

THE GOLDEN CROWN MILL

Socorro, New Mexico

By Paul Harden, June 2011

All photos by Paul Harden
unless otherwise indicated.
UPDATED: Nov. 2011

NOTE: This is a work in progress to document the historic Crown Mill, photograph and identify the machinery, and other pertinent information. This file will be updated periodically when new information is added.



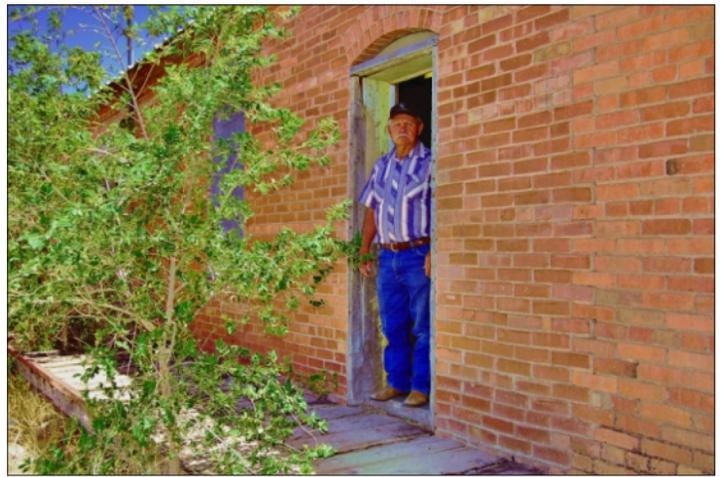
Photo of the Crown Mill in 2005 showing the deterioration of the roof and third story.



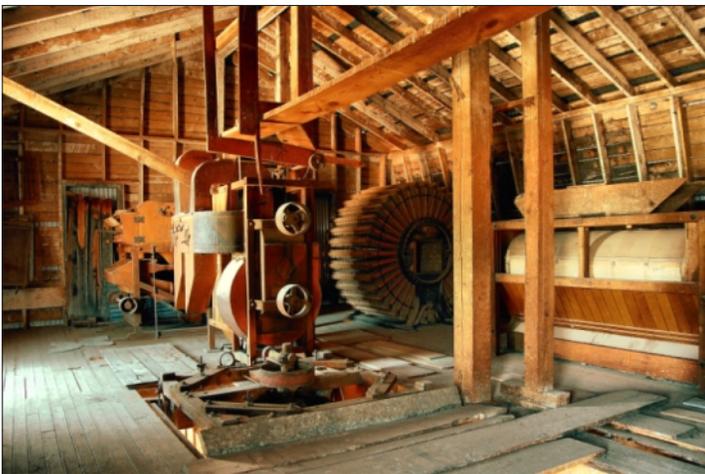
Crown Mill in 2011 following restoration to strengthen the top story and a new roof.



The Crown Mill on the remnants of the Santa Fe RR Magdalena spur line, looking east.



