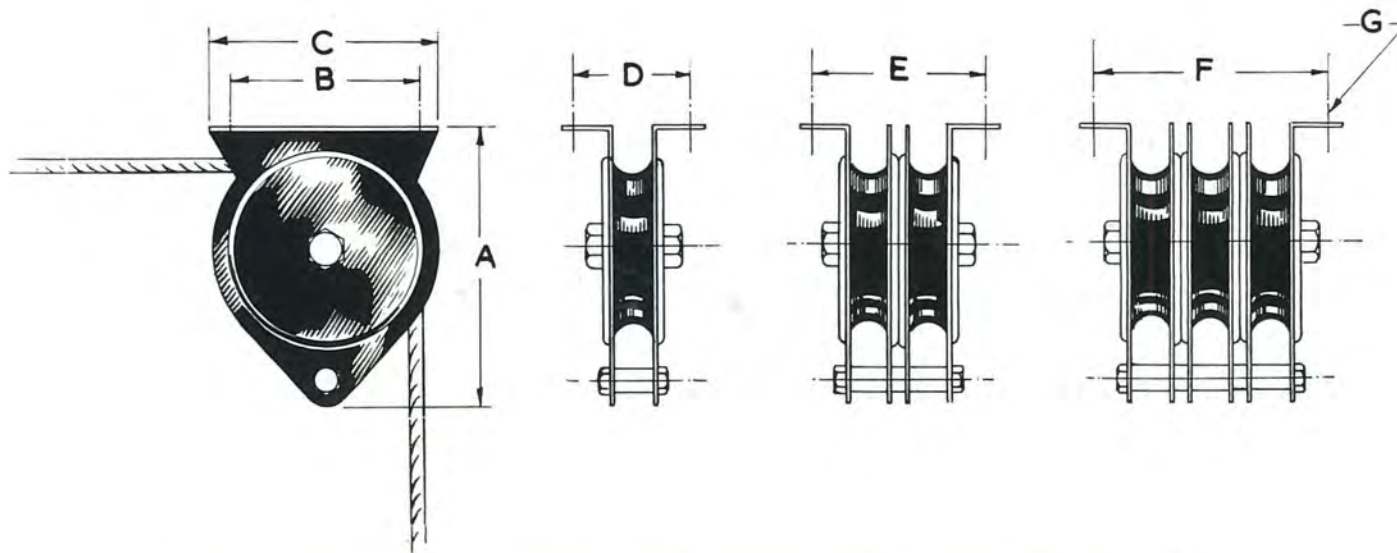
The sheaves are suitable for the following Cables and Hand Ropes.

1½" Sheave	2" Sheave	2½" Sheave	3" Sheave
No. 4 Sashline ¼" circ. Cable	No. 6 Sashline ⅜" circ. Cable	No. 8 Sashline ½" circ. Cable	½" diam. Hand Rope ⅝" circ. Cable

For general guidance in selection of pulleys for particular application see page 89.

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The 'HALL' No. 243 GUIDE PULLEY



DIMENSIONS OF NO. 243 UPRIGHT FIXING PULLEY

	1 1/2"	2"	2 1/2"	3"
A	2 3/8"	3 1/16"	3 3/4"	4 9/16"
B	1 1/4"	2 1/8"	2 5/8"	3 1/8"
C	2"	2 3/4"	3 3/8"	3 3/4"
D	1 1/8"	1 9/16"	1 5/8"	1 13/16"
E	1 3/4"	2 7/16"	2 5/8"	2 7/8"
F	2 7/16"	3 1/16"	3 9/16"	4 1/16"
G	3/16" Bolt Hole	1/4" Bolt Hole	1/4" Bolt Hole	1/4" Bolt Hole

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The 'HALL' No. 244 GUIDE PULLEY

Designed for General Stage Use

These pulleys are very satisfactory guide pulleys for **CURTAIN TRACK CABLES, SCENERY TRICK LINES, FESTOON LINES, SAFETY CURTAIN RELEASE RUNS,** and **BLIND OPERATING CABLES.**



The SHEAVES are provided with self-oiling bushes and will give long trouble-free service.

No. 244 Pulleys are manufactured with either 1½-in., 2-in., 2½-in. or 3-in. Sheaves and in Single, Double, Treble and Fourway assemblies. (SPECIAL PULLEYS can be made up with any number of sheaves on receipt of particulars.)

The sheaves are suitable for the following Cables and Hand Ropes.

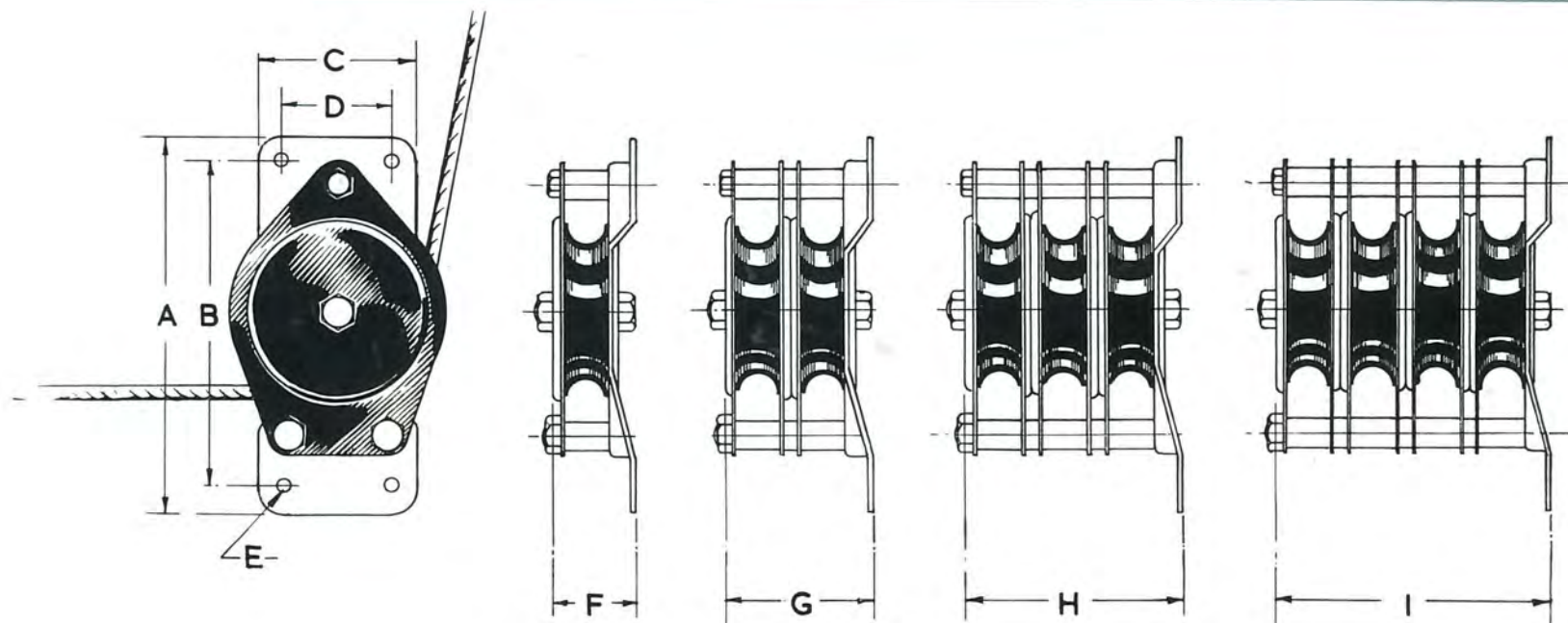
1½" Sheave	2" Sheave	2½" Sheave	3" Sheave
No. 4 Sashline ¼" circ. Cable	No. 6 Sashline ⅜" circ. Cable	No. 8 Sashline ½" circ. Cable	½" diam. Hand Rope ⅝" circ. Cable



