

# Kattelle Oral History, Tape 5

August 19, 2003

Andrea McCarty: Alan, I was asking you how you knew about Kodak's report on the Movette projector.

Alan Kattelle: I suspect that it was one of many, many pieces of information that was given to me by a wonderful chap named David Gibson, who was the director of the Kodak Patent Department Museum. And I wrote to him, pestered the poor man many times with, "What about this Movette? Or, what about this camera or that camera?" And if he had any information on it, he'd send it to me. I have a pretty good idea that that's where that report came from.

AM: Do you think that there were other reports on 28mm or—?

AK: Oh, I'm sure there were. Whether they can be accessed anymore, I don't know. I haven't tried.

AM: Do you think Kodak had any sort of interest in seeing Movette succeed with the 17.5mm format?

AK: I doubt it. I would think that their sales people looked at that and said, "that's such a niche market. Why do we want to be

bothered providing a specialty film like that?" It wouldn't be enough to justify keeping it in production.

AM: It was a niche market. Was it a niche market before the advent of 16mm?

AK: I shouldn't say this. I don't suppose that Kodak wanted to refuse anybody to supply them with film, but I think if you were asking me if they would encourage the continuation of that particular system, I would say they wouldn't.

AM: So they were happy to supply the film because it was easy for them to make, they could split the 35mm film right down the middle, and they charged for the processing, so they make money that way. It was probably no big expense to them, and a little bit of profit from processing and providing the film.

AK: They must have known that their system was going to eclipse almost any other system, in fact did eclipse them, with one exception. You know what that exception is? 9.5mm.

AM: Were they that sure about reversal film because people would only need to process one [element]?

AK: I'm sure they may have recognized what a boon that would be and how popular. I would think they did, don't you?

AM: Yeah, I do. I do. Back to Marion Norris Gleason. Have you ever come across a copy of these scenarios [that she wrote], or any other kind?

AK: Not these particular ones. I think I might have another book of scenarios. But to tell you the truth, I haven't looked for it.

AM: I would think that they may have printed off scenarios in the amateur film magazines for people to use. Don't you think?

AK: Oh, that's possible. That's possible, yeah.

AM: Anything else you can think of about 17.5mm, or 11mm, or the Edison Home Kinetoscope or anything else we've talked about today?

AK: Andrea, no, I'm talked out.

[Tape turned off]

AK: But, the more I think about it, the more I think that the emphasis was on encouraging amateurs to do plays. Of course Hiram Percy Maxim, who was the founder of the Amateur Cinema League, he made plenty of family movies as you know.

AM: Yeah he certainly did. It seems like recording your family is a given. I wonder if they were promoting the scenarios as an alternative, or something else, so that it would be an even richer hobby.

AK: Right. Yeah I think that, again, it would be sales driven. I'm sure the sales manager would say let's give them the tools to make their own *Gone With the Wind* and use a lot more film.

AM: That's true. And I think that people were watching Hollywood movies, and they were able to rent or buy them for their at-home projectors, so I'm sure there was certainly an interest. Alright, you want to call it a day?

AK: Yes, let's.

[Tape turned off.]

AM: Okay Alan, I had one more question about 17.5mm film. We discussed how the camera used 17.5mm nitrate film, and that Kodak would send back a positive [safety] print to the consumer. Is that true?

AK: That's true as far as I know only of the Movette. I don't know of any other manufacturer that used the same system.

AM: Okay, then my question is, could we assume that Kodak was splitting 35mm diacetate to make this 17.5mm print for the Movette?

AK: I think that's a good assumption.

AM: So were they making 35mm diacetate for any other purposes at that point?

AK: Let's see what's the date on the film—1917. I'd have to look back and see when they abandoned diacetate for professional use. I don't recall a date off-hand, but 17.5mm was popular for home use. And another example of another machine that used it was the Ikonograph. And the one film I have for that particular projector is very curious; inside the can of film it says "Caution. The first six feet is nitrate," making it clear that the rest is diacetate.

AM: What's the Ikonograph?

AK: The Ikonograph is a 17.5mm home projector by—I think it was by E. J. Rector, and there's an example over there on the shelf.