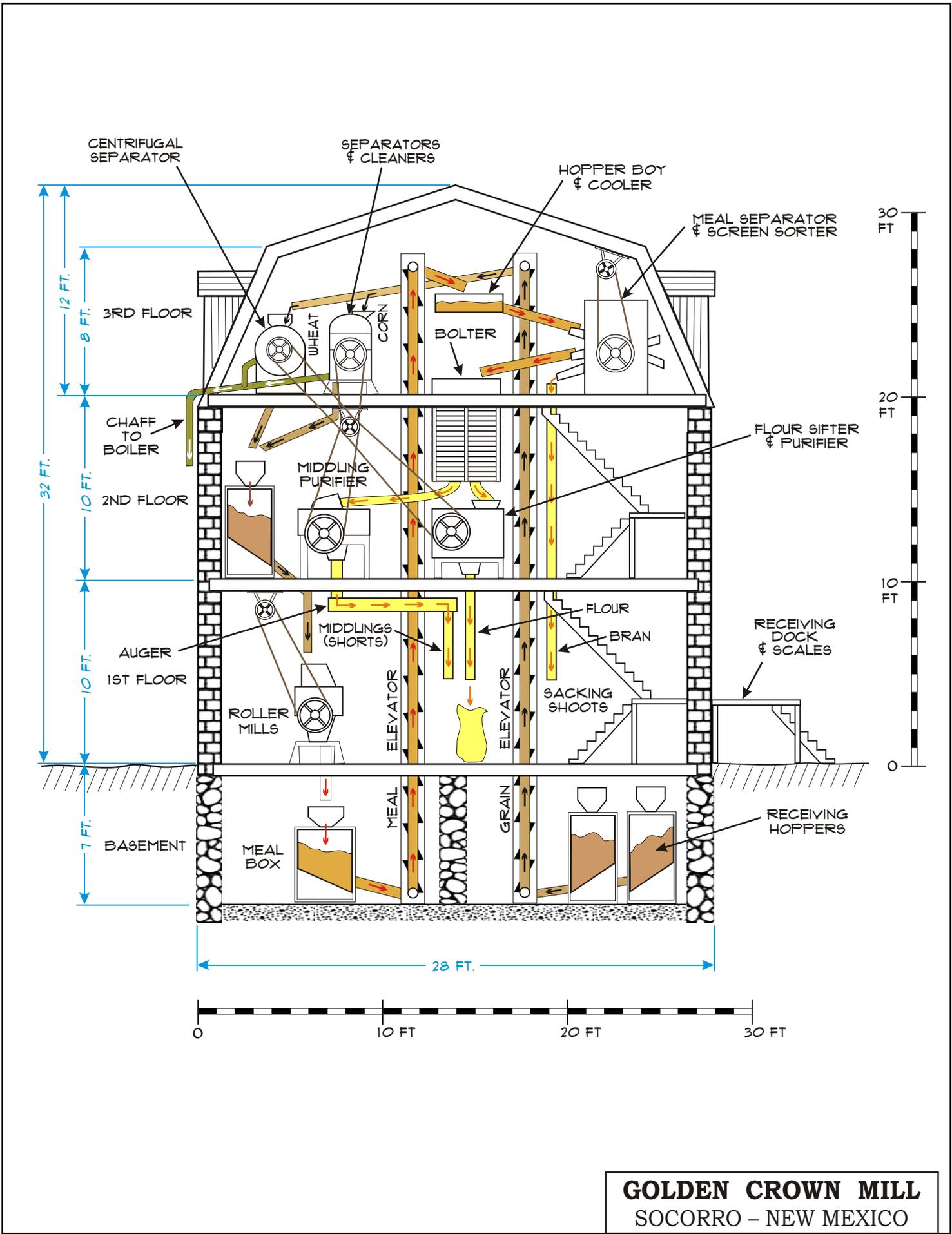
Edward Savedra, current owner of the Crown Mill.



Top story – east end. Dust collector and separator-scourer in rear, bolter in center. Right is an Allis-Chalmers centrifugal separator-purifier; “Grade 1” flour is stamped on the Crown Mill machine.



Top Story – west end. Auger type grain cleaner and another dust collector. Note rebuilt framework and roof.

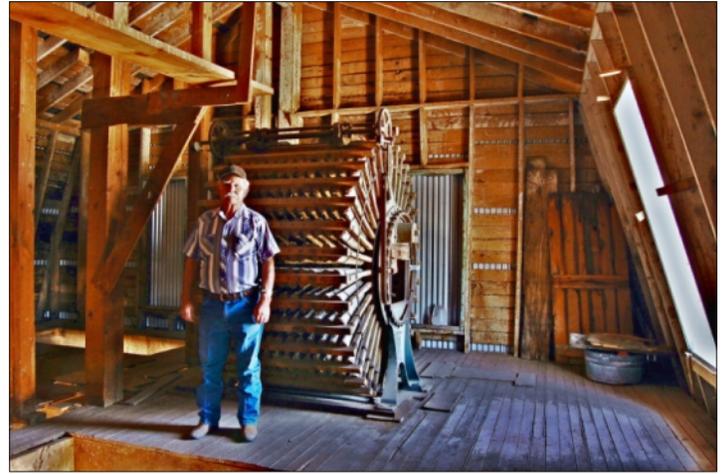


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GOLDEN CROWN MILL – Socorro, New Mexico



One of the Prinz & Rau Mfg. Co. dust collectors - it spun to filter the air of flour dust to prevent fire or explosion.



Owner Edward Savedra standing next to one of the dust collectors on the top floor.



Top story – center. Looking into the “bolter” which began the grinding and sorting operation.



Looking into the second story from a hole in the floor on the top story.



2nd Story. Looking into a portion of the 2nd story from the stairway leading to the top floor. Machine on left is a “Consolidated Middlings Purifier.”



2nd Story. Stairway to the top floor in rear with two of the flour sifters on the right.