For general guidance in selection of pulleys for particular application see page 89

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The 'HALL' No. 244 GUIDE PULLEY



DIMENSIONS OF THE NO. 244 SIDE FIXING PULLEY

	1½"	2"	2½"	3"
A	3¾"	4½"	5⅜"	6½"
B	3⅛"	3⅝"	4⅞"	5½"
C	1½"	2"	2¼"	2¾"
D	⅞"	1¼"	1½"	1¾"
E	⅜" Bolt Hole	⅜" Bolt Hole	⅜" Bolt Hole	⅝" Bolt Hole
F	⅞"	⅞"	1"	1½"
G	1⅜"	1⅜"	2"	2⅜"
H	2⅛"	2½"	2⅞"	3⅝"
I	2¾"	3½"	4"	5⅛"

The 'HALL' No. 182 HOOK BOLT GRID PULLEY

For
Mounting
on a
Steel
Grid



These pulleys are designed for Scenery Hand Lines, Border Barrel Sets, and Stage Lighting Suspension Sets

For Head Pulleys with Sheaves "In Line" instead of side by side see page 86.

The Sheaves are provided with self-oiling bushes and will give long trouble-free service.

No. 182 Hook-bolt fixing pulleys are made in three sizes. 3 in. sheave, 4 in. sheave and 6 in. sheave with Single, Double, Treble and Four-way assemblies of each size.

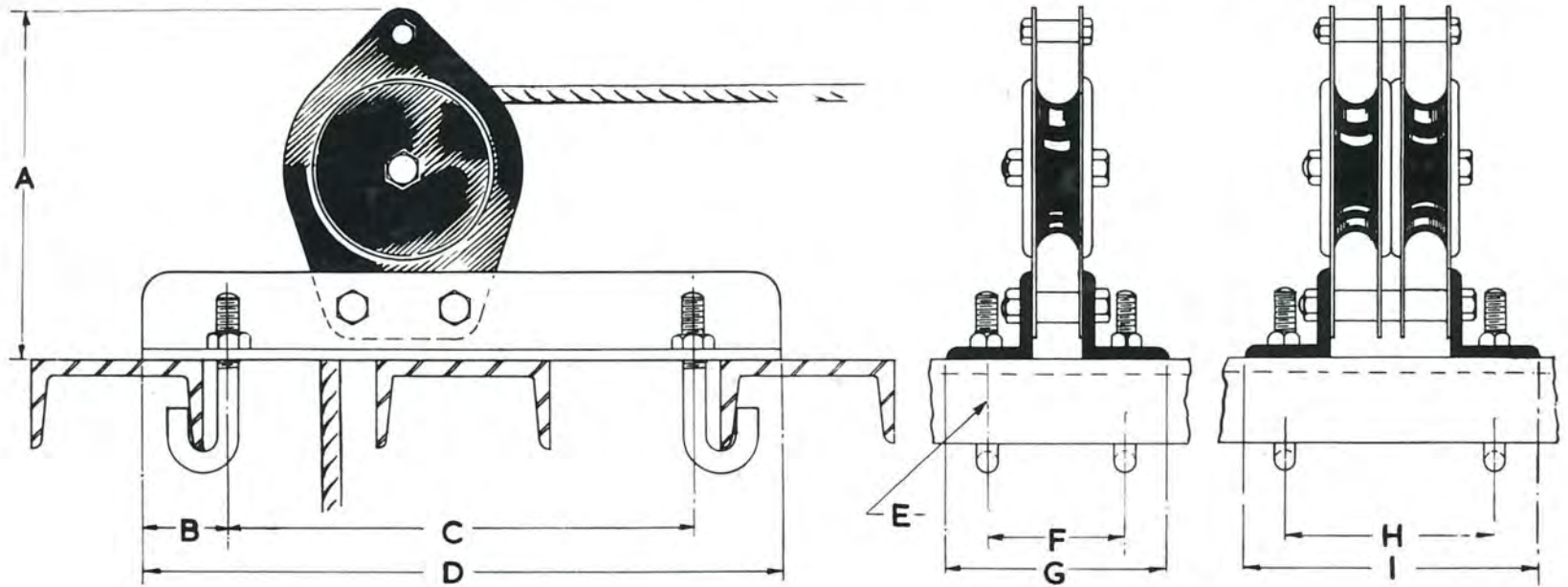
The sheaves are suitable for the following cables and hand ropes.

3" Sheave	$\frac{1}{2}$ " diam. Hand Rope	$\frac{5}{8}$ " circ. Cable
4" Sheave	$\frac{5}{8}$ " diam. Hand Rope	$\frac{3}{4}$ " circ. Cable
6" Sheave	$\frac{5}{8}$ " diam. Hand Rope	$\frac{7}{8}$ " circ. Cable

For general guidance in selection of pulleys
for particular applications see page 89

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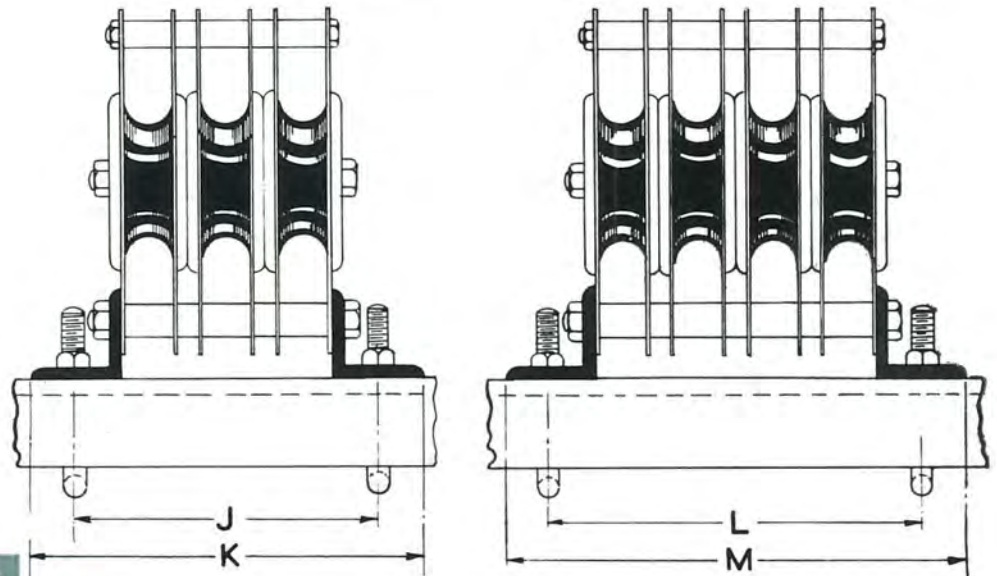
Dimensions of 'HALL' No. 182 STEEL GRID PULLEY

