

APPENDIX 2

Dictionary of Occupational Titles
in the Film Production Industry

Feature Film Production:Direction Department.Director.

Co-ordinates the efforts of all departments to effect the best presentation of story on the screen as conceived by him; selects the story in consultation with producer and in case of adaptation from well-known works, personally undertakes adaptation or supervises the same; prepares the scenario himself by associating the story-writer with its preparation or finalises the same by joint discussion with story-writer and scenario writer; prepares 'shot analysis' and gets the dialogues written or may write himself; selects suitable star cast, supporting artistes and top technicians; formulates after deliberations with departmental heads rough budget estimates of the picture; discusses with music director the context of music, its nature and mood of lyrics, which have been supplied to the latter in advance; selects the tune out of varieties provided by music director and suggests changes, if any, to suit the picturisation of song; confers with art director regarding the type and number of settings, decorative preproperties and costumes and approves of the sketches prepared by him; finalises with cameraman the details regarding indoor or outdoor shootings; discusses jointly with art director and cameraman the background colour combination, type of make-up and costumes; inspects the set when ready along with art director and cameraman and satisfies that it is erected in accordance with his conception.

Confers on the day of shooting with all departmental heads, giving them an insight into the days' work; instructs cameraman as regards camera position and explains to him and the recordist the movements of artistes in the shot; supervises the rehearsal of dialogues of artistes and instructs them regarding interpretation

of their parts, movements, expressions and tempo and, if required, demonstrates by acting himself; takes final complete rehearsal of artistes under shooting conditions to ensure that the shot is picturised in the most effective manner; supervises the shooting and sees that it progresses according to his ideas and decides upon whether any retake¹ is necessary.

Sees the rushes along with technicians and selects the best take in each shot; confers with editor about sequences and supervises final editing; gives notes on background music², sound effects, photographic effects³, trick shots, dubbing and preparation of trailer; attends re-recording⁴, ensuring that the final picture stands upto his conception.

Job Qualifications:- 1. Knowledge of film techniques in all aspects, 2. Assimilation of knowledge regarding art, music and culture, 3. Attainment of fair degree of pantomimes; mimicries, expression and acting, 4. Curiosity of mind, 5. Story sense, 6. Literary trend, 7. Leadership, 8. Camera sense, 9. Sharp conception, 10. Lucidity of expression, 11. Administrative and executive ability.

I Assistant Director:

Assists the director in his duties and participates in all deliberations; prepares breakdown charts indicating artistes' work

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1. Repetitive picturisation of the same shot till satisfaction.
 2. Music recorded after completion of shooting to be inserted at various stages with a view to effectively heightening the emotions of audience beyond the limitations of dialogues, action and expression.
 3. Peculiar results obtained by cameraman during shooting by the use of contrivances equipped within the camera.
 4. Mixing up of a number of sound tracks, recorded separately in requisite proportions with finer improvement for release presentation.

set-wise and intimates the shooting dates to artistes; maintains shooting reports and jottings of the days' work; keeps continuity⁵ of make-up, costume and camera positions; requisitions property and personnel ('extras') necessary for shooting and ensures that the same are ready before shooting.

II Assistant Director:

Assists the assistant director in all his duties; claps the clapperboard⁶ during every take; is responsible for general arrangement of setting properties and decorations; writes down synopsis, dialogues and lyrics for submission to the Board of Film Censor.

Dialogues Director:

Is responsible for correct rendition of dialogues as conceived by the story and dialogue writers; studies the story and scenario in the minutest details as regards the period, atmosphere, regional peculiarities, literary value, mood etc. and practices himself with a view to ensuring that all the contents of dialogues are brought out fully; discusses with artistes and explains to them the peculiarities of dialogues, magnificence and emphasis of their contents with a view to enabling the artistes to imbibe the spirit before committing them to memory; gets the dialogues rehearsed from artistes with special concentration on timings, pitch and volume; after getting several rehearsals, notes the short-comings of artistes and demonstrates only such dialogues himself.

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5. General term connoting maintenance of uniformity in the minutest details throughout the scene or story in respect of sound, make-up, costume, lighting, relative positions of artistes etc..
 6. Small piece of black-board with a hinged clap indicating numbers of sequence, scene, shot and take, picturised in the initial stage of each take for the guidance of editor in selection of takes and for synchronisation of picture and sound.

Camera Department.Cameraman.

Narrates the story by picturising it artistically in co-ordinated sequence of events; confers in early stages with director, producer and art director as regards the story, its scenario, sequence and shot analysis, number of sets involved, outdoor sequences, stock shots⁷, special effects, fixation of locales, etc. in order to imagine as nearly as possible the correct picturisation of theme as conceived by the director; ensures advantageous camera positions and light angles in the set and best selection of colours for set, background, make-up and costumes for blended colour renderings by instructing setting master, background painter, make-up artist and costume-in-charge.

Instructs the lighting crew as regards erection of hanging bridges; executes with the aid of first assistant cameraman set, back-ground as well as character lighting⁸ and ensures uniform lighting in all movements of artistes in a shot.

Views the entire set through the monochrome⁹ to satisfy as regards smooth and perfect lighting and that there are no patches of dark and bright illumination; takes working rehearsal of the shot; instructs the trolleyman or crane operator regarding starting and ending chalk marks, rate of movement, its relation with the movements of artistes, angle of elevation of depression of crane, etc.; issues instructions to electrician for special effects such as storm, lightening and other allied nature; takes a photographic

7. Shots of peculiar incidents such as accidents, storms, lightening, etc. picturised specially to cater to the needs of producers as readily available material—either picture or sound.

8. Artificial illumination used to ensure uniform lighting over a mobile artiste throughout.

9. Optical device with single colour true glass to ensure uniform lighting condition throughout the set.

test of the set with full lights on for the guidance of processing crew; examines the laboratory test and views the rushes of previous day's shooting to effect necessary adaptation in lighting;.

Takes photographic effects such as fade-ins, fade-outs, dissolves, multiple exposures and trick shots by accurate computation of footage required to be so exposed; spots out from the story such shots of relative motions as are difficult to take without photographic jerks and takes them by the use of back-projection technique;

Works with alertness on location shooting to overcome the ever-changing source of light (sun) and many a time takes the shot without rehearsal to ensure minimum change in natural lighting conditions due to lapse to time; takes sufficient number of shots, exposing attractive landscape and sky rich in clouds of tonal variations for use at a later stage for title insertion¹⁰ on songs, back projection or special effects.

Job Qualifications:- 1) Art of narrating the story, 2) Screen timing sense, 3) High Sense of perception, 4) Deep grasping power, 5) Command over pictorial composition, 6) Thorough knowledge of sensitometry and processing conditions, 7) Conceptual ability to select the best shot mentally, 8) Craze for panoramic landscape, 9) Unfailing keenness of sight, 10) Artistic taste, 11) Sense of lighting, 12) Visual memory.

