

IDAHO: A HISTORY OF INVENTION

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Idaho consistently ranks among the leading states in innovation.² The lofty ranking is in keeping with the innovative and entrepreneurial spirit characteristic to Idahoans since its early days as a territory. Insight into the history of Idahoan innovation can be read from the patents of the age, and this article briefly details the first few patents awarded to Idahoans, which helped pave the way for today's continued climate of ingenuity.

Idaho inventors were awarded 1,290 U.S. patents in calendar year 2010.³ This may not be surprising to those of us that live and work in the state; we know about the proclivity and success of our high-tech residents.⁴ However, what is more representative of Idaho's spirit of innovation is that those patents were awarded in fields of technology ranging from apparel to zeolites and everything alphabetically in-between.⁵

This breadth of technology can be traced back to the first Idaho patents which were also awarded in a wide range of industries. Of course, the technology of the mid-nineteenth century was based more on metal and steam compared to today's silicon and electron. Nonetheless, as recounted below, the innovations spanned a wide gamut of fields.

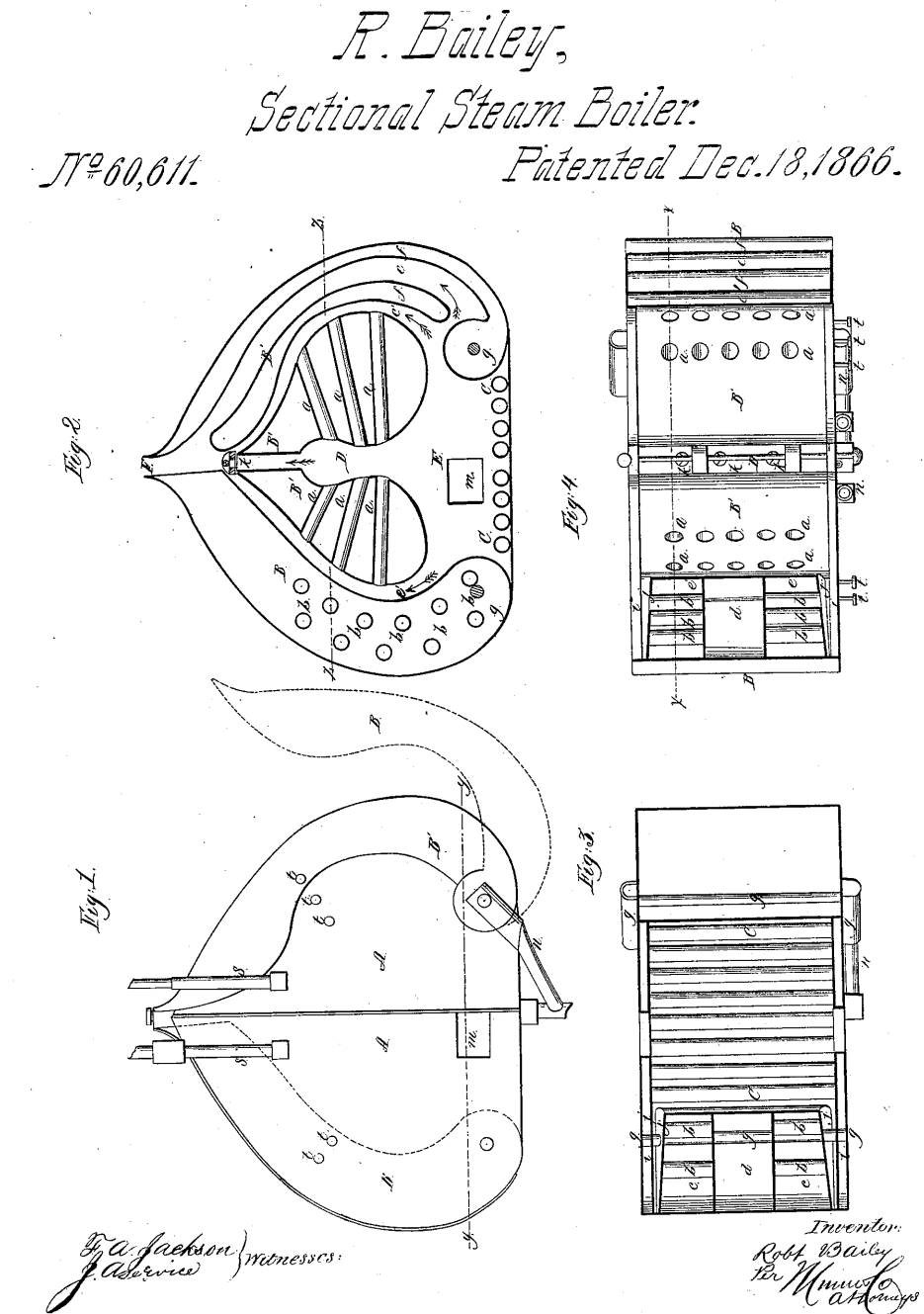
The first patent in Idaho dates back to 1866, when U.S. Patent No. 60,611 issued to Robert Bailey of Idaho City, in the Territory of Idaho. Not surprisingly, the invention related to mining, a key industry of the early Territory, and was an improvement in steam boilers that



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was "particularly adapted to mining purposes in distant interior localities, where transportation is difficult and expensive."⁶ The mining camps in Idaho, circa 1866, certainly fit the description of distant interior localities where transportation was difficult.