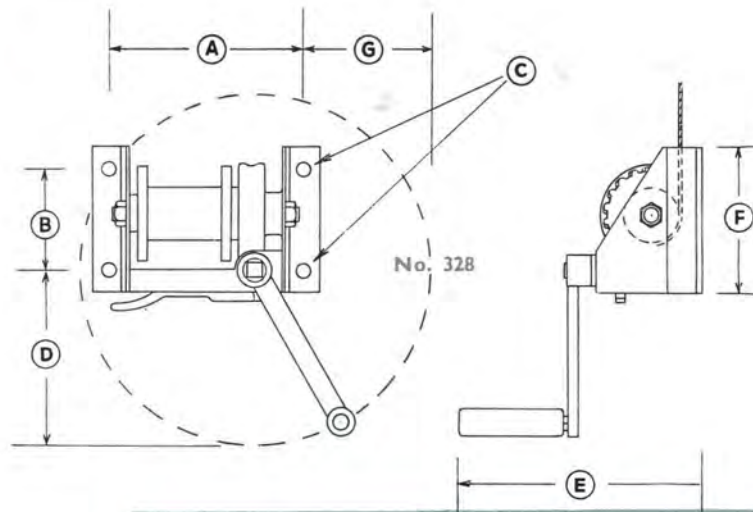
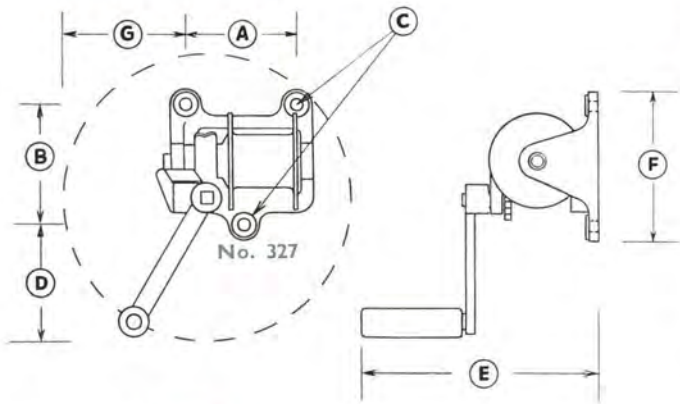


DIAMETER OF SHEAVE

	3"	4"	6"
A	$6\frac{1}{16}"$	$7\frac{3}{16}"$	$9\frac{1}{16}"$
B	$1\frac{1}{2}"$	$1\frac{1}{2}"$	$1\frac{1}{2}"$
C	8"	8"	8"
D	11"	11"	11"
E	$\frac{7}{16}"$	$\frac{7}{16}"$	$\frac{7}{16}"$
F	$2\frac{5}{16}"$	$2\frac{3}{8}"$	$2\frac{7}{16}"$
G	$3\frac{13}{16}"$	$3\frac{7}{8}"$	$3\frac{15}{16}"$
H	$3\frac{7}{16}"$	$3\frac{1}{2}"$	$3\frac{11}{16}"$
I	$4\frac{15}{16}"$	5"	$5\frac{3}{16}"$
J	$4\frac{9}{16}"$	$4\frac{3}{4}"$	5"
K	$6\frac{1}{16}"$	$6\frac{1}{4}"$	$6\frac{1}{2}"$
L	$5\frac{11}{16}"$	$5\frac{15}{16}"$	$6\frac{3}{16}"$
M	$7\frac{3}{16}"$	$7\frac{7}{16}"$	$7\frac{11}{16}"$

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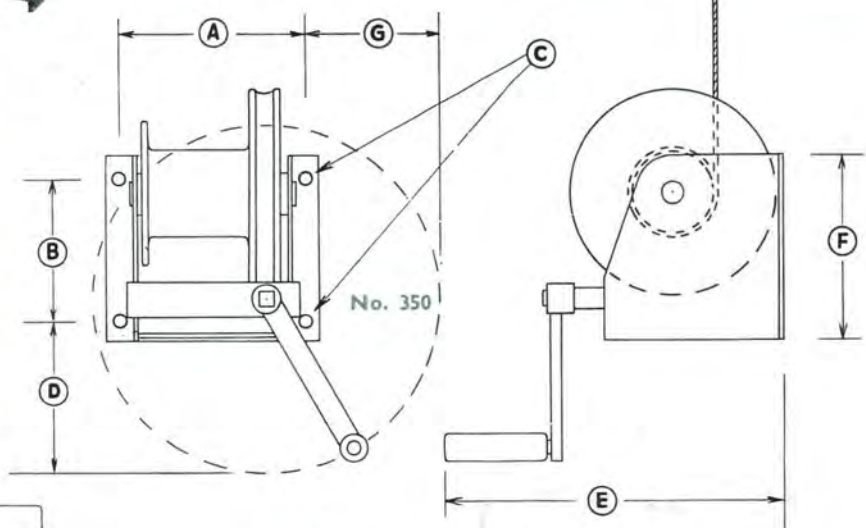
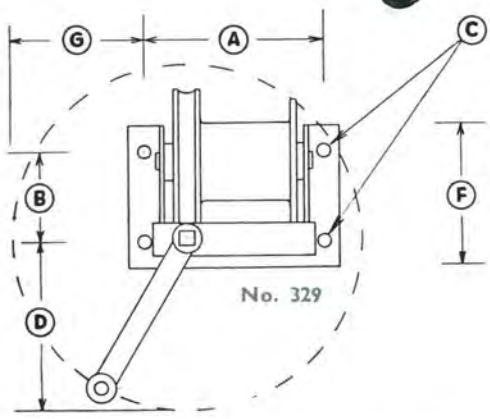




'Hall'
SELF-SUSTAINING
HOISTS

TYPE M.C.
 (Fitted with Machine-cut Gears)

These Type M.C. Hoists are efficient and reliable for raising, lowering and sustaining weights up to the SAFE LOADS given on page 130. The hoists may be operated by one man at a speed of approximately 3 ft. per minute. They are fitted with machine cut-gears and are recommended for all uses, particularly for hoisting sets which are in constant use. Dimensions see page 130.



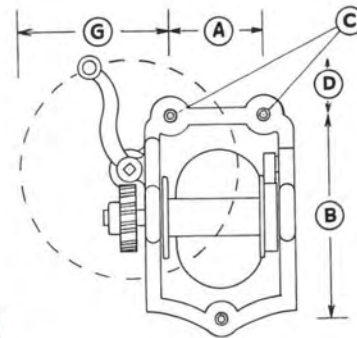
★ For Diagram of Stage Lighting Suspension Gear see page 106.