I Assistant Cameraman:

Is mainly responsible for getting all the camera paraphernalia and their proper functioning, cleanliness and reliability; executes general set lighting, having regard to

10. Silent shot taken to be projected on screen on portions of a song for affording variety or depiction of reaction.

different camera positions; checks every appliance before shooting and ensures its proper functioning; checks the speed of camera and threads the film after it is loaded in magazine by the second assistant; marks positions of different artistes to be stressed in the shot and measures the distance between the artistes and camera at different stages of the shot; may operate the camera himself under instructions from cameraman and maintain the manually operated focus on the moving objects in the mobile shot; keeps a record of continuity of shots; is the custodian of raw stock required and consumed by the camera department.

II Assistant Cameraman.

Is in charge of different appliances and equipments handled by the cameraman; opens the camera, oils it thoroughly, runs it to circulate the lubrication evenly and removes extra lubrication if any; releases different idlers and sprocket rollers of camera and cleans them with soft-brush; also cleans delicate lenses, diffusers¹¹ and picture gate¹²; loads the camera magazine in the dark room, taking into consideration the type of camera, nature of film and the original winding of rolls; unloads at the end of day's shooting different rolls, separating them as exposed and un-exposed, properly tins them, tapes the tins, prepares correct labels and pastes them on the tin with instructions to the laboratory; supervises during the take overall lighting and sees that the lights are glowing throughout the take without any

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11. Simultaneous combined depiction of multiple shots in a single shot with rising and falling lighting conditions.
 12. Position occupied by a picture frame both in a camera or projector.

flickers; watches the movements of trolley or crane and ensures that they are carried out as required by the cameraman; maintains a shooting report;

Trolleyman:

Gets the ground clear in case of linear shot, obtains two parallel planks or rails, puts them on ground and verifies that the distance between them is uniform throughout; mounts the trolley on rails, centres it and tries its movements, forward and backward; mounts the camera on a wooden stand on trolley and positions the same, as desired by cameraman; draws chalkmarks either on rails or floor to guide the movements of trolley; notes the position of artistes with which the positions of trolley are to be synchronised; pushes the trolley on rails during the actual take and operates the steering of trolley to keep it running straight; keeps an eye on moving artistes and also simultaneously on different marks to ensure that the movements of trolley are carried out smoothly, steadily and without jerks;

Music Department:

Music Director.

Composes music for songs and background music for the film; studies lyrics for their literary value and indications, if any, about the instruments to be used; ponders over the context and mood of the song and accordingly sets the lyric to a variety of tunes, having regard to current public tastes; in consultation with the director decides upon the final tune of lyric to be worked out in details for notations; finalises the number and variety of instruments and the type of instrumentalists and play-back singers to be invited; writes individual notations for all instruments; instructs playback singer as regards the starting note, pitch, speed of music and musical interludes; takes the rehearsals of songs, giving signals to musicians

regarding rhythm and keeping a receptive^{ear} on the individual performance of different instruments; gives necessary instructions to recordist regarding the highlights of take and finally supervises the take;

Views the entire picture and spots out sequences where the sentimental value can be enhanced by inserting appropriate music; composes background music, considering the mood and tempo of individual sequences; composes title music for the picture to impress the audience about the film that follows.

Job Qualifications:- 1) Wide knowledge of classical, light and folk music - vocal and instrumental, 2) Capacity to give catchy tunes, 3) Craze for novelty through variety, 4) Perfect grip over current public taste.

Music Assistant/Arranger:

Associates himself with early conferences between the director and music director; participates actively in setting to tunes different songs and suggests the number and type of instruments to be employed in the performance; attends and participates in the rehearsals of music; assists the music director in providing background music, title music & etc.

Musician:

Plays musical instruments according to notations provided by music director, either in accompaniment with voice or musical interlude or solo piece for background music, title music and scorings¹³; may give suggestions based on specialised knowledge on special sound effects, which can be produced from his instrument.

13. Recording of sound prior to or after picturisation.

Playback artist:

Lends his melodious voice in accordance with the tune provided by music director to the artiste, who is otherwise well-versed but lacks musical trends; adapts himself to the tunes of public taste by his versatility with classical or light music.

Chorus singer:

Lends his voice in a chorus song; listens to music director as he sings only the chorus portions of song and marks particularly portions of music, serving as cues for his performance; makes conscious efforts to maintain the original note and also to mingle his voice with the rest of his colleagues harmoniously; gives other oral sound effects such as whistle, hissing sound etc. and clapping sound, depending upon the contents of chorus.

Dance Department:Dance Director:

Studies the situation in the story for proper insertion of a dance sequence; determines the type of dance in the context of preceding and following sequences, having regard to public taste and contemporary art; studies musical composition, literary contents and rhythm of lyric and accordingly conceives a variety of skeleton dances, which he presents to director (if needs be, demonstrates himself) for his final selection; starts working on the details of dance on the final approval of director;

Determines the number of artistes and parts in which the song is to be split up for picturisation; if finalises the body movements and steps to synchronise with the rhythm of music; demonstrates to each dancer his/her individual role and gets a collective primary rehearsal; arranges a pre-shooting rehearsal with the leading artiste participating and gives finishing touches by self-performance, wherever necessary; supervises the take to ensure that the dance is

picturised to his satisfaction.

Dance Master.

Assists the dance director in arranging solo and group dances both at the time of rehearsals and takes; marks the type and style of dancing at the initial performance of dance director and at a later stage, when the latter is busy with further planning, takes rehearsals and guides the group dancers; may participate in the dance performance.

Dancer.

Imbibes the nature of dance and body movements involved therein on the basis of his knowledge of the fundamentals of dancing by observing physical movements demonstrated by dance director; improves upon his own previous performance in collective sequence in the light of instructions given by dance director with a view to co-ordinating the body movements of the troupe as a whole; gives exquisite performance of facial expressions and body movements in synchronisation with the rhythm of music recorded earlier.

Costing Department:

Junior Artists.

Portrays petty role of minor character; may deliver simple dialogues or give lip movements to a playback song.

Fight Trainer.

Instructs stunt artistes in the characteristic ways of using different weapons such as swords, spears etc.; demonstrates and may also act in a fighting scene.

Stunt Artists.

Depicts the role of a fighter during a mock fight, which when picturised gives an illusion of real fight on account of the skill involved.

Duplicator:

Impersonates the artiste in a role which involves risk or with

which the artiste is not conversant, such as horse riding, driving, swimming etc. or when the artiste is not available for shooting; studies necessary movements of artiste and reproduces them in the actual take, creating an illusion of reality.

Production Department:

Production Secretary.