AM: So, what can you tell me about the Ikonograph?

AK: I would say that it is one of the best, most well-made 17.5mm projectors made for home use. Most of them were much less sophisticated in the way that they were built.

AM: What makes this one special then? What is so sophisticated about this one?

AK: It has a nice solid lamp house, and a good, workable, wooden base. They were obviously intending to do good business, and they made their own film cans. And, as I was saying, this legend is inside.

AM: Interesting. And that's not your writing. That was there.

AK: Yes, that was there.

AM: I wonder who wrote that? It seems that if the company issued that, they would have typed it, would they have not?

AK: I think the owner did this. He made a leader in other words. However there's certainly an image.

AM: Can you hold that still for a minute?

AK: What do you want to see? The film?

AM: Yeah, I do. Okay hold it still for a second. I'm going to ask you to hold it up away from the machine.

AK: Yes. The first six feet is from some other film, because after six feet it starts with titles, *The Tramp's Revenge*, which is the title of the film as shown on the can.

AM: I noticed that the film for the Ikonograph has different sprockets than the film for the Movette.

AK: The Movette had side perforations. This one is center perforations on the frame line, yes.

AM: So was Kodak also producing the film used for the Ikonograph?  
You said that Kodak was collaborating with Movette in their  
17.5mm venture.

AK: Right. I don't know if there's any identification on this. We can  
certainly look. There's no edge printing.

AM: So it could have been anybody.

AK: Yes, exactly. But the fact that it's safety, I would tend to think  
that it's Kodak film.

AM: Was there an Ikonograph camera as well?

AK: No, there was not. There were different models of the projector.

AM: So this projector was solely to project reduction prints put out  
by the Ikonograph company?

AK: I don't know who made [the prints] for them.

AM: Who was the person behind the Ikonograph?

AK: Yes, I'm saying it was E. J. Rector, and we've already talked  
about him in connection—

AM: Was it the Vitak that we talked about him in connection with?

AK: Yes, it was. Wasn't it?

AM: I think so.

[Tape turned off]

AK: I would call [the Ikonograph] one of the better amateur motion  
picture projectors for that era. For one thing, it has a nicely built  
lamp house with a chimney, and they also provided a good-size  
lamp, so the illumination should have been pretty good. The

film transport mechanism appears to be well built. We have discovered a mystery in that there is no shutter, and apparently no provision for one. There was a fire shutter however. I don't know if I can show that to you, but a fire shutter is a device that blocks the light from the film if the cranking speed isn't fast enough. That's to prevent the film from burning. [Cranking projector]

AM: Could that have served the purpose of the other kind of shutter?

AK: No, because when the camera is cranked at the right speed, the fire shutter is supposed to go out and stay out. As to why a camera was not produced, I can only assume that Rector saw the handwriting on the wall. In fact Kodak— Eastman may have even told him that they were working on a direct reversal film.

AM: In your book, it says that Rector approached George Eastman with the idea for the Ikonograph fairly early on. Was it 1904? [Note: Rector is said to have demonstrated the Ikonograph system to Eastman in 1902. See Kattelle's *Home Movies*, p. 55.]

AK: That early? I don't know.

AM: Do you think that it just took Rector a long time to get his idea off the ground because he just didn't have enough financing or something?

AK: Well, no. He must have had a fairly good organization because he produced the commercial Veriscope camera, and perhaps he was concentrating on his professional work. I can't tell you.

AM: Was it through his professional connections that he was able to get the films to be reduction printed, do you assume?

AK: I don't think that's the problem. I think there were so many amateur projectors that were advertised with film, that I think there were more places than Eastman Kodak to get that work done. I think there must have been independent labs.

AM: Was the Ikonograph more successful than the Mockette?

AK: Again, this would be just a pure guess on my part, but it was certainly a less complicated mechanism, and there were fewer steps for the user to go through. That's all I can say about that.

AM: Your book notes that there was a camera listed in the Ikonograph catalog, but it looks like there was never one produced.

AK: Correct. Again, as I say, he may have decided that the coming thing was going to be the safety film. I can't be sure.

AM: Although the 17.5mm prints were printed on diacetate safety, right?