The 'HALL' SELF SUSTAINING HOISTS

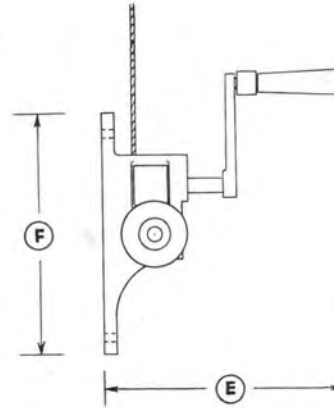
TYPE C.G. (Fitted with un-machined gears)



No. 330
5-cwt. capacity
Single Drum



No. 330,
331, 332, 333 & 334



No. 332
5-cwt. capacity
Three-way
Drum

These Type C.G. Hoists are reliable for raising, lowering and sustaining weights up to the SAFE LOADS given on page 130. They may be operated by one man at a speed of approximately 3 ft. per minute.

These hoists are suitable for Stage Lighting Suspension Barrels or for general stage use. (See diagram page 106.)

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'Hall'

No. 313 SWIVEL CLEW



No. 313 SWIVEL CLEW is designed for attaching one hauling cable to two or more suspension cables. It is supplied complete with thimbles as illustrated.

These Swivel Clews are made in the following sizes and capacities.

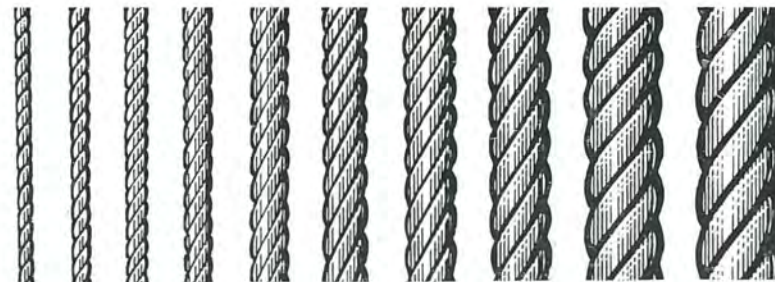
No. 313A Three-way (as illustrated ...	...	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "
No. 313B Four-way by...	...	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "
No. 313C Five-way by ...	...	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "
Safe Load	3 cwt.	5 cwt.	8 cwt.	15 cwt.	20 cwt.
Inside diameter of eye	1"	$1\frac{3}{8}$ "	$1\frac{1}{4}$ "	$1\frac{5}{8}$ "	$1\frac{3}{4}$ "

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Dimensions of 'HALL' SELF SUSTAINING HOISTS

Catalogue No.	327	328	329	330	331	332	333	334	350
Safe Load	3 cwt.	5 cwt.	10 cwt.	5 cwt.	10 cwt.	5 cwt.	10 cwt.	10 cwt.	20 cwt.
Drum	Single	Single	Single	Single	Single	Three-way	Three-way	Four-way	Single
Cable Capacity	80' $\frac{3}{4}$ " circ.	85' 1" circ.	100' 1" circ.	110' $\frac{7}{8}$ " circ.	200' $1\frac{1}{8}$ " circ.	Approx. 20' $\frac{3}{8}$ " circ. (Each Div.)	Approx. 20' $\frac{3}{8}$ " circ. (Each Div.)	Approx. 20' $\frac{3}{8}$ " circ. (Each Div.)	90' $1\frac{1}{2}$ " circ.
A	$7\frac{3}{8}$ "	1' $1\frac{1}{2}$ "	1' 0"	$6\frac{1}{4}$ "	$8\frac{1}{2}$ "	$6\frac{1}{4}$ "	$8\frac{1}{2}$ "	$8\frac{1}{2}$ "	1' $0\frac{5}{8}$ "
B	8"	$6\frac{3}{4}$ "	6"	1' $1\frac{1}{2}$ "	1' $8\frac{3}{4}$ "	1' $1\frac{1}{2}$ "	1' $8\frac{3}{4}$ "	1' $8\frac{3}{4}$ "	9"
C	$\frac{11}{16}$ "	$\frac{11}{16}$ "	$\frac{5}{8}$ "	$\frac{11}{16}$ "	$\frac{13}{16}$ "	$\frac{11}{16}$ "	$\frac{13}{16}$ "	$\frac{13}{16}$ "	$\frac{11}{16}$ "
D	$9\frac{1}{2}$ "	$11\frac{1}{2}$ "	11"	$4\frac{1}{2}$ "	$9\frac{1}{4}$ "	$4\frac{1}{2}$ "	$9\frac{1}{4}$ "	$9\frac{1}{4}$ "	10"
E	1' 4"	1' $6\frac{1}{2}$ "	2' 0"	1' 4"	1' 9"	1' 4"	1' 9"	1' 9"	2' $1\frac{1}{2}$ "
F	10"	$9\frac{3}{4}$ "	$9\frac{1}{2}$ "	1' 4"	1' $11\frac{1}{2}$ "	1' 4"	1' $11\frac{1}{2}$ "	1' $11\frac{1}{2}$ "	1' $0\frac{1}{2}$ "
G	8"	9"	9"	10"	1' 5"	10"	1' 5"	1' 5"	9"

'HALL' CABLES & CABLE FITTINGS



No. 640
Cable Grip

GALVANIZED FLEXIBLE STEEL CABLE (actual sizes)

$\frac{1}{4}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "	1"	$1\frac{1}{8}$ "	$1\frac{1}{2}$ " circ.
$\frac{3}{32}$ "	$\frac{7}{64}$ "	$\frac{1}{8}$ "	$\frac{5}{32}$ "	$\frac{3}{16}$ "	$\frac{1}{4}$ "	$\frac{9}{32}$ "	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ " appr. diam.

NOTE : Cables No. 336 are Galvanized Ordinary Lay.

Cables No. 316 are Pre-formed Blue Strand.

Shackles No. 317 are Black Tested.

Shackles No. 592 are Galvanized.

Thimbles No. 625 are Galvanized.

We cut cable to any length and eye splice as required.



