

« Maxim guns can check actions, but they cannot control thoughts. The coloured peoples think a great deal less of us than they did, even though they may be too cautious to act on their opinions. For this state of things the movies are not, of course, alone responsible. The spread of native education, the unedifying spectacle of the World War, the talk about self-determination and the sacredness of nationality, with promises of liberation made and never carried into effect—these have done much, perhaps most. But the share of Hollywood in lowering the white man's prestige is by no means inconsiderable. A people whose own propagandists proclaim it to be mentally and morally deficient cannot expect to be looked up to. If films were really true to life, the whole of Europe and America would deserve to be handed over as mandated territories to the Basutos, the Papuans and Andaman pygmies. Fortunately, they are not true. We who were born in the West and live there know it. But the untutored mind of the poor Indian does not know it. He sees the films, he thinks they represent Western reality, he cannot see why he should be ruled by criminal imbeciles. As we turned away disgusted from the idiotic spectacle and threaded our way out of the crowd, that strange aquarium silence of the Javanese was broken by a languid snigger of derision. Nothing more: Just a little laugh. A word or two of mocking comment in Malay, and then once more the silence of fish. A few more years of Hollywood's propaganda, and perhaps we shall not get out of an Oriental crowd quite so easily ».

The book is by Aldous Huxley and is called *Jesting Pilate*, travel pictures from India, Burma, Malay and America. The cruel pages quoted here refer to a cinema show which the writer witnessed at Batavia in the Gambier Park. And in Malay, as everyone knows, the temperatures run high. We shall meet again with the early autumn rains. — C. P.

## EXPRESSION

In 1589 Giovanni Battista della Porta gave expression to the idea that it ought to be possible to collect thoughts, sounds and words in a lead tube, capable of being closed, so that it would be possible to have a perception of them again by merely opening the top of the tube. This lead tube which has shown

itself a regular Pandora's box is the first chapter in the history of the sound film, as Dr. Joachim remarked in a lecture given by him before the Kinetische Gesellschaft of Berlin on the occasion of the recent cinema congress. (« Kinotechnik », No. 10).

About two hundred years later, towards the end of 1877, Edison patented his phonograph in which registration of sound was made by a needle that moved in spirals laterally on a wax cylinder, and which, under the action of a device actuated by the sound waves, reproduced the oscillations vertically, that is from top to bottom and vice versa. The films produced by Edison in the Cinetoscope of 1892 were even then accompanied by synchronized discs. In Paris, the first representation of synchronized discs of this kind was organized by Gaumont in 1902, and in Berlin in 1903 by Oskar Messter. While Edison, as we have said, made the registration needle of his phonograph oscillate vertically, in 1878, Berliner proposed making the needle oscillate horizontally. He called his apparatus a gramophone, and the name has spread throughout the entire world.

The step from the mechanical gramophone to the electrical machine was rendered possible by the invention of the amplifying valve or tube, which was due to the work of Lieben. How much superior the electric-acoustic apparatus is to the mechanical reproducer Dr Joachim has shown by using « control discs » on which were registered frequencies of 400, 200 and 100 cycles, as well as those of 800, 1600, 3800 and 6400 on both machines.

The frequencies of 100 and 6400 cycles were audible on the electric apparatus, but not so with the mechanical gramophone. The change from sound engraving to « sound writing », registered photographically on the film, which was so important an advance for modern sound technique, is based essentially on the research work of the Tri-Ergon triumvirate. The ensuing patent rights as well as those of Lieben gave rise to a lengthy and exasperating series of law cases and financial struggles. (See in this connection the decision of the American supreme court in *Paramount Publix Corp. v. Altoona, Publix Theaters and Altoona Publix Theaters v. American Tri-Ergon Corp.* published in Number 6 of the *Journal of the SMPE*).

After having lost ground in the field of the phonofilm, the gramophone has come of late to be much used as a registration means, demonstrating itself indeed superior to the photo-electric method for intensity and breadth and also for the small amount of background noises. The American Columbia Co. used this system with success for its picture *One Night of Love*, featuring Grace Moore's singing. For gramophone registration (which is registered again photo-electrically on the film) the Edison method of

vertical oscillations of the needle was used. (« Film-technik », N° 9).

