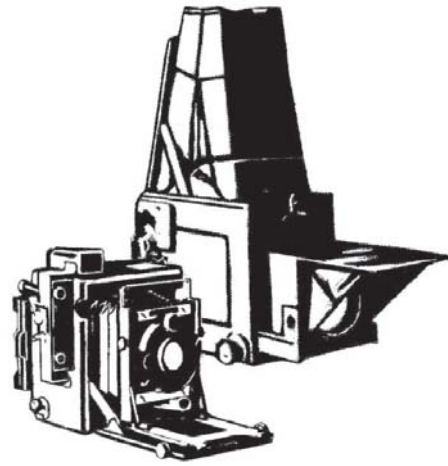


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No. 5, No. 6 and No. 16 Cirkut Cameras

By Bill McBride

Part 1



Figure 1. No. 5 Cirkut Camera made by the Folmer & Schwing Division of Eastman Kodak.

This article (previously published in *The Photographer*) covers the Nos. 5, 6 and 16 Cirkut Cameras. Future articles will cover the No. 10 Cirkut Camera and the No. 6 and No. 8 Cirkut Outfits.

The No. 5 Cirkut Camera (Figure 1) was first offered in 1915 and was available until 1923. It was the smallest and most compact Cirkut manufactured. William F. Folmer of the Folmer & Schwing Division, Eastman Kodak Co., applied for a patent in 1915 and received it (number 1,251,494) on January

1, 1918. The No. 5 Cirkut patent has the best detailed drawings of any Cirkut camera, and sheets from this patent are included as Figure 2. It was manufactured by the Folmer & Schwing Division of the Eastman Kodak Co.

The No. 5 Cirkut was provided with a triple-convertible Gundlach Manhattan Optical Rapid Rectigraphic lens with 6 1/4", 11" and 14" focal lengths. A rising and falling front is furnished to balance the negative for the required sky and foreground. The body of the camera is constructed of selected mahogany, with all exposed wood parts ebonized to harmonize with the rich gun-metal finish of the exposed metalwork, and the camera body is covered with the finest grade of Morocco leather.

An internal spring motor, which revolves the camera on the tripod head and winds the film, is controlled by an internal variable-speed governor. Exposure speeds that range from 1/2 to 1/12 of a second are regulated by a dial and pointer, and a release lever that starts and stops the exposure (Figure 3). Also shown in Figure 3,

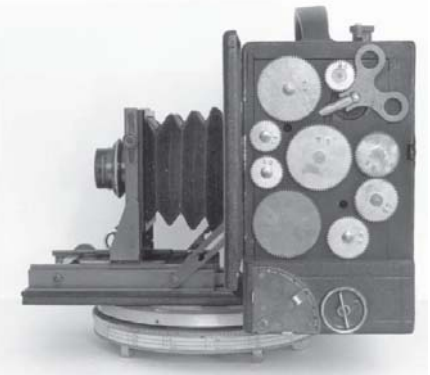


Figure 3. The No. 5 Cirkut Camera open, showing gear storage compartment, governor speed control dial, and

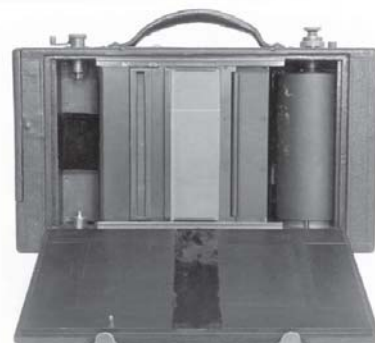


Figure 4. The No. 5 Cirkut with the back open, with the ground glass in position to focus.

are the nine pinion gear wheels, stored along with the winding key, in a "pocket" on the right side of the camera. An indicator on the body top shows, in inches, how much film has been used during an exposure. The back panel is provided with a perforating button to mark the film when

making more than one picture. Figure 4 shows the camera back open with the focusing ground glass in the focusing position. The back panel will not close unless the ground glass is shifted to the right to reveal the vertical exposure slot. One disadvantage of this model Cirkut is that the photographer cannot refocus once the film has started through. The No. 5 Cirkut could use 5" film, up to 42" in length. The No. 2 Crown tripod legs, along with a geared 7-inch diameter aluminum tripod top, were provided for the No. 5 Cirkut, and the bellows length is 12 inches.