Works as a liaison officer between the producer on one hand and director, artistes and financier on the other; secures money at stipulated periods from financier, from whom finance has been arranged by producer; executes the production schedule scrupulously with a view to curtailing production spreadover time and effecting economy in expenditure; arranges to exhibit a part of picture to distributors and negotiates with them for disposal of territorial rights at competitive rates; attends to all governmental work relating to income-tax, excise duty and all periodical returns submitted to government; looks after bank accounts.

Production Manager.

Is in charge of day-to-day shooting schedule; procures necessary shooting requirements, such as properties, cosmetics, costumes, camera and sound accessories, etc.; books dates from artistes and accordingly reserves floors in studios; settles contracts with supporting casts and technicians, other than departmental heads; calls for the required number of 'extras', dancers, fighters, etc.; ~~xxxx~~ makes after scrutiny all day-to-day payments on the set and keeps an account of the same; maintains live contacts with laboratories and ensures a check on unauthorised handling of the film by outsiders; books shifts with process laboratories for editing purposes; gets optical effects and sound effects done, as desired by the director and editor; arranges for location shooting and attends to booking of railway tickets,

reservation for lodging and boarding, requisitioning necessary vehicles, permission for shooting if necessary from relevant government and other authorities, money transactions, etc..

Production Assistant.

Keeps a track on day-to-day progress of shooting and anticipates the shooting schedule requirements; assists the production manager in arranging the shooting schedule, procuring necessary properties, booking the dates of artistes and making arrangements for location shooting; keeps different artists posted with their dialogues, shooting schedules, locations, etc.; carries out general instructions of the production manager.

Processing-in-Charge.

Is mainly responsible for obtaining the best photographic results from process laboratories; works as a liaison between the shooting and the processing crew; gives necessary instructions to light suggester, in view of his first-hand knowledge of shooting conditions regarding the probable sequences requiring improvements; instructs the processing crew on sound negative density¹⁴ and photographic gamma¹⁵; checks the tests with shift supervisor and opines on ideal conditions of development; reviews rush prints in the company of director and cameraman, and discusses with them the possibilities of further improvement at the final release level; screens all prints with a view to ensuring uniform grade release prints.

Processing Assistant.

Assists the processing-in-charge in all his duties; collects

14. Degree of opacity obtained on a negative corresponding to graded portion of light on the exposed object.

15. Factor denoting the rate of development.

the exposed film at the end of shooting shift from respective departments and scrutinises the details as regards negative used, footage exposed, test footage, density requirements etc.; makes appropriate entries regarding film in his records and after due consultation with the processing-in-charge enters proper remarks on tin labels along with specific instructions for processing; supervises processing work in laboratory in the absence of processing-in-charge; takes delivery of the processed prints and hands them over to the projection or editorial staff, as the case may be.

Publicity Department:

Publicity Manager.

Decides the nature of publicity within sanctioned amounts under publicity head and exploits to the fullest extent different media of publicity such as posters, banners, cutouts, calenders, stills, slides, press write-ups, advertisements and radio, so as to heighten the curiosity of public about the picture much earlier than its release; invites ideas and suggestions regarding the designs and modes of publicity from different artistes at his command and on scrutiny, instructs them on the final product to be desired; organises a pre-release show, inviting artistes, technicians, men of outstanding social status and journalists; gets adequate literature (write-ups and pamphlets) prepared for distribution to the audience in advance.

Publicity Artist.

Views full picture and all stills with the object of determining the best frames or combination of frames for making attractive posters; may conceive for the sake of attracting crowds the postures of artistes, having a bearing on the scene but not necessarily depicted in the film; on fixing the size of poster, converts the still to poster dimensions and with colour crayon draws an outline to appropriate scale; fills in details with colour combinations and

enhances the facial beauty of artistes by proper selection of colours; makes the poster vivid by the addition of lighting effects by patches at suitable places.

Poster Painter.

Mixes under instructions from poster artist different colours in specific proportions to give tonal colour combinations; gives base coating of colour to render the canvass uniform; draws on canvass vertical and horizontal lines for the use of artist; may draw rough sketches as instructed by artist, leaving him to finish the details.

Publicity Writer.

Prepares publicity write-ups, reviews for magazines, news-papers and radio, text of advertisements, etc., so as to push the picture in public eyes; screens through all literature and statements regarding the picture so as to secure the widest and most favourable publicity.

Still Cameraman.

Takes a number of still photographs¹⁶ with artistic flare to serve the purpose of theatre publicity, posters, cut-outs, showcards, continuity, etc.; re-arranges lights to achieve finer results, which he can do on account of his frame being limited in space; takes exquisite stills, relying on his dexterity in lighting and knowledge of alluring postures, not necessarily photographed in the picture; takes stills at key positions of artistes' movements to serve as costume and camera continuity; gives finishing touches to stills to make them look more attractive.

Assistant Still Cameraman.

Is a custodian of still camera, its accessories, negative,

16. Static photographs of participating artistes at key position of the story for the purpose of publicity, continuity, etc..

printing papers, chemicals, etc.; keeps an inventory of all the articles in stock and indents from time to time requisite material on approval of the still cameraman; assists the still cameraman on the set in fixing camera positions, mounting of lens and keeping necessary negative ready; maintains regular notes of stills taken for the day and their purpose; assists the still cameraman in modifying lighting conditions to suit the requirements of stills; prepares necessary processing solution in requisite proportion; processes the negative and positive prints in a dark room and enlarges them, if required.

Make-Up Department:

Make-up Artist.

Gives facial treatment to artiste to render his face photogenic and realistic; obtains details from director about the role of artiste, his age, status, physical oddities or deformities and by the use of various contrivances adapts the artiste to the character portrayed in the film; applies cosmetics to the face after a base coating with a view to getting tonal renderings and avoiding facial glare resulting from inevitable perspiration; uses different combinations of colours to suit camera requirements; draws wrinkles, cuts, wounds, etc., whenever required, by use of crayons; may put on moustaches, beard, wigs, etc. and gives special treatment to eyebrows so as to transform the face completely as required in the picture; renders special make-up such as blank eyes, baldness, elephant god's face, etc. by devices specially designed for the purpose; keeps a record of make-up continuity throughout the picture.

Make-up Assistant.

Undertakes the make-up of supporting casts and junior artistes independently by applying cosmetics and rendering their faces photographically smooth; remains present on the set throughout the

shooting and from time to time restores by padding the make-up of artistes, deteriorated due to perspiration; helps the artistes at the end of day's shooting in removing the make-up; looks after make-up materials and indents them.

Hair Dresser.

Dresses and conditions the hair of leading female artistes. With a view to rendering her more attractive, taking into consideration the status of artiste, the times and styles then prevailing; introduces a variety of styles by combination of historical ways of hair dressing and her original ideas; maintains mental notes of different hair-styles introduced in different scenes for a given artiste.