AK: They appear to be, yes.

AM: Were there any other 17.5mm formats besides the Mockette and the Ikonograph?

AK: Yes. I'd have to look, but I'm thinking in particular of an ad in a Sears catalog for 1905 that advertised a projector and a whole list of films by a company that has never been heard from since, so there must have been a ready source for 17.5mm reduction prints from commercial films.

AM: And this was a separate projector that would project these prints, or were they made for the Ikonograph?

AK: No, this was a separate projector. However it's difficult to tell in just looking at the Sears ad exactly who made the projector.

AM: Or where the sprockets were?

AK: Exactly.

AM: I have one more related question about the 17.5mm diacetate prints. I was wondering whether, because there were 35mm diacetate prints floating around at this point, whether 17.5mm diacetate was an expedient format because you could just split the 35mm down the middle?

AK: Yes, that's correct. But then it had to be perforated, which is no big problem. It's easy to build a perforating machine.

AM: Can you tell me more about the 35mm diacetate? Who was producing it? Who was showing it? Do you know anything about that?

AK: As I said in the book, Eastman, as early as 1908 I believe, was experimenting and did make some [diacetate] for professional use. But diacetate has much less tear resistance than nitrate, and both the distributors and exhibitors were very unhappy with it, so they abandoned it very quickly. And Pathé was also working on diacetate but he, as we know, made it for the amateur market.

AM: And that was 28mm?

AK: 28mm, right.

AM: I remember when I was working at Northeast Historic Film, there was a film called *The Fall of Jerusalem* that came from

your collection? And that was a 35mm diacetate print that was released by what looked to be the Wholesome Film Company. It looks like it was a religious film that perhaps was shown for church groups, outside of traditional movie theaters. Do you think that was a common occurrence?

AK: I'm sorry, that they were made for churches or--?

AM: Well, I was thinking about that film, and I was thinking that before 16mm, church groups and amateurs who could afford 35mm projectors would probably be seeking diacetate prints.

AK: Absolutely, yes.

AM: And I was wondering if you knew anything about who was releasing those prints and what the market was, or... Do you have anything?

AK: There was a periodical, a magazine, that was published primarily for the educational, religious and fraternal organizations. They made quite a thing of it, that you could buy safety prints. I'm not sure if that answers your question. [Note: Alan is referring to a journal called *Moving Picture Age*.]

AM: Yes, it does. Have you ever come across one of these periodicals?

AK: I have several of those issues.

AM: Could I look at them later?

AK: Absolutely.

AM: I'm curious. It seems interesting to me because the 16mm format became so entrenched with the church groups and the

schools, but these 35mm diacetate prints keep turning up. The first time I saw one, I assumed it was nitrate. Then on closer inspection, I realized that it wasn't. And that leads me to think that there are probably a fair few of these floating around.

AK: I have a question for you. Is there a good way to distinguish between diacetate and nitrate other than setting fire to it?

[Chuckles]

AM: There are hash marks. Often, there are hash marks in between the sprockets. And, nitrate hash marks are [perpendicular to the edge] of the film. I can draw them for you later. There are these hash marks when you're inspecting the film and looking closer near the sprockets. They're not always there, but they often are.

AK: Okay. Well, the reason I ask is that the dealer who told me about the Pathé Frères camera for sale, he claims that the film is nitrate and I said, "Why?" And he said, "Well, it burns just like it." Well I tried it, and I tried a piece of what I know is [diacetate], and it does burn. It doesn't flash, but it burns and it leaves a residue.

AM: Do you mean the diacetate or the nitrate?

AK: The diacetate.

AM: It's true, because I burned a frame of the leader from *The Fall of Jerusalem*, and it did catch on fire, but not as quickly as nitrate does.

AK: But I burnt a piece of known nitrate and known diacetate, and the big difference that I discovered was that the nitrate tends to burn much faster, but also it leaves hardly any residue where as the diacetate leaves a black ash.

AM: Now, he was looking at 28mm, your dealer friend was?

AK: Yes.

AM: I don't think the hash marks would appear on 28mm.