No. 625
Thimble, Galvanized

Shackles
No. 592, Galvanized
No. 317 Black, Tested

FLEXIBLE STEEL CABLE

CABLE	CIRCUMFERENCE	APPROX. DIAM.	SAFE WORKING LOAD	SUITABLE CABLE GRIP	SUITABLE SHACKLE	SUITABLE THIMBLE
No. 336- $\frac{1}{4}$ "	$\frac{1}{4}$ "	$\frac{3}{32}$ "	65 lb.	—	No. 592- $\frac{1}{8}$ "	No. 625- $\frac{1}{8}$ "
No. 336- $\frac{5}{16}$ "	$\frac{5}{16}$ "	$\frac{7}{64}$ "	80 lb.	—	No. 592- $\frac{3}{16}$ "	No. 625- $\frac{1}{8}$ "
No. 336- $\frac{3}{8}$ "	$\frac{3}{8}$ "	$\frac{1}{8}$ "	120 lb.	No. 640- $\frac{1}{8}$ "	No. 592- $\frac{3}{16}$ "	No. 625- $\frac{1}{8}$ "
No. 336- $\frac{1}{2}$ "	$\frac{1}{2}$ "	$\frac{5}{32}$ "	145 lb.	No. 640- $\frac{1}{8}$ "	No. 592- $\frac{1}{4}$ "	No. 625- $\frac{3}{16}$ "
No. 336- $\frac{5}{8}$ "	$\frac{5}{8}$ "	$\frac{3}{16}$ "	260 lb.	No. 640- $\frac{3}{16}$ "	No. 592- $\frac{5}{16}$ "	No. 625- $\frac{3}{16}$ "
No. 336- $\frac{3}{4}$ "	$\frac{3}{4}$ "	$\frac{1}{4}$ "	400 lb.	No. 640- $\frac{1}{4}$ "	No. 592- $\frac{3}{8}$ "	No. 625- $\frac{1}{4}$ "
No. 336- $\frac{7}{8}$ "	$\frac{7}{8}$ "	$\frac{9}{32}$ "	520 lb.	No. 640- $\frac{1}{4}$ "	No. 592- $\frac{3}{8}$ "	No. 625- $\frac{5}{16}$ "
No. 336-1"	1"	$\frac{5}{16}$ "	700 lb.	No. 640- $\frac{5}{16}$ "	No. 592- $\frac{1}{2}$ "	No. 625- $\frac{5}{16}$ "
No. 316-1"	1"	$\frac{5}{16}$ "	1,040 lb.	No. 640- $\frac{5}{16}$ "	No. 317- $\frac{1}{2}$ "	No. 625- $\frac{5}{16}$ "
No. 316- $1\frac{1}{8}$ "	$1\frac{1}{8}$ "	$\frac{3}{8}$ "	1,220 lb.	No. 640- $\frac{3}{8}$ "	No. 317- $\frac{1}{2}$ "	No. 625- $\frac{3}{8}$ "
No. 316- $1\frac{1}{2}$ "	$1\frac{1}{2}$ "	$\frac{1}{2}$ "	2,240 lb.	No. 640- $\frac{1}{2}$ "	No. 317- $\frac{5}{8}$ "	No. 625- $\frac{1}{2}$ "

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'Hall' SUSPENSION FITTINGS

No. 681
Swivel Eyes



No. 681 Drop-forged SWIVEL EYES are very useful where a PROP or Fitting is to be suspended on a single cable or rope and twisting is to be prevented.

They are manufactured in the following sizes and SAFE working load.

	No. 681— $\frac{5}{16}$ "	No. 681— $\frac{3}{8}$ "	No. 681— $\frac{1}{2}$ "	No. 681— $\frac{5}{8}$ "
Safe Working Load	3 cwt.	5 cwt.	8 cwt.	15 cwt.



No. 764
Eyebolts

No. 764 EYEBOLTS are manufactured in the following sizes.

$\frac{1}{4}$ "	diameter	by	2", 3", 4" and 6" long.
$\frac{5}{16}$ "	"	"	2", 3", 4", 6", 8", 10" and 12" long.
$\frac{3}{8}$ "	"	"	2", 3", 4", 6", 8", 10" " 12" "
$\frac{1}{2}$ "	"	"	2", 3", 4", 6", 8", 10" " 12" "
$\frac{1}{4}$ "	Eyebolts are suitable for $\frac{1}{4}$ " circ. Cable and No. 245— $1\frac{1}{2}$ " and 2" pulleys.		
$\frac{5}{16}$ "	"	"	" $\frac{3}{8}$ " and $\frac{1}{2}$ " circ. Cable and No. 245— $2\frac{1}{2}$ " and 3" pulleys.
$\frac{3}{8}$ "	"	"	" $\frac{5}{8}$ " circ. Cable and No. 245—4" pulleys.
$\frac{1}{2}$ "	"	"	" $\frac{3}{4}$ " and $\frac{7}{8}$ " circ. Cable and No. 245—6" pulleys.



No. 338
Coach Eyes

No. 338 COACH EYES are made for suspending No. 245 Awning Pulleys or "dead lines" from wooden joists. See ref. page 118.

They are made in the following sizes:—

No. 338A	$1\frac{1}{2}$ " by $\frac{5}{16}$ "	No. 338C	$2\frac{1}{2}$ " by $\frac{3}{8}$ "	No. 338E	3" by $\frac{1}{2}$ "
No. 338B	2" by $\frac{3}{8}$ "	No. 338D	3" by $\frac{3}{8}$ "		



No. 274
Grummet

No. 274 GRUMMET for flying scenery is designed to screw and bolt to the top of the scenery to hold the flying cables in position.

Made in two sizes:—

- No. 274A to take up to $\frac{1}{2}$ " circ. Cable or No. 5 Sashline.
- No. 274B " " " " $\frac{3}{4}$ " " " " $\frac{1}{2}$ " diameter Hand Rope.

We recommend that the grummet is fixed with two $\frac{1}{4}$ " bolts and two wood screws. For flying fittings see page 137.

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'Hall' SUSPENSION FITTINGS

No. 232 UNIVERSAL SUSPENSION CLIP, designed for the Hall Tubular Curtain Track, has many other applications.

The "D" Ring can be removed and a standard coachscrew may be inserted for timber fixing.

Alternatively a hexagon bolt can be inserted for bracket or ceiling suspension.

No. 232 Clips are made in the following sizes.

No. 232A to clip $\frac{5}{8}$ " Tube (Extra-light Track), $\frac{1}{4}$ " bolt or coachscrew.

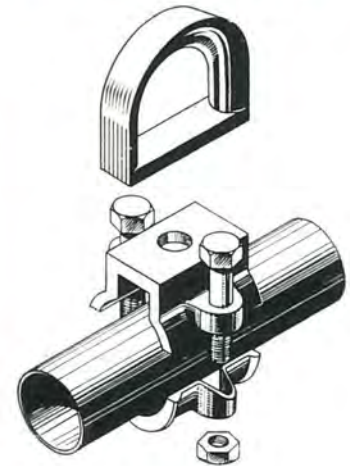
No. 232B " " 1" " (Light Track), $\frac{3}{8}$ " bolt or coachscrew.

No. 232C " " $1\frac{1}{4}$ " " $\frac{7}{16}$ " bolt or coachscrew.

No. 232D " " $1\frac{1}{2}$ " " (Heavy Track), $\frac{1}{2}$ " bolt or coachscrew.

No. 232E " " $1\frac{1}{2}$ " Gas (Tubular Scaffolding), $\frac{5}{8}$ " bolt or coachscrew.

No. 232F " " 2" Gas, $\frac{5}{8}$ " bolt or coachscrew.



No. 232 Universal Suspension Clip

No. 230 OVERLAP CLIPS are made to clamp two tubes of the SAME DIAMETER together as shown.