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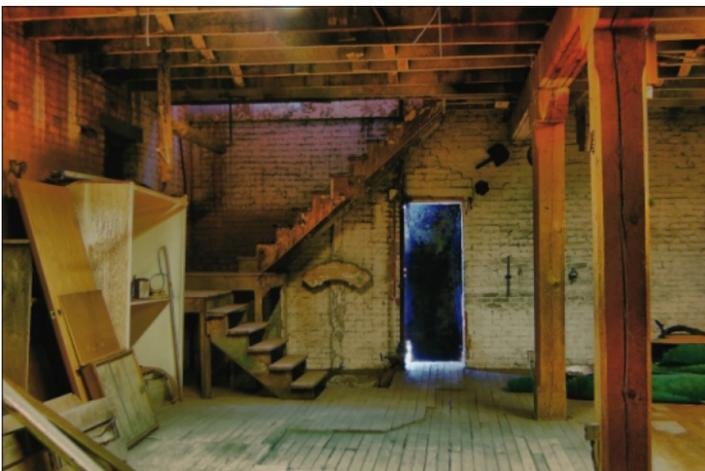
2nd Story. View of the “bolter.” The ground grain entered the bolter on the 3rd floor by gravity and spun to separate the meal into different grades. The circular “plates” are removable screens that determine how course or fine the meal is processed. Photo on right shows the canvass “tubes” where the different meal grades emerged, which fell by gravity to bins on the first floor where the final product was placed into sacks.



2nd Story. A closer view of the power train that drove all the machinery with leather belts.



2nd Story. Another machine of unknown purpose on the 2nd floor. A portion of a storage bin on the right.



Ground Floor – west end. All machinery on the ground floor has been removed by previous owners.

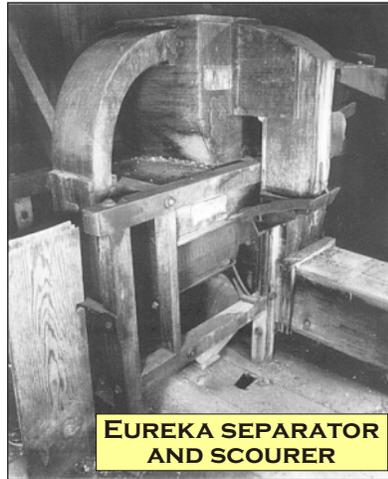


Ground Floor – west end. Power train turns an auger for moving grain to a pour shoot for filling the sacks.

Crown Mill Machinery

Following is an attempt to identify as much as possible the milling machinery in the Crown Mill

The Separators



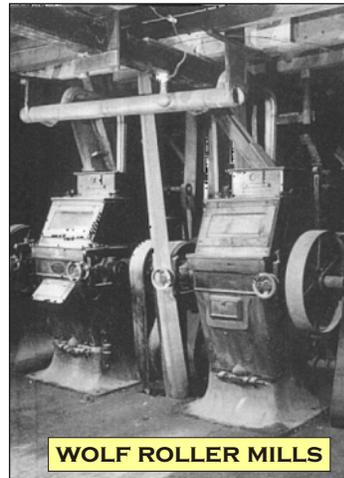
A “separator” was a generic term for machinery that performed some level of cleaning of the raw grain before milling. By the 1890s, a new machine called a “separator and scouring machine” replaced several previous machines to perform the task of cleaning the grain in single step.

One of the “separator and scouring machines” in the Crown Mill (left photo) is located on the 2nd floor. The identification decal on the machine has faded and unreadable. It appears similar to the popular “Eureka separating and scouring machine” (right photo) manufactured by Robinson Mfg. Co., Muncie, Penn. and the S. Howes.

Co., Silver Creek, N.Y. The S. Howe Co., founded in 1856, is still in business making separators and other milling machinery.

The Eureka would process 30 bushels of grain per hour and presumably about the same for the similar Crown Mill separators. It used a combination of brushes, screens, and forced air for separating dirt and chaff – the “smut” – from the grain.

