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THE PROJECTIONIST'S PROJECTOR

The Simplex Standard projector was so predominant in the early exhibition industry that other companies existed simply to supply aftermarket replacement parts for the Simplex. One of these suppliers, developing innovations of his own, created the **Century** projector. The Century could be called a "projectionist's projector," because founder Samuel "Sam" Kaplan, while designing the machine, was employed as a motion picture machine operator. Kaplan, in fact, was a past president of the New York City projectionist's union local.

The Kaplan Sure-Fit Company, owned by Sam Kaplan, began as a supplier of replacement Simplex projector parts. In the early 1930's, Kaplan's firm developed their own projector and became the Kaplan Projector Company. The original Kaplan projector was, like the Wenzel Ace and the Ballantyne BW, a direct copy of the Simplex Standard. The machines were so similar that parts could be interchanged among the three. Kaplan's machine was later marketed as the *Century* Model "K." Kaplan sold his company in 1938 to avoid conflicts of interest between the company and the operator's union.

Under its new management, the New York based Century Projector Company employed many of the highly skilled immigrant engineers and machinists streaming through Ellis Island to escape the growing conflicts in Europe. The new design team made extensive use of ball bearings in the new machine, a characteristic still apparent in present Century projector construction. The Century Model "P," introduced in 1939, departed from the Simplex design and would be recognized today as a Century machine.

Major differences between the Simplex and Century begin in the framing mechanism. Simplex machines correct framing by rotating the intermittent movement while the machine is running, and thus repositioning the intermittent sprocket. Rotating the Century framing knob employs rack and pinion gearing to move the intermittent movement up or down.

Another Century innovation was separating the intermittent sprocket shoes from the film gate. Closing a Simplex gate secures the film to the intermittent sprocket while simultaneously engaging the gate pressure pad to the film trap. The Century requires two actions: the threaded film is first secured to the intermittent sprocket by closing the pivoted intermittent sprocket shoe pad assembly, and then gate tension is applied by closing the gate onto the film trap. The Century permits adjustable tension to be applied to the intermittent sprocket and to the picture aperture separately and independently.

The Model "C" projector, introduced in 1940, defined Century as a serious competitor and a pretender to Simplex's crown. Different varieties of this head included the "CWC" (water cooled trap), the "CC" (double shutter), and the "F-1" and "G-1" made for the U.S. Army Air Corps. A four-inch lens barrel was made available in 1955, and became a standard feature in 1959. Model "C" production continued until 1961.

Early soundhead designs were protected by complicated patents held by Western Electric and RCA (PhotoPhone). Century did not produce a soundhead until 1941, when they purchased the R2 design from Western Electric. The present configuration of the Century soundhead (R3) was developed by Western Electric in 1947, and licensed to Century shortly thereafter. The basic R3 design is still in production, but is now available with reverse-scan optics using a visible red L.E.D. as an exciter light source, and is available in both analog and digital configurations.

In the early 1950's, the Century Projector Company was purchased by Harry Lebensfeld and became a subsidiary of the United Industrial Syndicate. Although Century's product was unrelated to UIS's other endeavors (hardware, furniture, auto parts, etc.), the company flourished and grew in acceptance among exhibitors.

Outside the normal 35mm cinema venue, the Model "C" served as the launching point for the "VV" (VistaVision) and "DD" (Cinerama) projection systems. VistaVision format projected a large 35mm frame from a horizontal plane; a total of 24 "VV" machines were produced from 1955 through 1958. The "DD" was a double-shutter unit with a 35mm five-perforation pulldown intermittent movement. Used for three-projector Cinerama installations, each head also featured water cooled traps, curved gates, footage and frame counters, and selsyn (sync) interlock gearing. Roughly 600 "DD" units were built from 1954 until 1962.

Experience gained from production of VistaVision and Cinerama machines led to the development of the Model "H" projector. The Model "H" intermittent movement employed a larger starwheel and cam, similar to those required by the high torque and acceleration demands of the "VV" and "DD" units. The Model "H" featured a more robust main frame, a four-inch lens barrel, and was available with water cooled traps, double shutters, and straight or curved gates. The Model "H" was manufactured from 1959 through 1961, when it was replaced with the current Model "A." The sturdy Model "H" intermittent movement is still used in current 35mm Century heads.

The Century Projector Corporation was never afraid to innovate. A 35/55mm machine with a magnetic soundhead (penthouse) was developed for Twentieth Century Fox for the first film release of Rogers & Hammerstein's *Carousel.* Probably no more than 50 of these machines were built, but the model served as a prototype for the "JJ" 35/70mm machine. The "JJ" was introduced in 1960, and is still in production.

When the three-machine Cinerama process gave way to the single-gate 70mm format, a modified Century "JJ" became the new Cinerama projector. After Cinerama ceased operations in the late 1960's, most, if not all of the Cinerama "JJ" heads were re-fitted for conventional 35/70mm use.

If imitation is truly the sincerest form of flattery, the Century projector has been flattered worldwide like no other projector since the 1909 Simplex Standard. "Century" projectors have been built as *Cinemex* (Mexico), *Centree* (Peru), *CineCita* and *Monee* (India), *Northern Electric* (Japan and Canada), *Westrex* (UK) and *Westar* (USA). Westrex and Westar are manufactured under a license granted by Century in 1950.

Optical Radiation Corporation (ORC), of Azusa, California, purchased the Century Projector Corporation in 1982, and moved operations to their Cinema Products Division headquarters in Azusa. In 1993, ORC sold the Cinema Products Division to Ballantyne of Omaha, Inc. Ballantyne presently manufactures all Century equipment, the Optimax Xenon Projection Console, the FXPS High Reactance Xenon Power Supply, and the Xenographic XL Xenon Slide Projector systems, and markets the products through Strong International.

Ballantyne has maintained the structural integrity and the simple, dependable design of the basic Century projector. In 1996, however, the "TA" lens turret was replaced with the proven TU2020 series used on the Simplex projector. Not only did this simplify production and hold down manufacturing costs, but it also allowed the introduction of a three-lens Century turret machine.