Assistant Hair Dresser.

Dresses the hair of extras and attends shooting to give last-minute touches to the hair style of female artistes.

Costume Department:

Costume-in-charge.

Is a custodian of all costumes, draperies and wardrobes designed by the art director or costume designer; may purchase, hire or get them stitched from professional costumers; maintains all the materials in good condition by the use of requisite antiseptics and germicides; drycleans costly costumes after every use and supplies them to the artiste on demand; keeps an inventory of all costumes entrusted to him; gets them repaired from tailor or darning in case of any damage; maintains costume continuity.

Costume Assistant.

Generally assists the costume-in-charge in all his duties in the maintenance and upkeep of costumes and storing them in good condition; supplies necessary costumes to artistes under instruction from costume-in-charge and assists them in wearing; makes minor alterations and repairs the costumes by sewing by hand or machine.

and irons them properly; removes stains, if any, with bleaching agents; keeps a record of ~~any~~ costumes issued and returned.

Embroiderer.

Inscribes embroidery on costumes to remove colour monotony and to add beauty, indicating the times of story; introduces novel designs of embroidery by using silk yarn and gold thread for the purpose and enhances their charm, particularly in colour pictures.

Editing Department:

Editor.

Conceives the story in all its aspects and assists the director in its unfolding in a perfectly artistic manner; assembles thousands of shots in such a way that the narration of story achieves the maximum effect by seeing that the tempo¹⁷ or rhythm of a picture is properly maintained; views rushes and issues necessary instructions to his assistant to arrange approved takes in proper sequence according to scenario; attends shooting during picturisation of songs to ensure correct lip movements synchronised with sound and also during climax scenes to offer his views in regard to the flow of story as related to screen footage; offers suggestions regarding insertions and variety of shots in which the song may be split up; recommends scenes requiring trick shots, sound effects, etc.; offers specific suggestions to cameraman regarding introduction of camera fade-ins, fade-outs, dissolves, etc.; anticipates the reactions of audience and views rushes with a view to heightening the tempo and flow of story;

Views the picture after completion of shooting in the company of director and spots out portions, where appropriate background music

17. Picturisation of a cinematographic sequence in progressively calculated shots to achieve the heightening effect in minimum of celluloid.

would heighten the dramatic impact of story; spots out portions requiring sound effects, selects from sound libraries stock shots such as storms, lightening, accidents, etc.; to avoid the risks of picturising them and by the intelligent use of whole or portion of them achieves astounding results, which create an illusion of reality; prepares loops in case of recurring effects with a view to saving negative; fixes the starting cue marks on different tracks for the guidance of projectionist and re-recordist after taking a number of trials either on moviola¹⁸ or editing table; guides the re-recordist and satisfies himself that the mixed track stands to the conception of director and himself.

Job Qualifications:- 1) Methodical disposition, 2) Analytical mind, 3) Musical sense, particularly rhythm, 4) Dramatic sense.

Assistant Editor.

Views the rushes along with editor and relying on the shooting reports of assistant director, cuts and segregates o.k. (accepted) and n.g. (rejected) shots; maintains a log-book of all o.k. shots and sends the same to the joiner for joining them in proper sequence; takes copious notes, under instructions from editor, regarding situations for sound effects, trick shots, background music and re-recording; officiates the editor during his absence to attend to director in respect of pending editing work and also back references.

Joiner.

Joins together all o.k. shots of rushes so as to give smooth and stable joints, taking care to see that sprocket-holes are properly matched, no air bubbles are left, no excessive cement is used and no thick joint is effected, which would otherwise offer difficulties

18. Equipment reproducing both sound and picture on a miniature screen used by the editor.

while passing through the projector; winds and rewinds rolls without damaging emulsion; is a custodian of all rushes, negatives etc., and keeps them in tins, properly labelled.

Sound Department:

Chief Sound Recordist.

Executes major part of sound recording such as song recording, background music, re-recording etc.; studies the situation of a song in the picture and allocates different microphones to groups of instruments and artistes in order to bring out their prominent characteristics; takes a complete rehearsal of song, ascertaining from music director the predominance of certain instruments and the position of musical interludes; guided by the script of the song along with markings of interludes, develops a fair degree of anticipation; records the song after fully satisfying the director, music director and himself;

Views in the company of director and music director the screening of relevant pieces of picture selected for background music with attention focussed on the level of dialogues recorded; positions different musicians with respect to microphone, keeping in mind their relative predominance and the final effect desired; records background music having simultaneous regard to the level of dialogues originally recorded;

Confers with director about the nature and scope of mixing (re-recording) and the maximum number of sound tracks that may have to be mixed; keeps mental record of such shots throughout the picture that have not been accurately recorded due to circumstances beyond the control of recordist; views individual rolls and listens to different tracks without any manipulation just to gauge their contents and sound levels; takes sufficient number of rehearsals concentrating at a time to finalise adjustments of one particular

sound track; recalls frequency contents of tracks, individually and collectively and accordingly handles simultaneously relevant controls for frequency discrimination-cut offs or boosting;

Job qualifications:- 1) Discriminating musical ear, 2) Accurate time sense, 3) High sense of perception, 4) Familiarity with musical instruments and their characteristics, 5) Deep knowledge of melody and harmony, 6) Differential reception of musical instruments, 7) High degree of concentration, 8) Nimbleness of fingers, 9) Alert mind, 10) Capacity to detach oneself from surroundings, 11) Memory for sound.

Sound Recordist.

Records faithfully all dialogues, dubbing and sound effects; studies the story, its different sentiments, situation, moods and their vocal characteristics and decides upon the level of recording dialogues;

Selects the proper type and number of microphones, depending upon the nature of recording and the type of shot respectively; views camera field through the view finder with an idea to positioning the boom; takes a complete rehearsal under working conditions and accordingly instructs the boom-man, regarding the tilting and panning of boom and the facing of microphone, maintaining at the same time a fixed finite distance between the artistes and microphone; takes a complete sound test from the recording booth and determines the position of adjustment and improvement with the help of electronic devices at his command; adjusts the level and tone of individual artistes during the take, achieving thereby their relative predominance; gives necessary instructions to the boomman or artiste regarding any deficiency on his part and finally takes the shot with due attention being paid to the context in respect of immediate following and preceding shots;

Records dialogues (dubbing) for such shots of location shooting, where the original dialogues recorded are not presentable due to pick up of electro-magnetic disturbances, etc.; synchronises dialogues spoken and the lip movements of artistes by a number of attempts at the rehearsal stage to the point of perfection and finally records them, while the picture is run for the guidance of artistes; repeats these operations several times in cases of pictures of different linguistic versions;

Discovers and executes ingenious methods of obtaining such effects as distinct echoes, reverberations¹⁹, resonances etc.; attends to routine maintenance of all sound recording equipment.

