

12 x 20 Folmer and Schwing restoration by David Hoyt



William Folmer and William Schwing started making cameras in 1890. Between 1907 and 1917 the company changed hands and became the Folmer and Schwing Division of Eastman Kodak Company. It was during that period that this particular camera was manufactured. Often referred to as a "banquet" camera, it was used by professionals to photograph large groups of people. Fine grain film and enlargers were not yet common and the best alternative was a large negative that yielded a full size 12 x 20 inch contact print. William Folmer and William Schwing started making cameras in 1890. Between 1907 and 1917 the company changed hands and became the Folmer and Schwing Division of Eastman Kodak Company. It was during that period that this particular camera was manufactured. Often referred to as a "banquet" camera, it was used by professionals to photograph large groups of people. Fine grain film and enlargers were not yet common and the best alternative was a large negative that yielded a full size 12 x 20 inch contact print.



It is difficult to imagine a camera of this size, however, compared to a 35 mm SLR, the proportions take on real meaning.

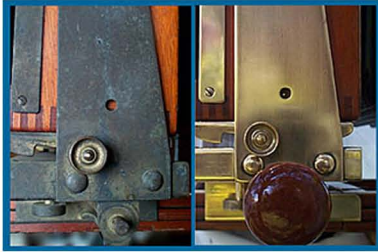


Viewing a scene in the ground glass is like looking at a flat panel wide screen TV (except the image is upside down and backwards).



I. Under carriage and back swing lock knob ~ r. Lower left corner of camera back

In order to restore the brass parts the camera was disassembled and all brass parts were buffed and restored and then sprayed with a clear lacquer designed to coat metal. Multiple notes and photos were made during the process in order to keep a record for assembly. A few new parts were fabricated from brass.



I. Rear focusing and tilt locks (knob was missing) ~ r. Front focusing knob

Proper notes were helpful during reassembly. Note that these cameras were handmade and the parts were not always interchangeable i.e. the focusing rails need to be reinstalled in the exact location as originally built.



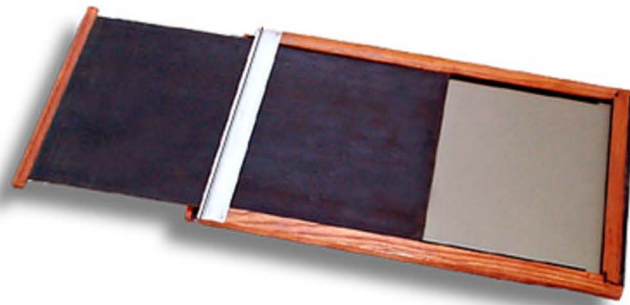
I. Front of lens board (rise and fall adjustment) ~ r. Front Bellows tilt mechanism

The wood structure was sound with rough finish. All wood was cleaned, sanded lightly and sprayed with a clear gloss varnish.





A Nikon-M 450 mm f/9 mounted on a bakelite lensboard adequately covers the 12 x 20 inch film.



The 3 most challenging aspects of the restoration were ground glass replacement, bellows replacement and making new film holders.

The replacement ground glass was made from a clear sheet of glass that was then ground by rubbing it on a sheet of plate glass coated with water and valve grinding compound. Slow easy pressure and moving the glass in a random pattern yielded a great new ground glass back.

The old worn bellows were removed and sent to a bellows manufacturer who used the original as a pattern for the replacement.

The film holder was the most difficult. Accuracy is paramount as the distance the film is located from the frame edge thickness must match exactly the frame thickness to the ground glass. In addition the film holders need a spring loaded light tight strip across the opening where the dark slide enters. Sheet aluminum and straight grained ash were used to construct the new holders.

For a more detailed instruction on camera restoration see an article that was published in View Camera Magazine entitled *View Camera Restoration by David Hoyt*.

appendix

A History of The Rochester, NY Camera and Lens Companies by Rudolf Kingslake

Source: Kingslake, Rudolf, 1974, "The Rochester Camera and Lens Companies", Rochester NY, Photographic Historical Society.

In 1887 William F. Folmer and William E. Schwing entered into partnership to establish a bicycle company in New York City. The company was incorporated in April 1890 as the "Folmer and Schwing Manufacturing Company." Because of the general association of bicycles and cameras at that time, the company gradually added cameras to their line, probably made first by Scovill and Adams. Their 1896 catalog shows a "4 x 5 Cycle Graphic camera" on the back page; this sold for \$25 with a Victor shutter and Rapid Rectilinear lens. They also listed regular "Graphic" cameras in three sizes up to 6 1/2 x 8 1/2 inches, costing \$50.

Mr. Folmer was an inventor, and in 1898 he built the first Graflex camera. This had a complicated focal-plane shutter with a variable aperture, but it gave so much trouble that in 1904 he changed it to a simple cloth curtain with a series of apertures of different widths, leaving the user to select the one required for any given exposure. This arrangement proved to be highly reliable, and it was manufactured for over 60 years.

In April 1905 the Folmer and Schwing Manufacturing Company was purchased by George Eastman and brought to Rochester, where it was installed in the building at 12-14 Caledonia Avenue. This building had been previously occupied by the Rochester Camera Company, in 1898, and by the Century Camera Company since 1903. In 1907 the company became the Folmer and Schwing Division of Eastman Kodak Company, and in 1917 the Folmer-Century Division. Mr. W. F. Folmer continued as general manager until 1926.

In 1926, as a result of a court order, the Folmer-Century Division of Eastman Kodak Company was offered for sale, but no buyers appeared. So finally the Folmer Graflex Corporation was organized to take over the assets of the Division. Mr. Nelson Whitaker became president and general manager in 1928, and his son Gaylord C. Whitaker succeeded him in 1949. The company became known as "Graflex Inc." in 1945.

Business was bad during the depression of the 1930's, and the payroll dropped to less than 100 employees. However, things gradually improved and we learn that by 1957 there were 760 employees. The best known product of the company was for a long time the "Speed Graphic", a solid reliable camera that was the work-horse of the press photographer; indeed, it almost became his badge of office. Numerous other models have, of course, been made over the years.

In August 1956 Graflex became a division of General Precision Equipment Corporation, and in July 1957 the plant was moved out to 3750 Monroe Avenue, near Pittsford. The company became the Graflex Division of the Singer Corporation in 1966, and it is now known as "Singer Education Systems", engaged in making audio-visual equipment.