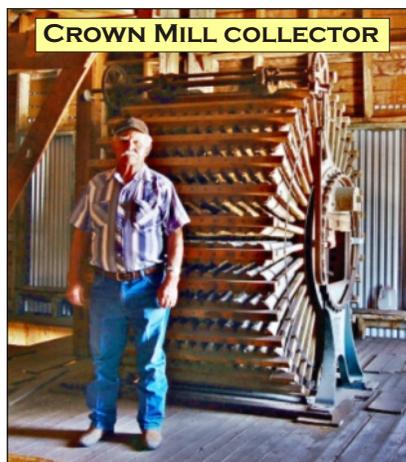
Grain roller mill grinders (the “mills”)



Replacing the old traditional “mill stones,” the “new” mechanized roller mills revolutionized the milling industry in the late 1880s. A review in an 1890 “American Miller” journal states, “Any mill not converting to the roller mill process will simply not be able to compete in the industry.”

A circa. 1900 photo of the Crown Mill (left photo) shows the roller mills used by John Greenwald. They were located on the ground floor, removed by a previous owner of the mill after 1965, and thus their identity not known. The center photo shows roller mills manufactured by the Wolf Company of Chambersburg, PA. The right mill in the photo, a Wolf “standard double Style A, model 2720” (which means 2 sets of 7” dia. rollers 20” long) appears to be the type used by the Crown Mill. A Wolf mill processed 50 barrels per day, a barrel of flour weighing 196 pounds. The three Crown Mill machines, at 196 pounds per hour each, would have yielded 14,000 pounds of flour per day – similar to the 10,000 pounds per day cited in Crown Mill advertising. Competitor machines were similar (right photo) though distinctly different in appearance, many made of wood with metal rollers and drives. The Wolf mills were more expensive, but more reliable for being solid steel machines. They are still in use in small, private mills.

Dust Collectors



These curious machines are well labeled as "Perfection - Prinz & Rau Mfg. Co., Milwaukee," though their purpose or function baffling at first.

These machines are dust collectors, identified by an identical machine on display at the Farm Collector museum in Meridan, Kansas. The caption from their website reads:

"Accidental fires and explosions caused by accumulated milling dust and overheated bearings posed a constant threat to flour mills in the 1800s. This Perfection dust collector, manufactured by Prinz & Rau Mfg. Co.,

Milwaukee, came out of a Nashville Milling Co. operation in southern Illinois. The device created a vacuum to collect milling dust in each of these 460 authentic cotton tubes, or socks, which had been preserved for years in sealed metal containers."

Cited as a "rare" example and one of the few known Prinz & Rau Perfection Dust Collector on display in the country. The Crown Mill has several of them, located on both the 2nd and 3rd floors, in what appears to be in excellent condition. The cotton "socks" are on all Crown Mill machines and appear clean with no tears or rips.

An internet search also found some old advertising on the Perfection Dust Collectors shown below.

AMERICAN MILLER. 977

A Pair of Orders.

John S. ...

THE PERFECTION DUST COLLECTOR.



This is the machine that "has proved to be the most satisfactory of any Dust Collector" they ever had.

You Try it and You Will buy the Same.



THE "IRON PRINCE."

REAL PRINCE.



THE "IRON PRINCE."

THE PRINZ & RAU MFG. CO., MILWAUKEE, WIS

Read This!! Three to Nine....

EAGLE MILL.
SPRINGFIELD, MO., JUNE 25th, 1898.
MESSRS. PRINZ & RAU MFG. CO.,
Milwaukee, Wis.



THE IRON PRINCE SCOURER.



THE PERFECTION DUST COLLECTOR.

GENTLEMEN:—Prior to January of the present year our wheat cleaning department consisted of the following machines: one Milling Separator; two Horizontal Scourers, No. 2; one Horizontal Brush, No. 3; four Cyclones and one Mitchell Dust Collector—in all nine machines.

In January we replaced all the above list except the Milling Separator with one of your No. 3 Iron Prince Scourers and one No. 37 Perfection Dust Collector. The Perfection Dust Collector handles the air from the Iron Prince and the Milling Separator, and the three machines now do in a much more satisfactory manner what the nine formerly did.

We now have ample room for our machines whereas before they were badly crowded. We no longer receive requests from the engineer to shut the wheat off the cleaners, and to take off "any other old thing" to lighten the load which were more than frequent before we made the change. We therefore assume we are saving some power. We are satisfied with the machines.

Very truly,
SPRINGFIELD MILLING CO.,
Per S. FRAZIER, Head Miller.

THE PRINZ & RAU MFG. CO.,

WRITE US. . . . MILWAUKEE, WISCONSIN.

An ad for the Prinz & Rau Mfg. Co., Milwaukee, Wis. in an 1895 issue of "American Miller" magazine.

Another ad for the Perfection Dust Collector, circa. 1903.