Assistant Sound Recordist.

Assists the sound recordist actively in all aspects of recording from sound rehearsal stage to the final phase of re-recording; selects necessary appliances and equipments required for the day's shooting and checks them thoroughly for their faithful performance; ensures during rehearsal under personal supervision on the set that optimum conditions are maintained for faithfully recording; decides upon the correct exposure for a given negative and from time to time keeps the recordist informed about the level of sound recorded as a countercheck over the visual volume indicator and loud speaker;

Maintains regular detailed report from shot to shot regarding acceptable and un-acceptable total footage exposed; packs exposed negative at the end of day's shooting and tins it with labels, giving detailed instructions to the laboratory;

Makes readily available to recordist in case of dubbing and sound effects, such sound effects from library as are desired and runs them on the electric turn-table for a thorough grasp of recordist; rehearses with chief recordist while re-recording, with equal concentration in respect of frequency control operations in

19 : Phenomenon of sound waves persisting over a period of time.

cases of mixing more tracks, where due to elaborate equipment and the wide number of tracks, the re-recordist is governed by his physical limitations; operates necessary controls during the mixing take under instructions from the recordist, keeping an eye over cue marks on the sound track on one hand and the recordist's running instructions on the other.

Boom-Man.

Operates the boom during rehearsals and takes in respect of multiple and simultaneous operations like the tilting and panning of boom and the facing of microphones; concentrates his attention on the dialogues of different artistes and the sequence in which they occur to effect in time proper facing of the microphone for maximum dialogue pick up and ideal recording conditions.

Art Department:

Art Director.

Directs, co-ordinates and participates in the art work concerning designing of sets; visualises the picture, refers to archaeological library and literature pertaining to contemporary art and decides upon the designs of set, decorative property, pattern of costume, hair dressing styles etc.; prepares the sketches of set as well as background, taking into account the camera positions, artistes' movements and colour combination and hands them over to the setting master for execution; instructs and supervises the work of setting mistry, background painter and moulder; inspects the construction of set and gets it erected to his satisfaction; brings out artistic colour harmony and freshness in the case of colour picture.

Job Qualifications:- 1) Mastery over study of contemporary art, customs, usages and their adoption to modern requirements, 2) High sense of different colours and their respective photographic tonal

reproduction, 3) Craze for novelty through variety.

Assistant Art Director.

Generally assists art director in the discharge of his duties, particularly during erection of sets; prepares the rough sketches of set for approval of art director; provides reference literature useful in designing sets.

Setting Master.

Supervises and co-ordinates the construction of sets according to sketches prepared by art director; prepares ground plans based on sketches, taking into consideration the availability of floor area, scene to be shot and the requirements of camera positions; makes an inventory of the materials required for complete erection of set and erects the set by remodelling property available in studio and procuring new property which cannot be prepared economically; confers with background painter on the nature of background, perspective of scene and colour combination from photographic point of view; instructs set painters as regards tonal qualities required with a view to properly maintaining necessary photographic depth of different parts of set.

Setting Mistry.

Is responsible for getting the property prepared to scale according to sketches given by setting master and for the erection of set; selects the type of wood required for preparing property; instructs carpenters to prepare property or may prepare it himself, if required; decides upon allocation of work regarding different saw machines, plywood cut work, stencils etc. among carpenters and their assistants; supervises dismantling of sets.

Carpenter.

Constructs different pieces of properties such as pillar, staircase, etc. according to the sketches provided by setting mistry;

may operate different saw machines, drilling machines and lathes; repairs or remodels existing property and is responsible for its storage and maintenance; makes 'period furniture' required on the set;

Assistant Carpenter.

Assists the carpenter in all preparatory wood operations, such as wood levelling and finishing with the help of simple tools; erects the set under instructions from setting master, ensuring that the erection is sufficiently rigid and stable against collapse and at the same time it offers little difficulties while removing; remains present on the floor at shooting time and carries out any alterations or last minutes changes in the set as desired by director or cameraman; dismantles the set after shooting without causing any damage to property, which can be used again.

Polishman.

Mixes different oils, thinners and solvents to get the required colour tones, not available in the market; gives a finishing touch to the property by the application of various types of polishes, having regard to fibrous qualities of different varieties of wood, so as to enhance its elegance many more times; paints designs of wooden cross-sections on metallic surfaces, which after polishing creates in illusion of wood.

Machineman.

Operates different saw machines such as band saw, hack saw and lathes for cutting wood of desired dimensions for the use of carpentry department.

Tapist.

Fills the crude corners and hills and dales of the set with certain material and renders the surface into a homogeneous one; pastes papers in the case of uneven wooden surfaces to enable the painter to effect smooth and uniform painting.

Assistant Tapist.

Assists tapist in rendering the set even and making required materials readily available to him.

Moulder.

Prepares models, statues, plaques, design patterns and even earthenwares to decorate the sets; prepares on the basis of sketches from art director an inventory of materials already in stock and those required to be obtained; prepares negative moulds out of wood by carving it with a set of delicate instruments or of plaster of Paris, bringing out required contours and details of facial expressions even prior to colouring; makes wire skeleton to serve as a frame-work for preparing statues; coats the skeleton with clay and plaster of Paris and reproduces finer details of the statue; prepares a miniature set on similar lines to serve as model for actual set, trick photography, special or risk shots and background figures for titles.

Assistant Moulder.

Does all preparatory work such as mixing of clay in different proportions, preparing plaster of Paris and executing rough wood work; takes positive replicas of models, design patterns and decorative designs; repairs damaged models.

Background Painter.

Paints landscape, giving external view and supplements the studio limitations regarding space by increasing it artificially with the help of paintings on huge sheets of longcloth or gunny bags; discusses with art director and cameraman the nature of scenes to be depicted, colour combination and probable camera positions; marks outlines with the help of crayons on background curtains already washed and coated with uniform water colour base; paints the details of background, depicting wide horizon and giving necessary depth to the view by proper selection of colours, having regard to

the sensitivity of film to different colours; lays emphasis on proper perspective and picturises faithfully the natural lighting conditions associated with exterior landscape; instructs spray painter as regards nature of clouds and sky, bringing out the beauty of scenery to be painted on the background.

Job Qualifications:- 1) High sense of perception, 2) Ability to draw captivating landscape out of vocabulary of visualised panoramic scenes, 3) Knowledge of tonal combinations and matching colours, 4) Deep sense of perspective to the extent of creating an illusion of reality, 5) Knowledge of photographic separation²⁰, 6) Insight into territorial characteristics.

Set Painter.

Makes the set smooth by first even coating of a base colour; paints different parts of set by using different colour combinations, taking into account the camera requirements, getting photographic separation of different surfaces in the exposed negative; prepares stencils and cut-outs from thin metal sheets by carving them and paints different designs along the borders of surfaces to make the walls appear more pleasing to eyes.