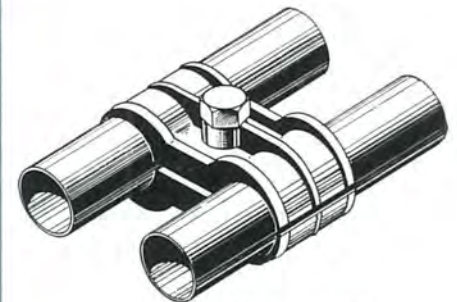
No. 230A Clips $\frac{5}{8}$ " and $\frac{5}{8}$ " Tubes.

No. 230B " 1" " 1" "

No. 230C " $1\frac{1}{4}$ " " $1\frac{1}{4}$ " "

No. 230D " $1\frac{1}{2}$ " " $1\frac{1}{2}$ " "

No. 230E " $1\frac{1}{2}$ " Gas and $1\frac{1}{2}$ " Gas.



No. 230 Adjustable Overlap Clip

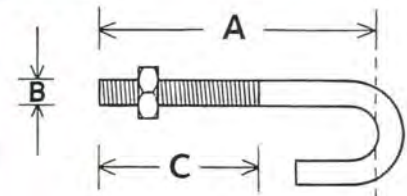
No. 347 HOOK BOLTS are made in the following sizes:—

No. 347A $\frac{1}{4}$ " diameter (B) by (A) 2", 3", 4", and 5" long (as ordered)

No. 347B $\frac{5}{16}$ " " " 2", 3", 4", 5" and 6" (as ordered)

No. 347C $\frac{3}{8}$ " " " 2", 3", 4", 5" " 6" " "

Length of Thread (C): 1", $1\frac{1}{2}$ ", 2", and 2"



No. 347 Hook Bolts

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'Hall' SUSPENSION FITTINGS

No. 339
Cable Strainer



No. 339 Strainer

4 in. x $\frac{1}{4}$ in.	for adjusting	$\frac{5}{16}$ in.	circumference cable
5 in. x $\frac{5}{16}$ in.	" "	$\frac{1}{2}$ in.	" "
6 in. x $\frac{3}{8}$ in.	" "	$\frac{5}{8}$ in.	" "
7 in. x $\frac{7}{16}$ in.	" "	$\frac{3}{4}$ in.	" "
8 in. x $\frac{1}{2}$ in.	" "	$\frac{7}{8}$ in.	" "

For tensioning or finely adjusting cables.

No. 335
Chain



No. 761
No. 335 CHAIN is suitable for bridles of electric fitting suspension sets.

Cut to any required length or supplied by weight.
1 yd.—1½ lbs.

No. 760
Barrel Slings



No. 760 BARREL SLINGS are very useful for quickly and easily attaching scenery, curtain tracks and props to counterweight barrels.

A supply of 2 or 3 dozen of these slings is a necessity on any stage where a counterweight system is installed.

No. 693
Hand-forged
Spring
Hooks



No. 693 HAND-FORGED SPRING HOOKS are suitable for the ends of scenery hand-lines for quick hooking up of French Flats, Props and Sandbags.

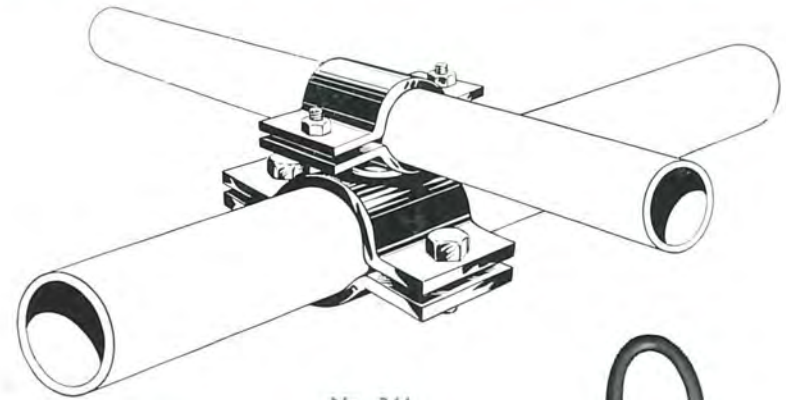
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'Hall' SUSPENSION FITTINGS

No. 344 SWIVEL TUBE CLIPS are designed to clip two tubes together at any desired angle, and are made in the following sizes:—

No. 344A	for	1"	and	1"	Tube.
No. 344B	"	1"	"	1 $\frac{1}{4}$ "	"
No. 344C	"	1"	"	1 $\frac{1}{2}$ "	"
No. 344D	"	1 $\frac{1}{4}$ "	"	1 $\frac{1}{4}$ "	"
No. 344E	"	1 $\frac{1}{4}$ "	"	1 $\frac{1}{2}$ "	"
No. 344F	"	1 $\frac{1}{2}$ "	"	1 $\frac{1}{2}$ "	"
No. 344G	"	1 $\frac{7}{8}$ "	"	1"	"
No. 344H	"	1 $\frac{7}{8}$ "	"	1 $\frac{1}{4}$ "	"
No. 344I	"	1 $\frac{7}{8}$ "	"	1 $\frac{1}{2}$ "	"

Note: 1 $\frac{1}{2}$ " Gas Barrel measures 1 $\frac{7}{8}$ " O.D.
(Scaffold Tube size)



No. 344
Swivel Tube Clips

No. 593 BARREL CLIP is a suspension clip for 1 $\frac{1}{2}$ in. Gas Barrel. (Used in Stage Lighting Hoist Sets.)



No. 593
Barrel Clip

No. 345 BARREL CLIP is designed for fixing Heavy Gauge Hall Curtain Tracks to counter-weight barrels. (1 $\frac{1}{2}$ in. tube to 2 $\frac{3}{8}$ in. tube.)