Mr. Bailey continued his innovative ways, earning the second patent in the Territory in 1867 with an improved quartz-crusher.⁷ Again, locality being the mother of invention, the quartz crusher



reflected the difficulties of life on the mining frontier "where transportation is difficult and expensive, [and the crusher could] be made principally of materials on the ground."⁸

One hundred miles southwest of Idaho City, another mining boom-town, Silver City, was large and cosmopolitan enough in 1865 to publish the territory's first newspaper, the *Owyhee Avalanche*.⁹ There, in 1869, John S. Butler, the publisher of a competing paper, *The Tidal Wave*, which eventually merged in 1870

with the *Owyhee Avalanche*, invented an improvement in copy holders for use in type setting.¹⁰ The purported advantages of the copy holder were that it held the paper in place securely, while taking up little space and not obstructing any of the type-boxes holding the letters to be used in printing the day's news.¹¹

In 1871, the fourth and fifth patents in the Idaho Territory, came again out of Silver City, when William E. Phillips invented an improvement in oil lubricators for machinery.¹² In that same year, and same

city, another improvement for machinery was invented by Charles P. Bowen, who invented a governor to regulate the speed of steam engines.¹³ Again, both inventions most likely found applicability in maintaining and operating the steam engines and machines driving the industries of the day.

Later, in 1873, two miners, Henry T. Lantis and Nelson Davis, invented an improvement for wire rope-ways¹⁴ specially adapted for operation in mining tunnels.¹⁵ Messrs. Lantis and Davis resided in the town of Atlanta, Idaho. One novel feature of their arrangement was the use of split pulleys to allow a load bearing hook, connected to the wire-way, to pass through the pulley and still support the load. This allowed for a more compact construction and enabled the wire-way to turn sharper corners which had obvious advantage in the mining tunnels.¹⁶ Such an arrangement can still be seen in use on the ski lifts of Idaho today.

The city of Boise made its first contribution to the innovation assets of the territory, when in 1876, William C. Carlton, was granted the seventh patent in the territory for an improvement in bolt and rivet cutters.¹⁷ An interesting tool, it allowed for a pivoting cutter head to reach into difficult places where “common forms of tools” would not fit.¹⁸ No doubt the cutter facilitated the construction of the “bridges and machinery” vital to the railroad, mining, and other industries of the time.¹⁹