Assistant Painter.

Mixes different colours in requisite proportions under instructions from painter; washes curtains and flats so as to remove earlier colour coatings, if any; paints parts of sets requiring single colour paintings of simple nature; attends to any alterations and modifications in paintings during the progress of shooting; paints clouds and sky by spraying colour with a spraying nozzle or a spray-gun

20. Photographic phenomenon with the use of correct lighting conditions and filters, achieving sharp lines of demarcation between two objects in black and white film and portions of different colours in case of colour photography.

trigger to achieve different shades and strata in the clouds.

Decorator.

Determines proper decorations to be used for each scene, depending on the story and the association of set; prepares or obtains floral requirements and decorates the set to give it an illusion of reality; arranges furnitures, fixtures, picture frames etc. as required in the story.

Assistant Decorator.

Assists the decorator in his preparatory work in making decorative properties, such as flowers, creepers etc..

Propertyman.

Maintains an inventory of all properties entrusted to him and makes available the required property on demand after making necessary entries in the register; keeps in custody and preserves old property for use in future.

Assistant Propertyman.

Picks up and delivers the correct property required by propertyman and does ancillary manual duties.

Store-keeper.

Is a custodian of articles required in studios and is responsible for maintaining a register of all the materials required and consumed; supplies materials to different departments after a careful scrutiny of the indents; submits quarterly statements of the stock in hand and prepares an annual budget for the ensuing year; keeps lively contacts with the market and studies the price behaviour of articles, he usually keeps in stock; may purchase articles required for the stores and when purchases is responsible for such transactions being carried out at competitive rates.

Assistant Store-Keeper.

Maintains a register of all inward and outward materials; supervises the transfer of materials from stores to respective departments; takes a count of all materials prior to submission of budget.

Mason.

Executes structural jobs such as ponds, bridges etc. required in the set.

Settingman.

Brings property from the carpentry shop to the floor and assembles the same under instructions from setting master; helps assistant carpenters in dismantling the set, without causing any damage to property; attends shooting for effecting any change in set construction and the movement of property from one part of set to another, as desired by director.

Lighting Department:Electrician.

Determines the number and varieties of lights required for illuminating the set; supervises the fixing of lights on hanging bridges and galleries; decides upon the allocation of lights to different switch boards with emphasis on uniform balance of load on all the three phases to avoid interruptions in power supply due to overloading individual phases; assists the cameraman in arranging general set lighting; keeps an eye upon overall illumination, when the set is fully lighted and makes sure that the final intensity as conceived by the cameraman has not lessened due to optimum load being exceeded; obtains electric supply from another floor or starts studio generator; if any, when the load is likely to exceed the optimum supply;

Operates himself electrical appliances such as

dimmers²¹, contact bridges etc. in case of special shots, like lightening, storms, rising sun etc. and ensures their correct and timely operation in synchronism with camera depiction; is responsible for operation of all fire extinguishing devices, which he may operate himself; attends to upkeep and maintenance of all electrical appliances of studio, such as fans, refrigerator, air-conditioners, indicators, etc..

Assistant Electrician.

Executes the job of establishment and set wiring; undertakes the installation of simple electrical appliances in the studio; operates switch boards during the progress of shooting and ensures uninterrupted and faultless three phase power supply for the operation of camera; is responsible for affording safe and sure earthing for all lights employed on the floor to avoid electrical shocks to the personnel handling lights; executes all the duties and responsibilities of electrician during night shifts.

Lightman.

Erects hanging bridges at high altitudes by using wooden planks, suspended by hanging ropes; lifts lights from studio floor to hanging bridges and galleries by means of a pulley suspended from beams; shifts lights to proper positions by physically lifting them at high altitude over swinging bridges, involving grave risks to his own person as well as costly lights, which, if moved with slight miscalculations, may fall down with their consequent shattering and resulting in electrical short circuit and fire; fixes lights under instructions from cameraman at given places and adjusts their effective intensity by altering the distance between the reflector

21. Electric potentiometer used in series with lights for rising or fading illumination, depicting rising or setting sun in a single continuous shot.

and the source of light; puts on and off lights during shooting, as directed by cameraman; makes available to the cameraman different types of lights and other ancillary equipments, such as diffusers.

Projection Department:

Projectionist.

Exhibits the rushes faithfully to the production crew; examines the print for any damages such as weak joints, sprocket holes, run-overs, etc. and sets them right, wherever possible; ensures proper alignments of different parts of projector; checks the charging conditions of batteries and voltage at different stages of amplifier to ensure ideal conditions for high fidelity reproduction; starts the d.c. generator for the supply of necessary voltage to operate the high intensity arc for throwing the properly illuminated image of picture-frame on the screen; starts the projector and after ensuring that the film has taken sufficient speed opens the dowsers to cast the image on screen; sees the screen through the window and readjusts the mirror, distance between the two electrodes and focussing too, if necessary; directs his assistants to strike the arc of the other projector on the appearance of the first cue and starts the electric motor of the second projector; closes and directs to open the dowsers of the first and second projector simultaneously on the appearance of the second cue, effecting a smooth changeover without the knowledge of audience;

Runs the sound track at the time of picturisation of song, ensuring to start projector on the fixed mark given on the film instantaneously on the signal given by sound recordist on the talk-back; grasps the nature of re-recording in respect of different tracks to be mixed up; scrutinises different marks given by editor on different rolls for his guidance at the time of operation and accordingly threads the main roll (married print) in projector and the other

tracks on different auxiliary sound heads, if necessary; removes the normal picture-head²² masks so as to get the image of sound track on the screen for the guidance of sound recordist; gives as many rehearsals of projection (all tracks running simultaneously) as desired by recordist, concentrating his attention on the effective working of synchronisers selsyn-driven²³ electrical interlocking devices;

Projects previously photographed dynamic scenes on a specially erected wide screen in a studio at abnormal intensity of projection, in the foreground of which is arranged a part of the scene to be shot in conjunction to give in the combined frame an illusion of relative motion.

Assistant Projectionist.

Rewinds the roll, ensuring that the beginning of roll is its opening scene; threads such a rewind roll in a projector and does work preparatory to projection of film; marks the progress of film on the screen through the window and keeps himself alert for the starting cue marks on film; strikes the arc and starts the motor on the first cue mark and on the second opens the lamp house dower almost instantaneously; repeats the operations of threading etc. for all the rolls in alternate projectors; rewinds the rolls, puts them in proper tins and sends them for storage; assists the projectionist during re-recording by supplying him requisite rolls and operating auxiliary sound heads.

22. Portion of a projector from where a picture frame is projected on the screen.

23. Process of working with three phase electrically inter-locked motors at the highest degree of constant speed.

Maintenance Department:Mechanic.