There were approximately 400 No. 5 Cirkuts produced, in at least two batches, where the first production run in 1915 consisted of approximately 100 cameras that had serial numbers of 434xx, and the largest cluster of these cameras had serial numbers from 467xx to 469xx, where, in 1918, a total of close to 300 cameras were manufactured. The No. 5 Cirkut serial number was stamped on, and located inside on, the fold-down front bed at the rear center. The camera and all its apparatus came in a single sole leather case weighing 19 pounds.

The 1915 Graflex catalog had the No. 5 Cirkut priced at \$100.00. The 1917 Standard Photo Supply Catalog, Eastman Kodak Co., New Orleans, listed the No. 5 Cirkut complete outfit at \$118.00. The 1920 Graflex catalog priced the No. 5 Cirkut at \$151.59 (an odd amount!), where a 5" x 42" white label roll of Cirkut film sold for 85¢*. The 1929 Central Camera Company of Chicago catalog had the No. 5 Cirkut listed at \$83.65, to dispose of the cameras that they had left in their inventory.

The No. 6 Cirkut Camera (Figure 5 and Figure 6) was the same general design as the No. 5 Cirkut, but used 6" roll film and was manufactured by the Folmer Graflex Corporation of Rochester, New York. Folmer Graflex realized that the No. 5 Cirkut was limited to 42-inch lengths of film, so the No. 6 Cirkut was made to accommodate roll film up to 15 feet long. The No. 6 Cirkut was supplied with a Wollensak Anastigmat Series IA Raptar



Figure 5. The No. 6 Cirkut Camera, showing the extra sharp Wollensak triple convertible lens.



Figure 6. The No. 6 Cirkut open, exposing the nine pinion gears. Notice it is taller than the No. 5 Cirkut shown in Figure 4.

triple convertible f/7.7 lens of 7", 10" and 15½" focal lengths. The No. 6 Cirkut was sturdily constructed of selected mahogany and brass. All outside wood parts were covered with black grained Morocco leather, and the metal parts were mounted on the top of the body and finished in dull gray duco. A convenient

spirit level was provided to level the camera. The tripod setup for the No. 6 Cirkut was the same one used on the No. 5 Cirkut. The No. 6 Cirkut camera, complete, was fitted into a single well-made, very sturdy wood case that was covered with a cloth imitation leather material on the outside, and the inside compartment surfaces were lined with a purple velvet fabric. The outfit's total weight was 23 pounds. There were a total of 127 No. 6 Cirkuts manufactured. The serial numbers of the No. 6 Cirkut were 178529 through 178653, 180454, and 180455, where they were available from 1932 through 1949. To find the No. 6 Cirkut serial number, open the camera back, and it will be stamped on the body wood at the bottom, in front of the film winding drum. In 1932 the No. 6 Cirkut camera was priced at \$275.00, and in 1938 it was listed at \$293.50, where the net price was \$205.45. In 1932 a 6" x 15' roll of non-curling daylight film could be purchased for \$4.35, while Verichrome, in the same size, cost \$5.20.

The No. 16 Cirkut camera was the largest Cirkut roll film camera commercially produced. The article on the No. 10 Cirkut will describe the merger of the companies that manufactured the No. 16 Cirkut camera. There were two types of No. 16 Cirkuts manufactured; one that used air-resistance fans to control the camera rotational speed, and the other which utilized an internal variable-speed governor to control the camera rotational speed.

The first No. 16 Cirkut, a fan-type, was manufactured by the Rochester Panoramic Camera Co. in 1905. The camera came in three carrying cases, one for the body, one for the back and one for the tripod and gears, where the whole outfit weighed 90 pounds. The tripod top was 20 inches in diameter, and it provided a flat surface for the rollers on the camera bottom to rotate. A triple convertible Turner-Reich Anastigmat lens made by Gundlach-Manhattan Optical Co. was supplied with 15", 24" and 36" focal lengths. A set of nine camera gears (three for each focal length) was furnished, along with five air resistance fans which provided shutter speeds of 1/3, 1/6, 1/10, 1/25 and 1/30 of a second. This No. 16 Cirkut was the only one made that had an adjustable exposure slit of 1/8", 1/4" and 1/2". The camera was constructed of mahogany and covered with Morocco leather. The exposed wood was varnished natural, the metal parts nickel plated, and bright red leather bellows (39 inches in length) were provided for this camera. The lens could be raised or lowered to arrange the amount of sky or foreground required in the picture. The lensboard could be tilted when making negatives of groups of people where the subjects occupied several rows, to get these rows in the proper perspective in the picture. The film back was provided with a perforating button to mark the roll film when taking more than one picture. The film made available for the No. 16 Cirkut was 8", 10", 12" and 16" in width up to 20' long. When using the 36-inch focal length lens, a 360-degree picture would produce a negative 18 feet long.