No. 345
Barrel Clip

2" GAS

SECTIONS OF 'HALL' TUBING No. 642

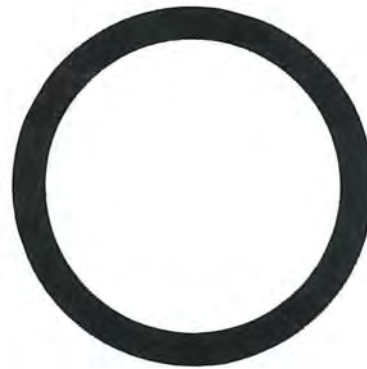
1 1/2" GAS

Scaffolding Size

1 1/2" STEEL

1" STEEL

5/8" STEEL



Drawn full size



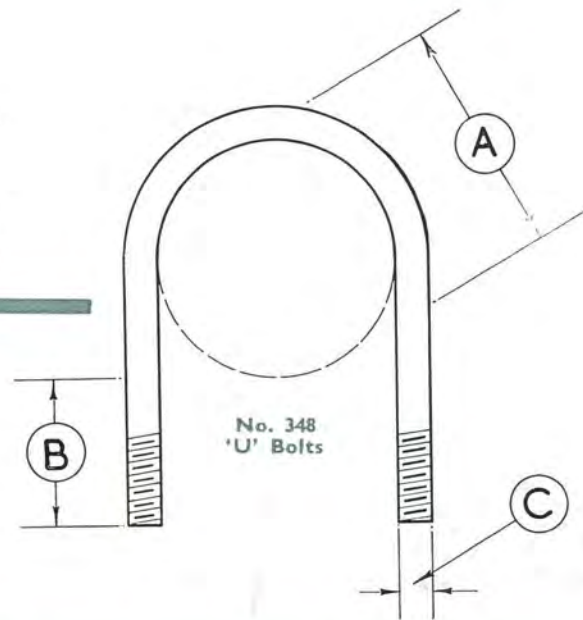
No. 346 Tube Clips

No. 346 TUBE CLIP

No. 346/A	with "U" Bolts for	1" Tube and	1" Tube.
No. 346/B	" " " " "	1 1/4" " "	1 1/4" "
No. 346/C	" " " " "	1 1/2" " "	1 1/2" "
No. 346/D	" " " " "	1 3/4" " "	1 3/4" Gas (1 7/8").
No. 346/E	" " " " "	1 3/4" " "	1 3/4" Tubes.
No. 346/F	" " " " "	1 3/4" " "	1 3/4" "
No. 346/G	" " " " "	1 3/4" " "	1 3/4" Gas (1 7/8").
No. 346/H	" " " " "	1 1/2" " "	1 1/2" Tube.
No. 346/I	" " " " "	1 1/2" " "	1 1/2" Gas (1 7/8").

No. 348 "U" Bolts are manufactured in the following sizes:—

Dimensions	A	B	C
No. 348/A	5/8" Tube	1/2", 1", 1 1/2" and 2" (as ordered)	3/16"
No. 348/B	1" "	1/2", 1", 1 1/2" " 2" " "	1/4"
No. 348/C	1 1/4" "	1", 1 1/2" and 2" " "	5/16"
No. 348/D	1 1/2" "	1", 1 1/2" " 2" " "	5/16"
No. 348/E	1 1/2" Gas (1 7/8")	1", 1 1/2" " 2" " "	5/16"
No. 348/F	2" Gas (2 3/8")	1", 1 1/2" and 2" " "	3/8"

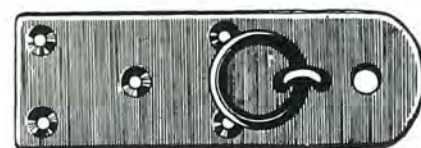


'Hall' SCENERY FLYING FITTINGS

No. 275 CEILING PLATE is designed for Scenery Ceiling Frames and provides a plate for wing-bolting the ceiling piece together and ring for flying.

The plate is 9 in. by $2\frac{1}{2}$ in. overall and drilled for No. 12 wood-screws and $\frac{3}{8}$ in. wing bolt.

No. 276 CEILING PLATE as above but WITHOUT ring.



No. 275
Ceiling Plate

No. 200 RING PLATE. Designed for the Stage Anchorage of festoon and act-drop guide cables. The ring is $1\frac{1}{2}$ in. diameter inside and the plate 2 in. by $1\frac{3}{4}$ in., drilled for No. 12 screws or $\frac{1}{4}$ in. bolts.



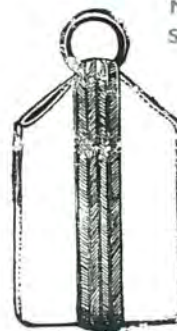
No. 200
Ring Plate

No. 619 SANDBAG. Made of extra strong quality material. A supply of these sandbags on any stage is very useful for tying on to unoccupied scenery hand-lines, and for temporary counterweights.

Made in the following sizes and supplied unfilled.

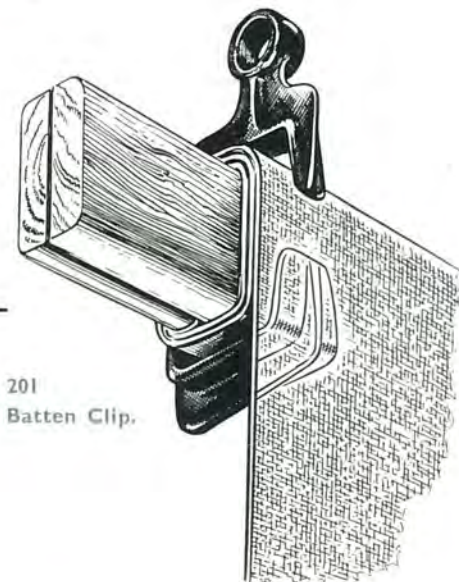
No. 619A 9 in. by 5 in. No. 619C 12 in. by 8 in.

No. 619B 10 in. by 6 in. No. 619D 14 in. by 8 in.



No. 619
Sandbag

No. 201 TOP BATTEN CLIP is designed to avoid the bad practice of cutting holes in the canvas for hanging lines. The Clip slides over the end of the cloth so that a number of turns of fabric can be taken up (to shorten the cloth) if flying height is restricted.



No. 201
Top Batten Clip.

'Hall' SCENERY FLYING IRONS



No. 175 No. 174
Hanging Irons

Where practicable Stage Scenery should be picked up from the bottom rail by means of **HANGING IRONS** No. 175 or No. 174 ($6\frac{1}{2}$ in. overall).

No. 175 HANGING IRON is designed with the eye turned inwards to the canvas to give a flat surface for touring. The eyes are large enough to take scenery hand-lines or No. 693 hand-forged Snap Hook.

No. 174A and No. 175A to take 1" wood.

No. 174B „ No. 175B „ „ $1\frac{1}{4}$ " „

No. 174C „ No. 175C „ „ $1\frac{1}{2}$ " „



No. 177
Flying Iron

No. 177 FLYING IRON is designed for bolting to the stiles of scenery or sides of boat trucks.

A hinged "D" ring is fitted to give a flat surface for touring.

Size: 1' 2" overall by $1\frac{1}{2}$ " wide.

Drilled for No. 12 Screws or $\frac{1}{4}$ " bolts.



No. 176
Fixing Iron

No. 176 FIXING IRON may be used for flying props or end-fixing for strained cables.

Made in two sizes as follows:—

No. 176A 5" long by $\frac{7}{8}$ " wide. Drilled for No. 10 screws or $\frac{3}{16}$ " bolts.

