

MOTION PICTURE CAMERAS

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The rapid growth of the motion picture industry has made it a difficult problem for manufacturers of motion picture apparatus to keep pace with the growing demands of the industry. The manufacturing problems have paralleled in many respects those of the automobile industry, but have by no means kept pace with them. It was only with the standardization of parts, and with the adoption of a standard method of measurements and specifications, that the automobile industry was able to reach the development that it has today. The American Society of Automobile Engineers was probably the largest factor in bringing about the standards in use in the automobile industry. It has, every year since its formation, helped in the elimination of freak designs and in rendering obsolete the unnecessary duplication of parts in odd sizes. The old idea of a manufacturer who would compel a customer to replace every part of a car from parts manufactured in that particular factory by making as many of the parts as possible of a different size from that of any other manufacturer is one which has never met with the approval of the consumer. If a car owner wished to use a different spark plug or piston ring than that supplied by the manufacturer of his car it didn't improve his state of mind to find that no other make of spark plug or piston ring would fit. No manufacturer ever benefited by this selfish attitude, for as soon as he had turned out enough of his odd sizes to make a market every other accessories maker turned to and made an odd size to fit it. This duplication of parts entailed more machinery, higher costs and, consequently, bigger prices for the consumer to pay.

Although it would seem at first inspection that the fact that the size of the film is practically an international standard and would, therefore, militate against an undue multiplication of parts in the film business, still we find on closer inspection that affairs are as bad or worse than they were at one time in the manufacture of gasoline vehicles. It is to be hoped that the Society of Motion Picture Engineers may do the same service for the motion picture industry that the American Society of Automobile Engineers is doing for the automobile industry.

One of the first things to put in order out of the chaos of film-dom is a comprehensive and comprehensible list of specifications by which a camera may be described. No manufacturer of automobiles would think of issuing a catalogue describing his car without including a full and detailed list of specifications. Yet none of the camera manufacturers have seemed to think this necessary in the catalogues describing their cameras. They often elaborate to great extent on some one feature or another, but slide gracefully out

of describing some of the essentials which they have left out of the catalogue, and generally left out of the camera also.

The camera is the keystone in the arch of picturedom. Without the camera the whole structure must fall to the ground. It is therefore of the utmost importance that the first attention of this august body be directed to the vital centre upon which every other section of the industry depends.

The average camera of the industry today is a marvel of compromise. It is expected to take the film of any maker, of any thickness and any degree of pliability, with perforations of any shape and almost any number per foot and produce a rock-steady picture. I say it is a marvel for it generally accepts all these handicaps and turns out pictures which look surprisingly good upon the screen.

It must accept all of the imperfections which a lack of standards subjects it to and turn out a picture degraded with an average of these imperfections.

Its sprocket teeth cannot fit the perforations for they must be made small enough to enter the smallest perforation that it may encounter. It must rely for registrations upon pressure plates with spring tension-pilot pins or guides being of little use unless a standard size of film and perforation be arbitrarily adopted for that particular camera. Thanks to the individual efforts of one or two of the members of this society, much excellent work in this line has been accomplished, but unless standards are universally adopted and used the standards of one clique are sure to clash somewhere with those of another clique and the war goes merrily on to the detriment of the industry as a whole.

It is high time that the essential parts and features of cameras have a universally recognized standard to which they should conform.

The first and most important standard to be determined is the frame line in its relation to the perforations. No two cameras can be used in the same production at the present time without having their frame lines adjusted to one another. The claws or fingers which engage the film for drawing down the succeeding frames are placed, in most cameras, at some distance below the frame opening and although two cameras with claws at different distances between their claw movement be adjusted according to one standard for their frame line, the use of a different standard of perforation, although the new standard be used in both cameras, will cause the frame lines to differ.

The studios of today who are turning out the best grade of work have adopted a standard for their plant and, at great expense, have made all of their cameras, perforators, printers, etc., conform to an arbitrary measure for their own protection. The companies who have recognized this great economic factor in production are unhappily still in the minority. It is not to be wondered at that in the absence of recognized standards that many makers have either never given the subject proper attention or felt equal to backing the various opinions of the others and trying to draw them into line.

An instance will illustrate the point which I am trying to bring out. One of the largest distributing combinations in the country shortly after their organization decided to run a trailer with their trade mark on all of their reels. They made an appropriation of stupendous proportions to bring this trade mark before the public by a national advertising campaign in magazines, newspapers and billboard space. I was assigned the task of making the negative for the trailer, pieces of which were sent to each company releasing through this organization. I made the negative with the frame line conforming to the standard of the principal member. It took nearly four months to bring this trailer into use among the different releasing companies, during which time it was necessary to remake an exact duplicate for each and every releasing company with a different frame line, and one company was even so sadly mixed that it required a frame line change to correspond to each camera that it owned, they were not able to put two camera men on the same job as their frame lines did not correspond.

A large number of camera men at the present time own their own outfits. This measure was adopted by them in the beginning as a measure of self-protection against the junk-boxes with which the manufacturers expected them to work.

As soon as the manufacturers found that the camera men would buy their own cameras many of them ceased providing cameras and depended altogether upon the heterogeneous collection of outfits that their camera men provided.

This situation is absurd—can you imagine a serious manufacturer of automobiles or machinery who would expect a workman to come into his factory with an arbitrary set of limit gauges and expect to assemble a product made by this workman with the product of other workmen when their measurement standards had never been compared?

That, gentlemen, is exactly the situation in a number of studios today where they are spending into the millions of dollars each year for the production of feature pictures de luxe.

You are all well aware that I might go on with an almost interminable list of evils that are crying out for extermination at your hands but I would be taking up time which would be better spent by you in devising remedies that are so sorely needed.

Fellow members, upon your decisions at this and coming meetings rest the savings of untold amounts of unnecessary waste in time, money and material.