From 1905 to 1907, the No. 16 Cirkut was manufactured by the Century Camera Company of Rochester, N.Y., who purchased the Rochester Panoramic Camera Company in 1905. The Century Camera Co. No. 16 Cirkut was identical to the Rochester No. 16 Cirkut, except that the exposure slit was fixed at 1/4" in width, and three fans of 1/3, 1/6 and 1/10 of a second shutter



Figure 7. The Century Camera Co. No. 16 Cirkut.



Figure 8. The Century Camera Co. No. 16 camera with open film box.



Figure 9. The Century Camera Division of Eastman Kodak Co. No. 16 Cirkut front view. Notice that the scissors mechanism shown in Figure 7 has been deleted.



Figure 10. The No. 16 Cirkut with the film box removed with the ground glass extended to focus on the next picture.

speed were provided instead of five fans on the previous version. Figure 7 shows the front view, and Figure 8 illustrates the open film box of a Century Camera No. 16 Cirkut. In 1907 the Century No. 16 Cirkut was priced at \$425.00, or the same could be purchased without lens and shutter for \$350.00. A roll of film 16 inches by 20 feet was listed at \$12.80.

In 1907 Eastman Kodak Co. created the Century Camera Division which manufactured the next version of the No. 16 Cirkut (Figure 9). The No. 16 Cirkut made by the Century Camera Division was the same as the one previously produced by the Century Camera Co., except that the scissors-type mechanism, for raising and lowering the lens, was redesigned to use a rack and pinion-type mechanism. Also, the spring for the motor was made larger and more powerful. To focus the camera, the film box is removed, and the internal ground glass is extended as shown in Figure 10. The fan-type No. 16 Cirkuts had a wide range of serial numbers, so it appears the company manufactured cameras when they received orders for some.

The Century Camera Division redesigned the No. 16 Cirkut about 1915, to replace the air fan speed control system with an internal variable governor speed control system which had speeds of 1/2 through 1/12 of a second available. The speed control dial and start and stop lever were similar to the one shown in Figure 6. The camera was made of mahogany covered with Morocco leather, the exposed wood parts were painted with an ebonized finish, and exposed metal parts were oxidized to give a nice gun metal-type finish. This 1915 governor-type model serial number range appears to be 68370 through 68390. The Century Camera Division catalog listed the No. 16 Cirkut, complete, at \$425.00 or without a lens and shutter at \$350.00. The 1916 Graflex catalog listed the No. 16 Cirkut at \$629.85, where a 16" x 20' roll of film was available for \$15.20.

In 1917 the Folmer & Schwing Division of the Eastman Kodak Co. manufactured the same governor drive No. 16 Cirkut as the Century Camera Division of Eastman Kodak Co. The only difference was the nameplate. The Folmer & Schwing Division produced the last batch of No. 16 Cirkuts and of 36 governor-type cameras in 1917, which had serial numbers ranging from 80737 to 80772. The 1917 Standard Photo Supply Co. catalog, Eastman Kodak Co., New Orleans, had the No. 16 Cirkut, complete, priced at \$445.00 or without lens and shutter at \$370.00. In 1920 the roll film of 16" x 20' cost \$15.20, which included the war excise tax. The Folmer & Schwing No. 16 Cirkuts were available until 1924.

Because the No. 16 Cirkut was listed in catalogs from 1905 through 1924, it would appear that many were made, but it was bulky to handle, and it was an expensive camera to purchase for the average photographer. Just how many No. 16 Cirkuts were manufactured is not known, but from information that exists, the total production of the No. 16 Cirkuts, which includes the fan and governor speed control types, is approximately one hundred cameras. There were about 43 fan-type and 57 governor-type No. 16 Cirkuts constructed. Nearly a third of them have survived today.

