Simplex Projector

The Simplex projector had been around almost since the beginning of projected films. The story begins with the first presentation of projected films at Koster and Bial's Music Hall in New York City on April 23, 1896. The projection machine that evening was operated by a man named Edwin S. Porter, usually known to film buffs as the man who directed *The Great Train Robbery* for Edison in 1903.

A Pennsylvanian, Porter worked various odd jobs as a youth, but leaned toward electrical devices in his early teens. In 1883, he joined the U.S. Navy, where he distinguished himself by improving electric devices and communication systems. After running the show at Koster and Bial's in 1896, he traveled the world, barnstorming films at fairs and circuses.

In 1898, he found work at the Eden Musée, which was an amusement hall / wax museum in New York City. A number of Edison productions were using the place as production headquarters, so Porter began assisting in the productions, as well as being the impresario of the film programs at the Musée.

The next decade was a heady one for Porter. Having started in projection and presentation, he had a keenly developed sense of what audiences of the time would accept, and so he rose to become the most creative of the filmmakers at Edison, culminating in his 12-minute epic *The Great Train Robbery* (1903).

He also had time to start a projector company. Starting in 1908, Porter and two projectionists / engineers from the Eden Musée, Francis B. Cannock and Mike Berkowitz, began designing what was to become the Simplex in a back room of O'Keefe's Saloon at 42nd and Vanderbilt in NYC.

The Simplex projector introduced in 1909 - 1910 was an immediate hit, selling thousands upon thousands each year all over the world. Part of its popularity revolves around its practical features, which were constantly added to and refined all through the silent period. Features which were not available (if ever) on other projectors, such as an intermittent unit which could be easily changed out if needed, changeable aperture plates, a framing device (allowing the picture to be framed properly if threaded incorrectly), variable speed controls, just to name a few.

After International Projector Corporation (IPC) was formed in 1925, Simplex became the premium brand, easily making the transition to the early sound era. When the Super Simplex was introduced in 1930, earlier machines were known as "Standard's." The improvements made to the Super Simplex were legion:
Rear shutter. By enclosing the whirling shutter and moving it between the light source and the gate, the projector became a safer machine. This move kept the film somewhat cooler also — another critical feature for running Magnascope.

A larger lens barrel of 2 25/32". This remained standard until the 50s.

The lens could easily shift its center from silent to sound apertures via a lever on top of lens mount — an important consideration for running Hell's Angels.

Slide-in changeable aperture plate. This made it very easy to switch from silent aperture to sound aperture to Academy mask.

Larger case for more working room while threading.

Double bearings on the intermittent sprocket for a steadier picture.

New framing knob arrangement sticking out on operating side. Previously a lever in back.

It is possible to state that three Super Simplexes replaced the three Powers projectors by the May 27, 1930 premiere of Hell's Angels, due to an eyewitness description of the booth as it was in 1930. Technician Frank Richardson, whose Richardson's Handbook of Projection had gone through five editions by 1927, wrote a regular column for the Exhibitors World Herald called "F. H. Richardson on Projection." In the November 8, 1930 issue, there is a column entitled, "The Capital City of Filmdom."

In it, Richardson states that he is visiting Los Angeles in time to visit the summertime convention of the International Alliance of Theatrical and Stage Employees (I.A.T.S.E.) Convention, presided over by its president, a Mr. Earl Hamilton (chief projectionist at the Metropolitan Theatre, in Downtown Los Angeles). He goes on to describe a visit to the Chinese booth, headed by Chief Projectionist, Mr. Fred E. Weaver, inventor of the Weaver Dowser. We quote:

The projection room is rather crowded with equipment. It has three Super Simplex projectors equipped with the new Ashcraft "600" super-high intensity lamps. The lamphouse almost hides the projector. The sound is handled by Western Electric equipment. The sound is on a separate film, which is run on a "dummy." The consensus of the Chinese theatre projection staff and those projectionists of other theatres in which this method is used, is that it is a decided improvement on the method in which both the sound and the picture are reproduced from the one film, which opinion I endorse.

I might add, as a bit of interesting information, that the projectors are equipped with a small blower fan from which the air is conveyed through a flexible metal pipe ending at the top of the cooling plate, where the air passes down over the aperture. In the opinion of Chief Projectionist Weaver, this has the effect of removing fully 75 per cent of the heat. The installation is very simple, not at all costly and is highly effective. Some of you old department fans may remember that this particular thing was recommended by me many times in past years.
Equipment manufacturers, however, did not adopt the suggestion, and as a result they have suffered great inconvenience from the warping of projector frames and parts, and the industry has sustained huge losses in film, to say nothing of the box-office losses caused by injury to the shows as a result of buckled film, all of which might easily have been averted had my suggestions been heeded years ago.

Super Simplex projectors with Hall & Connolly type HC-10 lamphouses, Western Electric 206 soundheads on Simplex Model M pedestal. From the Collection of Tom Wilson.

References: This article- [http://www.graumanschinese.org/projection-1.html](http://www.graumanschinese.org/projection-1.html)

Additional references: Super Simplex [http://www.darrell.org/SSbody.html](http://www.darrell.org/SSbody.html)