A new system of sound registration is based on the vertical oscillation method. It was proposed by the American James A. Miller and has since been developed in the Philips laboratories. With this system the more or less deep engraving does not provide the field for the mechanical scanning, but the angle (of varying width) produced on the surface of a film by the penetration (of varying depth) of a wedge-shaped needle (a white line symmetrically indented on a dark ground) is used for the normal optical scanning with photo-electric cell. If the sides of the needle form a wide angle, then the width of the incision is several times greater than the depth. In other words, a very small vertical movement of the needle suffices to give great breadth of curve horizontally. (« Kino-technik », N° 9).

#### REGULATING SOUND IN HALLS

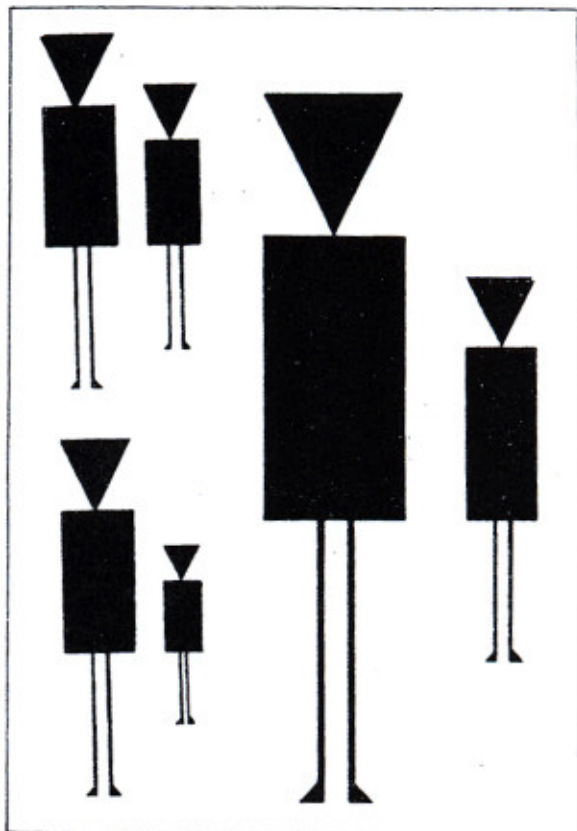
Excellent sound registration is no good, however, if the film is badly reproduced in the cinema halls. Louis Lumière during his recent visit to Rome, told us that he considered the most important task of the cinema technique of tomorrow was perhaps that of making the reproduction of sound independent of the projection operator. This object can only be attained if the sound tracks in the films supplied by the producing firms have such a homogeneous density that there will be no need for the sound operator to regulate the intensity of the sound. Today the fact is that films are delivered to the theatres requiring wide and very often sudden changes in the fader, and not infrequently the variations required exceed the limits of the fader to handle them properly. Sometimes the loud speakers suddenly start baring in a way to shatter the drums of the public's ears, even when the fader is doing its best. Also, the operator is usually very much engaged in his cabin from which point it is almost impossible to judge of the intensity of sound. The way to resolve the difficulty, is to be found, according to F. H. Richardson in (« Need for uniform density in variable density sound tracks » « N° 6 Journal of the SMPE ») not by improving the control of the sound in the halls, but in a more accurate preparation of the sound copies of the films in the factories and printing works. It is only in this way that films can be presented to the public with that intensity of sound track reproduction desired by the film director.

#### PERSPECTIVE

Harry Walden speaks of the effect of the depth of perspective in the film image (in « American Cinematographer » N° 6) from the physical and psy-

chological points of view. For example, multiplying the distance of the camera from the object to be filmed, and in the same proportion, the focal length of the lens, the picture remains more or less the same as regards the size of the objects, but the perspective changes. The perspective of an image depends solely on the distance from the camera, and not on the focal length of the lens.