AK: Also this is unexposed, so you would—

AM: So the hash marks may not work there. I'm not even sure if they appear on non-Kodak nitrate.

Okay, we're going to pause.

[Tape paused]

AM: Okay, Alan do you want to talk about 9.5mm?

AK: Of course. 9.5mm was the one amateur gauge that survived the introduction of 16mm direct reversal.

AM: Why?

AK: Every other peculiar gauge that came along succumbed when Kodak came out. except for Pathé's 9.5mm.

AM: Why was that?

AK: Well, I think, of course it started in Europe, and then the image size is not that much smaller than 16mm. It had a wonderful organization in back of it, Pathé Frères, and they made a good

product. The film design was such that they could make very small camera, exemplified by this little baby. The film was provided in handy cassettes, once you got the camera open. [Laughs] [Note: the camera that Alan is referring to is the Pathé Baby.]

AM: So is that a cartridge-loading camera?

AK: Yes, absolutely. There is the 9.5mm cartridge.

AM: You can see the center perforation. Can you show me the imprints of the Pathé [logo] again? There we go. Can you tell me the answers to some basic questions, like when was 9.5mm introduced?

AK: 1922, I believe. Of course, they introduced a camera and a projector. The projector was simple to use. The film came in little canisters which I probably won't be able to get out.

AM: That's okay; you don't need to take it out. We can see that the film came in little canisters. I have many questions about this. I guess I wanted to ask you what was so exceptional about the Pathé Frères organization?

AK: What was exceptional about them? Well, they'd been in business, in the film business, as long as Eastman Kodak. They were quite parallel organizations, and they were pioneers in many things. They were pioneers in coloring film. Of course they did it the hard way, stenciling each frame, but still. And they made a good product.

AM: Would you say that Pathé Frères was as established in France and Europe as [Eastman] Kodak was established in the U.S.?

AK: Very definitely so. I remember one famous remark when somebody told George Eastman how much film Pathé was running, he said, "Well he didn't buy it all from me," meaning that they had produced a lot of their own. They did buy some film from him, but...

AM: Did 9.5mm ever really make it to the U.S. before 16mm took hold?

AK: I don't believe so. Again by the relative infrequency of 9.5 gauge cameras and projectors in this country. However, it was actively marketed in this country.

AM: Was it? Even after the introduction of 16mm?

AK: Yes, I believe so. They came out with a motor driven camera, again quite compact and well-made. Here's the motor attachment.

AM: I have a couple more questions. Was Pathé's business in Europe hurt by the introduction of 16mm?

AK: Apparently not, because as you know there are 9.5mm clubs in Europe still in existence today.

AM: And one small 9.5mm club here in [the U.S.]. Then my next question is— 9.5mm, was it ever a reversal stock? Or did you always need to have a positive printed from the negative?

AK: That is a good question. I'm sorry, I don't know. I'd have to look that up.

AM: Okay. We can look that up. That's not a problem. What about the 9.5mm projector? Can we look a little bit at the projector you have out?

AK: The full-size projector was approximately twice the height of this. It had several unusual characteristics, some good and some bad. The film was fed from this metal spool, and the receiving chamber had a glass front on it. In theory, at least, you didn't have to fool with it down there, you just reversed and it pulled it. When you finished [projecting], you reversed, cranked and cranked it back up into this metal spool up on top. One of the unfortunate features of the—oh, it had another positive feature I forgot about. You know, to show a title in a film, you have to print a title in several frames depending on how many words there are. That's ten or twelve frames just for two lines of title. Pathé had a clever device to get around that. You may have heard of it. He notched it. He made a notch in the film, and the projector mechanism stopped on that frame. Not long enough to burn, but long enough to give you the chance to read it and then it [moved on]. That was an interesting thing.

The poor feature of the design was the combined flywheel shutter which, unfortunately, they made out of die-cast metal which, over the years, tends to warp and swell and makes the projector totally inoperative until you pull that flywheel out and have it machined down or replaced. [Note: Alan is referring to the Pathé Baby projector.]

AM: Do you think that there are still 9.5mm cameras and projectors being produced?

AK: I don't know.

AM: I'm curious about projectors that were made more recently. Because it's been a viable format and still is to some extent.