Looks after mechanical upkeep and maintenance of camera, generator, boom and playback machines; is in charge of a small workshop with such accessories as lathe, buffing machine, electric motors, vices and requisite tools; corrects any variations in the camera motor rotations by proper alignments and adjustments of electrical circuits concerned; sets right any failure of camera due to intermittent operations or total cut off of the three phase supply by poor or defective contacts; attends to periodic check ups and lubricated working of camera and when required, executes perfect alignment²⁴ of the camera shutter; is responsible only for mechanical upkeep of generator and gives his advice to the electrician in case of any breakdown with a view to restoring the working condition at the earliest time; sets right the boom rod in case of the slip over of wire by removing the whole wire and taking it properly over the pulley; prepares in his shop the supporting arms of boom in case of their breakage; undertakes periodic check-up of playback machine, with stress on assessment of working speed and alignment, if any; adjusts the slit (azimuth adjustment)²⁵ for quality reproduction of sound track.

Generator Operator.

Operates the generator for additional supply of electricity to studio and also for location shooting; ensures during the operation of generator the supply of constant voltage at the receiving end by operating and varying number of resistances in series with the supply circuit; carries out repairs of diesel engine which operates the generator; is himself responsible for the upkeep and maintenance of

24. Synchronising the shutter movements with the movement of the picture negative so as to cover it from light, while in motion.

25. Sharp horizontal adjustment of the focussing photographic ~~aw~~ reproduction of the slit on the film for high fidelity result

the generator and undertakes periodic check-ups of the same to ensure it in proper working condition.

Process Laboratories:

Laboratory-in-charge.

Is mainly responsible for attracting clientele, negotiating with customers, deciding business policy and allocating jobs on broad basis; studies ~~satisfi~~ statistics of footage processed and raw materials consumed during the previous year, draws proper budget taking into account present market trends and Government policy, requisitions raw stock, chemicals, machinery and when required attends to import licences; keeps himself actively associated with different trade organisations, effecting closer contacts with producers and directors by offering them maximum facilities and assuring a high degree of finished turnover; studies international literature on the subject and latest innovations in film processing techniques; attends to business correspondence and keeps a regular eye on progress of day-to-day output; attends to personnel matters.

Chief Technician.

Is solely responsible for the quality control of processed film and minimum consumption of raw materials; draws out day-to-day schedule of turnover, depending upon incoming business and co-ordinates the technical activities of all departments; brings into play his first-hand knowledge of different processes involved, assesses the quantum of several processing solutions for the day and issues instructions to Chemical-in-Charge to prepare such solutions on certain set formulae; prepares literature and charts for reference and guidance during processing; may supervise or review the quality of release print himself in case of outstanding clientele; issues necessary instructions to developing personnel as regards the

sensitometric²⁶ characteristics of film emulsion and consequent alterations in development timings in case of raw stock of different manufacturer being supplied by costumers; instructs the developing department as regards developing time based on chemical analysis done by shift chemist at regular intervals.

Shift Supervisor.

Assists the chief technician in all aspects of processing, keeps closer contacts by supervising laboratory personnel to control the quality of processing and is responsible for achieving day-to-day targets of footage to be processed; allocates work among different personnel and deploys them wherever necessary; gets a number of pieces from the test portion of exposed negative developed to different timings; decides by examining them against light the correctly developed piece and issues instructions to developer for correct development time for the roll; screens positive print to determine grade and tonal quality; examines the reports of work done and defects found therein, ascertains the causes for the same and attends to other difficulties during the shift; directs reprint of doubtful or defective reels after screening; puts thread marks at appropriate places in the negative for taking out reprints of the positive reels; indents necessary raw-stock and chemicals required for the shift; prepares consolidated statements of footage developed and printed and chemicals used during his shift as also failures of any equipment and submits the same to the chief technician.

Developer.

Develops exposed negative to the accurate degree of development on instructions from shift supervisor by varying the timings during

26. Pertaining to the science, embracing qualitative and quantitative study of sensitivities of photographic emulsions to different sources of illumination.

which the film passes through processing solutions; maintains the level of developing solutions, if they are not to be replenished²⁷; checks temperature from time to time and maintains correct humidity in the drying cabin; threads the machine and runs a white piece to examine it for lines, scratches or other mechanical damages;

Divides the exposed test piece into a number of pieces, develops them manually to various timings, fixes them and hands them over to the shift supervisor to select a piece for ideal development; loads the exposed roll in the development magazine and stipples the beginning of roll with the out-going roll by keeping a finite length leader²⁸ in between; adjusts or varies timings of developing of different rolls by means of dipping the pulley bars in respective solutions to a greater or lesser extent by lowering or raising them; observes against safe light first few inches of developed negative passing out of developing tank to ensure that the results are according to estimates; compensates in case of slight density variations by readjustment of timing; ensures by constant vigilance and concentration on idlers and rollers between baths²⁹ that no solution from one bath gets into another; makes sure that the pneumatic squeezers on both sides of the processed film are working very accurately to render the film free from moisture, without damaging the valuable exposed and developed emulsion; keeps a regular eye over the level of solution in all the three baths, by maintaining constant

27. Process of maintaining the correct chemical concentration of developing solution, taking into account their deteriorating strengths with footage developed.

28. Portion of unexposed waste film at both the ends of a reel at development and projection stage to afford a start.

29. Containers of processing solutions in a laboratory.

additions of requisite replenishers from time to time; sees that the film runs through the developing machine smoothly without any damage; works in total darkness but at times may be provided with red safe lights.

Assistant Developer.

Assists the developer in all his duties; acts as a developer during his absence for lunch for half an hour every day; empties tanks, washes, rinses, refills them with fresh water and replenishes the developing solutions; empties hypoe and developer tanks, when the solution gets exhausted, cleans the tanks along with rollers, sprocket wheels and squeezer with acid or soda-soap water and refills them with fresh solutions; applies oil etc. to the cleaned parts and checks the machine to ensure that it is reassembled properly and is in working order; maintains report of the work done in the shift.

Cabin Boy.

Cleans the drying chamber and sets off and on heaters in order to maintain requisite temperature in the drying chamber: ensures that drying operation³⁰ is neither inadequate nor does the film crackle or shrink due to over-drying by properly adjusting the drying temperature; removes rolls coming out of cabin, properly packs them in tins and sends them to shift supervisor for a check up; helps assistant developer in cleaning of machines and tanks, filtering and refilling of solutions; keeps an eye over the film coming in and out of cabin and coming through squeezers and that rollers and squeezers are working properly.

Light Suggester.