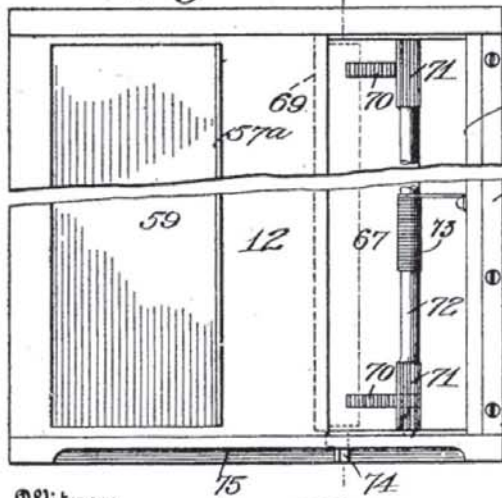
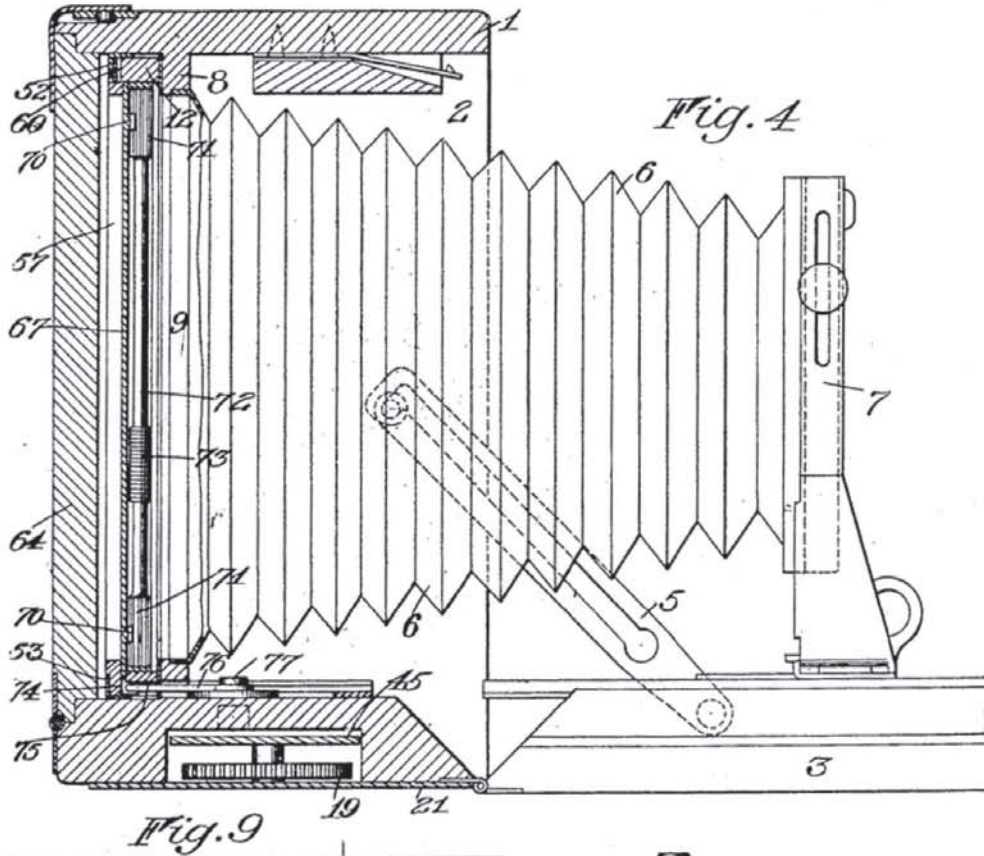
The text is based on the best information and materials available at the time of writing. The writer would appreciate any additional information available and/or comments on this article. Bill McBride, (805) 684-7268 or ramabill@cox.net.

*On the Cirkut Cameras, the exposure slot is in the back of the film box, while on the Cirkut Camera Outfits, the exposure slot is on the front of the film box. That's why the films are wound differently for each type of Cirkut Camera.



1,251,494.

Patented Jan. 1, 1918.
 5 SHEETS—SHEET 2.



Witness
Halter D. Payne

Inventor
William F. Folmer
 By *Chamberlain*
 his Attorneys

Figure 2.