No. 176B 6" „ „ $1\frac{1}{8}$ " „ „ „ No. 12 „ „ $\frac{1}{4}$ " „

'Hall' "LONDON PATTERN" Tackle Blocks

(with SWIVEL HOOKS)

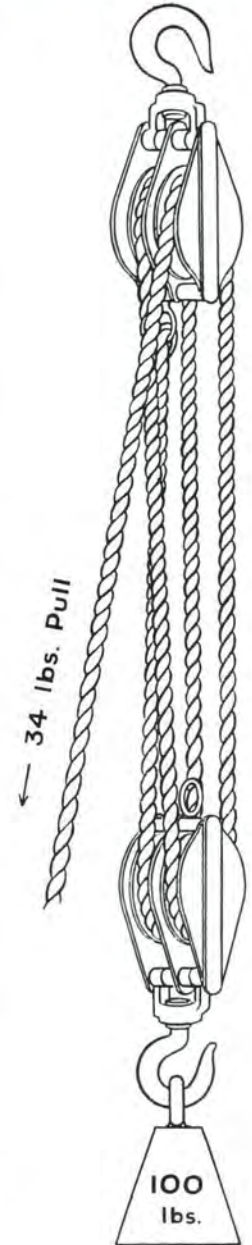
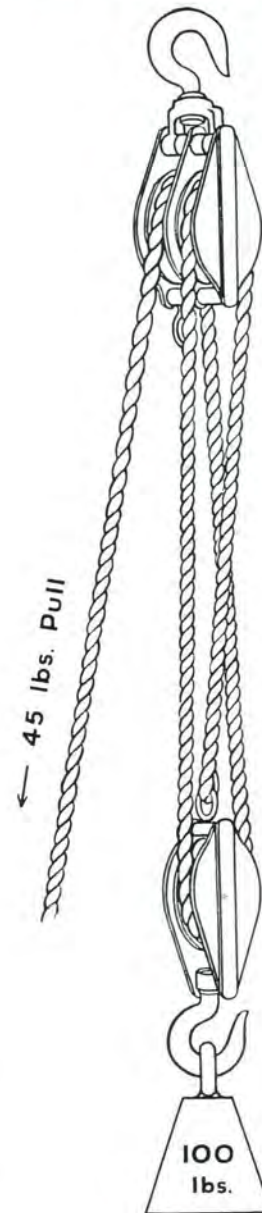
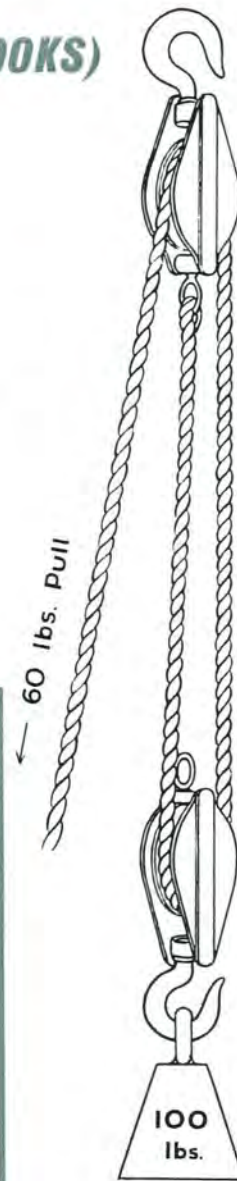


No. 318A. Single. 4-in. Sheave.
For $\frac{5}{8}$ in. diam. rope.

No. 319A. Double. 4-in. Sheave.
For $\frac{5}{8}$ in. diam. rope.

No. 318B. Single. $4\frac{3}{4}$ -in. Sheave.
For $\frac{3}{4}$ in. diam. rope.

No. 319B. Double. $4\frac{3}{4}$ -in. Sheave.
For $\frac{3}{4}$ in. diam. rope.



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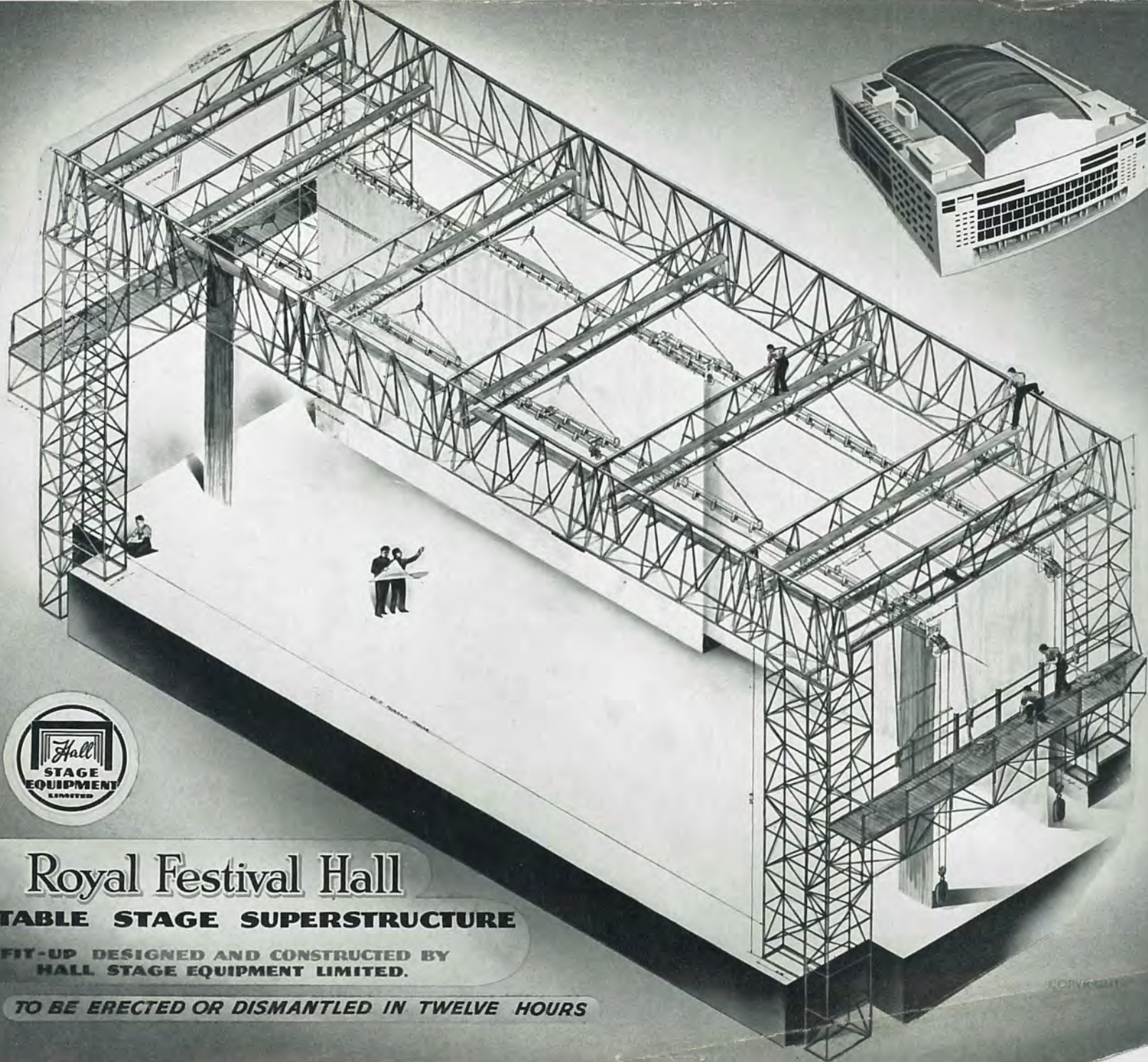


We design and construct all kinds of Prosceniums

The Proscenium illustrated above was built for a special presentation effect for the Ford Motor Company Limited. The structure and mechanism with its folding canopy is shown being erected and tested in the yard at 'Nona' Works.

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Royal Festival Hall

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*Behind the Scenes
at the Theatre*



STUDIO - WISE, LONDON

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