AK: They must make modern cameras for it too.

AM: They must make motor drives. Were the 9.5mm cameras variable speed?

AK: Again, I'd have to look at a particular one. Of course the hand-cranked one was certainly variable speed.

AM: Do you have anything else to add about 9.5mm? We probably should have done 28mm first because it came first, but we'll move on to that now.

[Tape turned off.]

AM: So Alan, what do you have there?

AK: This is a marvelous import from France. It's the 28mm Pathé Frères camera which utilized 28mm safety film. The film itself was unusual in that it had three perforations per frame on one side, and one perforation per frame on the other side. Nobody is exactly sure why Pathé did that. Somebody said, "Well that's just so you couldn't mistakenly put 35mm negative." Well you couldn't do that anyway. It would be too wide for the sprocket. It would certainly mean that the camera user couldn't use anybody film but Pathé film, because most people put the same

number of perforations on each side. I mean, at least that was the standard for 35mm film.

AM: Do you know where Pathé was getting their 28mm film? Were they producing it themselves, or--?

AK: I would assume they were. But, they also were very good customers of Eastman Kodak. However, I somehow don't feel that Kodak would have set up special machinery for 28mm film. I suspect it was all domestic and French manufacturing.

AM: When did the 28mm format emerge? Roughly, you don't have to know the exact date.

AK: 1912.

AM: 1912. And you said that at that point, Kodak had already begun work on 16mm.

AK: Yes, they had.

AM: So chances are that if Kodak had already started to work on the 16mm process, then they definitely would not have produced the 28mm for Pathé.

AK: I'm absolutely sure of it. Almost absolutely sure. Yes, Eastman Kodak paused work on 16mm when the war came along and didn't resume until after the armistice in 1918 or 1919. Again, Pathé have a market in the United States. If so, it was limited. However, an American entrepreneur, Willard Cook, saw the virtue of the 28mm and he formed Pathéscope of America Limited. And he imported both the camera and the projector.

AM: Which was called the Pathéscope?

AK: Pathéscope, right.

AM: Was the camera also called the Pathéscope or only the projector was called the Pathéscope?

AK: The scope meant to project.

AM: So the camera was called just the Pathé or the Pathé [Frères]?

AK: Yes. Well, Cook very soon embarked on improving the Pathé projector, and he marketed that, of which we have an example.

AM: He marketed the Pathé projector?

AK: Yes.

[Tape paused]

AM: But Cook did in fact make a camera.

AK: Yes, after he began importing the projector. As I say, he wasn't entirely happy with the design, so he improved it, the design of the projector.

AM: How did he improve it?

AK: For one thing, there was no need of the generator on the projector. Pathé Frères had a generator because in France, there wasn't a wide distribution of electric power, so that was eliminated.

AM: Okay, you said that Willard did in fact make a camera. And was that also marketed as a Pathé camera, or was that called something else?

AK: I think it was called a New Premier Camera. But it must have had a very limited run. I've never seen one.

AM: Do you have an example of the Premier Pathéscope, or not?

AK: Yes. On the projector, yes I have.

AM: That's not this one, is it? That's the Keystone.

AK: That's the Keystone.

AM: Where is the New Premier Pathéscope?

AK: May I look?

AM: Okay, what do we have here?

AK: This is the New Premier—I'm sorry, there's no "New", it's just a Premier Pathéscope.

AM: Okay. So this is the projector that Willard Cook came out with.

AK: That's correct.

AM: And that "W" down here, is that for him?

AK: No, that's a Westinghouse [logo]. There is an interesting feature with this projector. That shaft you see out there is where the shutter goes, and as you can see it's turning. One of the unusual features of this [projector] was that it had an external shutter, and this is the shutter shaft out here. The shutter looked—it was a three-bladed affair like so, and it was mounted on the shaft. And as the projector turned, it did the necessary interruption of the projection.

AM: So, Cook came out with this improved projector. Was this only in the U. S. that the the Premier Pathéscope was marketed?

AK: Yes, because for one thing, he changed the perforations. No, I'm sorry. This is still three and two. Three and one, I should say. But, you see he—Pathé's projector required a generator for the light, whereas Cook's projector used domestic electricity.