In the illustration which we have taken from



Walden's article, the two groups of figures which stand above the other on the left show schematically two human figures « objectively » equidistant. Let us suppose the picture was made with a lens with a considerable focal length, and that it shows (top figure) the man who stands in front a quarter of a length taller than the man behind, while a shorter focal length (making the pictures this time with proportionately diminishing distances) would show the man who is in front double the height of the man behind (bottom figure). In view of the greater difference in height, the distance between the two figures seems greater in the second case, and this is why short focal lengths are used in cinema work when it is desired to give the effect of depth, or when we have a very violent movement in the direction of

the camera, as for example as endless caravan or an express train approaching at high speed.

Besides this physical phenomenon based on the fact that the difference of the angles through which the two figures impress themselves on the retina of the eye or on the film increase with the shortening of the distance between lens and object, Walden has also noted a psychological effect of a certain importance. The group of figures on the left at the bottom is of a different size to the group on the right, but all the proportions are identical. Notwithstanding this, the distance between the figures of the group on the right appears less, according to Walden. (The two drawings correspond to the images that would result from an enlargement of a photograph or by taking from the same distance from the object two photographs with different focal length lenses) Walden explains this effect as follows: the larger group seems nearer, and therefore in it the difference in size of the figures is perspective-diminished (in view of the fact that this difference in size from close at hand is always greater).

It remains to be proved if this influence of the absolute size of the image occurs when the figures are not shown on a white ground but rather, as is nearly always the case in photographs, against a background which helps to lend a certain precision or sharpness from which distance the figures are taken and are therefore to be « considered ».

If this is so, it might happen that with a large projection (or a projection seen very close up) in respect of a picture made with a long focal length lens, the effect of depth will diminish, even if in the proportion between the figures, that is in the perspective situation, nothing has been objectively changed. — R. A.

## LEGISLATION

A recent arbitration decision made by M. Grunnebaum-Ballin, French Councillor of State has established some important principles in one of the most interesting and delicate questions affecting the film industry.

The point in dispute turned round the limits to the right of cession of a cinema artist.

It must be admitted that in the interests of the worker who has to face a labour contract that is not

only nominal but allows the employer to free himself of his obligations, the Artists' Union has accepted the principle of the cession of the contractual obligations to another producer with the subordination of this faculty to certain conditions such as the right of the artist to renounce the benefits of the contract if the new employer did not satisfy him in some particular. This faculty belonged to the artist who had been traded away and not to the parties to the new contract, the concessionaire and the new employer.

This power of cession of a contract became a regular clause which did without the consent of the artist, who appeared in the printed document or contract, which, owing to the juridical principle governing contracts, became obligatory for the lessee.

The thesis which was examined by the French arbitration court revolved round these points.

The judgment stated: « Since an intellectual worker, and especially an artist (actor) cannot be considered as being an object of merchandise, a film-producing firm cannot, by means of a contract with another firm of producers, substitute the latter for itself as regards the work and labour conditions of an artist it has engaged unless a bilateral accord, written or expressed has been accepted by the artist himself or herself, and this even if the general conditions for the hiring of actors contain the following clause: "The company shall have the right to cede the employment of any artist to any other firm or individual company or corporation, even without the artist's consent..." ».

« A clause of this kind, which is contrary to the essential rights of human personality, must be considered as contrasting with the principles of public order and is therefore null and void ».

The cession in question may be considered, from the juridical point of view under various aspects, especially in connection with the early accords which were entered into between producers-hirers and artists.

First of all, there is a distinction to be made between the artist who plays a part of the first importance in the piece, who, in other words is a collaborator, and the artist who cannot claim this exalted function, but is nothing more than a minor character, or even a super, whose work adds nothing to the special character and individuality of the theatrical or cinema piece.

In the first group we have the artists properly so called round whom the picture is built, for whom it was conceived and written, and to whose characteristics and personalities the scenario was in all probability subordinated. These are actor-authors and co-authors in the fullest sense of the word, and they have the right to assert moral rights in the