Is solely responsible for improving upon the photographic shortcomings of cameraman arising out of inadequate facilities, equipment

30. Final step in processing where the moisture adhering to the film is removed.

deviating from normal performance, fluctuations in mains voltage due to varying loads etc. by subjecting the developed negative to a thorough visual scrutiny more than once and rectifying such shortcomings by suggesting increase or decrease in the intensity of printing lights over such footages throughout the negative; takes the developed negative over a spool, illuminated ground glass and another take-up spool to which is coupled a footage indicator; closely examines the negative from beginning to end against light and makes a preliminary observation as regards unequal lighting conditions or undue thinness of the negative; dictates to his assistant the footages as against the numbers of lights, depending upon his conceived judgment of rise or fall in printing lights; if required, repeats the operation to effect a counter-check and brings his suggestions as near an ideal as possible.

Assistant Light Suggester.

Writes light suggesting cards as dictated by light suggester, giving footages and numbers of printing lights; checks that the number of notches in the negative is equal to those on the light suggesting card; winds and rewinds the roll, without causing scratches on the negative; threads the picture and/or sound negative for reprints; writes a report of the work done in the shift.

Negative Cleaner.

Cleans the negative delicately under uniform pressure on both sides by holding the film between pieces of hygienically cleaned chamois leather to remove any foreign material possibly associated with negative, while handling it in the light suggestion department; examines the negative immediately after it is received in the laboratory from customers to notice damages, if any; keeps a record of the work done and writes a report on the same.

Knotcher.

Prepares a pilot knotted roll out of a waste roll of a given

reduced scale for the use of printer on an automatic printing machine (debrise); puts the negative roll on a take-off spool and takes it up on the take-up spool; does similar operation on a waste roll of a considerably smaller length, the two spools being coupled together through gears of reduced ratio; winds the negative roll and on the basis of a chart provided by the light suggester punches necessary knots on the waste roll corresponding to the given footage.

Checker.

Checks both negative and positive film, the former before and the latter after printing, for any damages such as sprocket runovers, weak joints, thick joints, sprocket hole damages, pin marks, etc. and sets them right, wherever possible; effects a thin and uniform coating of transparent wax, preventing the film from getting stiff and shrunk due to deteriorating effects of period and temperature; examines sync marks at the beginning and end of each roll; notes footages of damaged or spoilt portions and writes a report in details after checking each roll.

Winder.

Winds and rewinds rolls of negative and positive film at different stages of processing to get the film in proper order of beginning and facing the emulsion side by applying uniform pressure and a steady speed to get the roll of uniform surface; rewinds the unexposed positive depending upon the make of film and machine using it.

Printer.

Takes out married prints, master negative³¹, dupe negative³²,

31. Secondary negative taken from the first married print from which dupe negatives are taken for release print purposes.

32. Secondary negative obtained from the original print for securing further prints so as to safeguard the original negative.

re-recording copy, release print and trailer print; cleans the machine before working it and ensures that it is free from all film particles; notes picture and sound negative raw stock after checking its variety, type and emulsion number; takes test on the requisite voltages, lamp positions, amperes etc. as per notations given; while working on debrie machine, threads the picture negative, sound negative and unexposed positive one over the other through the exposing printer gate and closes the gate, maintaining just tension for smooth passage of all the three rolls; winds the leaders of all rolls on different take-up spools, loads the knotted roll on a different exel coupled to the main shaft through gears of reduced ratio; starts the printer and concentrates his attention on the picture and sound gates, change of lights and different notches in concurrence with footage indicated; packs exposed positive in light-proof tins and despatches them to the developing department and the picture and sound negative to the godown for storage;

While working on Bell and Howell machine, effects printing of married print in respect of picture negative only by manual operation of pointer, rotating round a pivot against the number of light, which when contacted changes respective lights; keeps a close eye on light suggestion card, giving number of lights and respective footages and also on his main job of instantaneously changing light numbers, corresponding to the exact footages.

Assistant Printer.

Assists the printer on debrie machine and acts as a printer during the latter's rest interval; prints sound track on the Bell and Howell machine on the sound positive, which has already been exposed for picture negative; adjusts under instructions from printer the intensity of exposing light for faithful quality of sound, without sacrificing the quality of picture negative; makes cement joints to

pieces of raw stock; checks at the end of shift exposed positive and unexposed balance and gives instructions to writer for their delivery to the respective departments.

Writer.

Maintains a detailed report of the shift work in respect of name of production, picture title, footage, make of film, emulsion number etc.; writes labels on tins containing exposed prints for the guidance of developing department.

Chemist.

Analyses different bath solutions in respect of percentage composition of the constituents and on the basis of findings assesses the deteriorating concentration of baths necessitating periodical replenishments; draws charts such as footage developed versus concentration baths, time of development versus gamma and accordingly suggests any finer corrections in the time of development according to timing as obtained from test pieces; draws sensitometric curves for all current formulae for different emulsions generally used by the laboratory and displays the same on walls for ready reference and quick computation of time of development for any emulsion and density required; may undertake the working of silver recovery plant from hypo waste or in the alternative estimates its value; keeps himself well informed about the latest processes of developing, any changes in the chemical formulae of developers³³ and new photographic emulsions introduced in the market.

Chemical-in-Charge.

Is the custodian of all chemicals required by the laboratory and is responsible for chemically pure material being used and also for

33. Chemical solution giving a visible image by its action on the latent exposed negative.

their preservation against deterioration by infectious fumes, poor handling, defective storage etc.; decides under instruction from the chief technician the formulae of developing solution to be used for the day and accordingly instructs the mixer to prepare necessary baths; keeps regular statements of materials consumed and stock on hand and indents the chemicals well in advance; takes periodic checks of the chemicals from godown to ensure that the surroundings do not have deteriorating effect on their sensitivity; prepares quarterly and annual budgets of chemical requirements of the laboratory on the basis of number of baths used and nature of formulae and relying on such budgets recommends to the Laboratory-in-Charge to apply for necessary import licences.

Mixer.

Prepares various processing solutions after weighing chemicals and filtering them, under instructions from the Chemical-in-Charge, taking care to use pure water for the solution and to dissolve the chemicals in proper sequence to avoid undesirable reactions; keeps the solution thoroughly stirred while mixing; maintains developing solution at a certain temperature with the help of thermometer and ice provided for the purpose; submits specimen of different solutions for the approval of chief technician.

Maintenance Engineer.

Is exclusively responsible for the proper upkeep and maintenance of all equipments, appliances and machinery; takes periodical checks of machines preferably on a non-working day by cleaning, oiling, lubricating and in a few cases overhauling; stocks necessary catalogues, diagrams and layouts of different equipments for ready references so as to enable him to localise the fault in minimum time and set it right quickly; is thoroughly conversant with assembling, erecting and dismantling the processing machinery and undertakes installation and

assembly of new machinery, if required; keeps a regular track on reports from different sectional heads and maintains a logbook of complaints received, repairs effected and time taken for the same; in case of spare parts to be replaced, gets them prepared in his shop as per specification drawings.