So there was no need for that. He wouldn't have—what I'm saying is, there wouldn't have been a market in France or Europe for this projector.

AM: Because there was no electricity.

AK: Electric distribution was not as common as it was in the United States.

AM: So let's talk a minute about what was shown on the 28mm projectors. As far as I know, there were many production prints in 28mm. Is that correct?

AK: Yes.

AM: And some home movies.

AK: Yes, since there was a camera they must exist, but again, for what it's worth, I've never seen an example of the camera, the domestic camera.

AM: The domestic camera. Interesting. So all you have here is the original Pathé Frères camera. You don't have an example of Cook's camera.

AK: That's right.

AM: And you wouldn't be able to necessarily tell though, whether a film was shot with the new camera or the old camera.

AK: That's true.

AM: Because we saw examples of 28mm home movies a couple of weeks ago at Northeast Historic Film, and in other places.

AK: I'm sorry. What did it show? Was it a typical home movie?

AM: Do you remember Dwight Swanson's presentation at the beginning about the home movies from the family? Let me get their names. It was the Forbes' 28mm home movies. Do you remember that?

AK: Yeah, I'm trying to think now. Forbes, did you say?

AM: Yes. And we've also seen an example of a 28mm amateur theatrical called *Snow White*, which was shot in Blue Hill, Maine. That was a home movie as well. And we have found other examples.

AK: So now, do we know what camera that was? It's impossible to tell whether it was made on a Pathé Frères or on a Cook's camera, right?

AM: I think it is, because the three-and-one perforations would have been the same. With the 28mm, how did it do in Europe, do you know? Was it popular in Europe, the 28mm?

AK: I would assume so. Again dear, I have no knowledge of that. But as you see from those ads in the magazine we were looking at, there was a definite market for educational films in 28mm in this country.

AM: And newsreels as well, right?

AK: Right.

[End of Tape 5, Side 1]

AK: Keystone Manufacturing Company projector for 28mm.

AM: Do you want to face the camera a little bit with that? Okay, the first thing that I notice is that the perforations are different on the film.

AK: I have put a piece of what I would say must be Willard Cook's 28mm, or safety—is that safety standard?

AM: What's in there right now is definitely 28mm. And 28mm was always safety. But that does not have the three-and-one perms.

AK: Right. But Keystone designed this before the safety standard was adapted.

AM: Before which safety standard was adapted?

AK: With the same number of perforations on each side.

AM: So Keystone designed this projector--?

AK: Prior to 1918, which was—1917 or 1918, which was when this was adapted as safety standard.

AM: So in 1917, 28mm with the same number of perms on each side was adapted as the safety standard?

AK: Right.

AM: Who adopted that? Because with the Premier Pathéscope we just looked at, they still had the three-and-one perms on that one.

AK: Right. Well, Alexander Victor was very concerned with getting safety film more available to the amateur, to fraternal organizations, and so on. And in 1917 or 1918 he persuaded SMPE, the Society of Motion Picture Engineers to adopt this as so-called safety standard.

AM: 28mm?

AK: 28mm with the same number of perforations on each side.

AM: What did Willard Cook think about that? [Chuckles] Do you think he was put out because he was still doing the three-and-one on his Pathéscope?

AK: I'd have to think about that, how that would have affected him. I can't answer that off the top of my head.

AM: That's okay. So Victor was making a 28mm machine at that point?

AK: Yes.

AM: So was the Keystone projector a good projector, and were they long in the 28mm market?

AK: Keystone was—they started out as a toy manufacturer. They, at least in this period in their history, they were aiming at the low end of the market. This is basically a very inexpensively made projector. And it's amusing to me that they made this projector for this odd gauge, which was 28mm, three and one.

AM: Okay, so even though we have the standard 28mm film in there, this projector is actually a three-and-one projector.

AK: That's right.

AM: Can you move the film up a little bit and I'm going to focus in on the projector so everybody can see it is actually three and one. Good. Okay. Would you have thought that they would have waited until a standard was adopted and then made the 28mm projector for that?

AK: [Chuckles] Yeah.

[End of Tape 5]