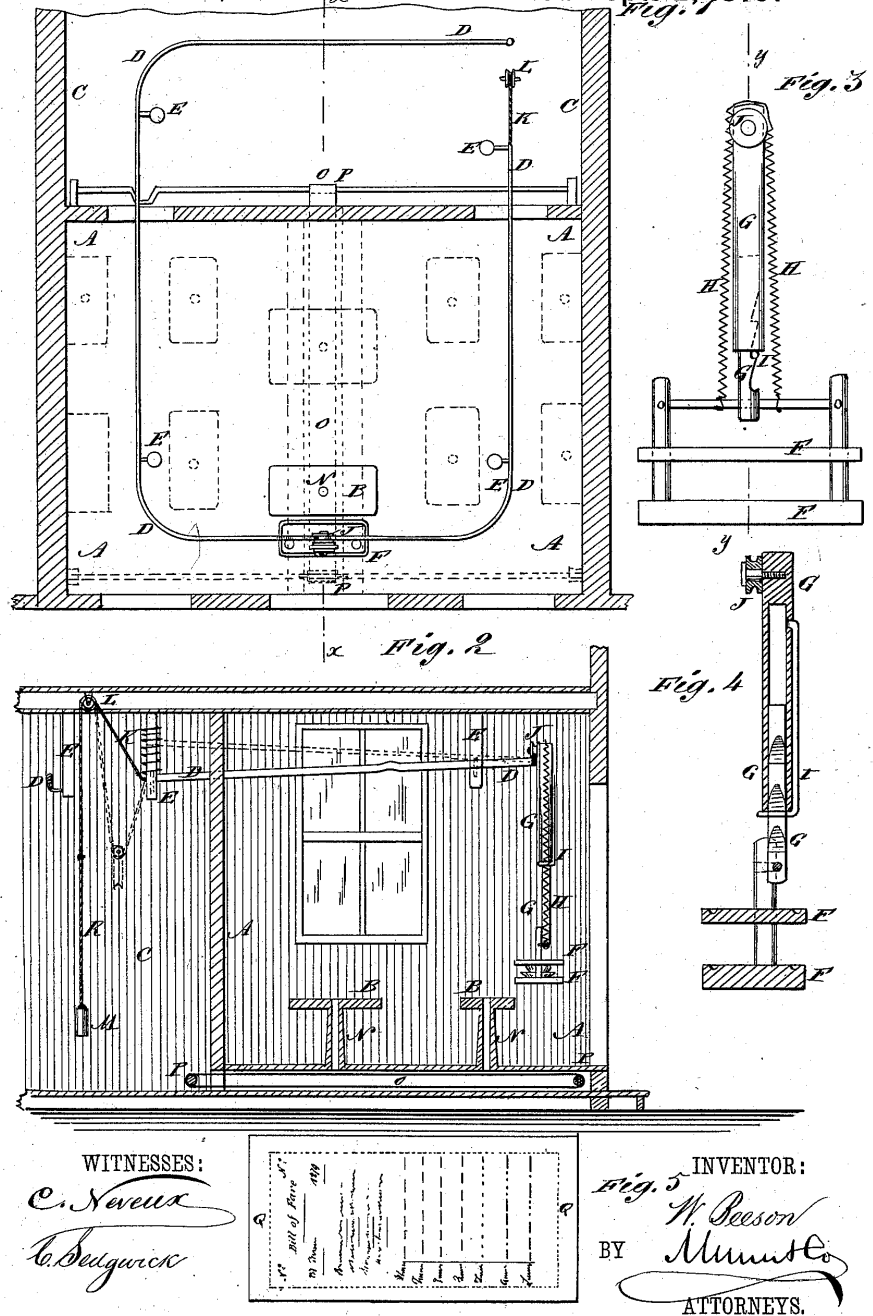
That same year, 1876, Charles M. Hayes of Idaho City received the eighth patent in the Idaho Territory for developing a ruler to aid in bookkeeping.²⁰ In something of an ergonomic improvement, the ruler was slotted to enable “one using it to see, without stooping, rising, or changing his position (at a table or desk) the figures under which a balancing line is to be drawn[.]”²¹ Mr. Hays went on to be the publisher of the previously noted *Idaho City Avalanche* in 1882.²²

Mr. Bowen, also from Idaho City, was awarded two more patents in 1878, the territory’s ninth and tenth.²³ The ninth was for a machine to aid in the agricultural industry and comprised a fruit pitter and slicer, and had applicability in quartering peaches and simultaneously removing the pits.²⁴ Mr. Bowen’s other invention supported the mining industry and was an amalgamator used to process ore by “thoroughly stirring the ore with mercury.”²⁵

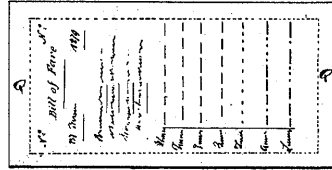
In 1879, David B. Kimmel earned a patent²⁶ in another key industry of the territory, the railroad. Mr. Kimmel invented a balance slide valve for steam engines

W. BEESON.
Automatic Table-Waiter.

No. 219,200. Patented Sept. 2, 1879.



WITNESSES:
C. Newell
C. Sedgwick



INVENTOR:
W. Beeson
BY *Munroe*
ATTORNEYS.

that was “especially fitted for locomotive-engines, in which the valves and ports are large and, the valves are subject to great pressure and rapid motion.”²⁷ In that same year, William Beeson, of the settlement of Eagle Rock along the Union Pacific’s Utah and Northern Rail Road,²⁸ received a patent for an improvement in automatic table waiters. Perhaps arising out of a shortage of man-power in then sparsely settled Oneida County,²⁹ Mr. Beeson’s

patent discloses a food ordering and delivery machine operable by a single cook in a kitchen and intended “to take the place of waiters in restaurants, saloons, and other places.”³⁰ It is not known whether any hungry Utah and Northern Rail Road patrons were ever served by the automatic waiter, but one hopes so, because it would have been something to see.

As the decade of the 1870’s came to a close, and still some 20 years from state-

hood, inventors in the Idaho Territory had been awarded almost 20 patents. As can be appreciated, these early innovators advanced the industries of the time: agriculture, mining, printing, railroads, and more. This tradition continues in Idaho today in the high tech industries of this age.

About the Author

Chris Cuneo, *Of Counsel at Zarian Midgley Johnson*, is a registered patent attorney practicing primarily patent litigation and prosecution. Previously an Examiner at the U.S. Patent Office, working in green technologies such as wind, wave, and solar power generation, he has a JD from George Washington University, and an MS (Physics) from Oregon State University.

Endnotes

¹ The author wishes to acknowledge the extremely useful search tools provided by the Historical Idaho Patents Database at the University of Idaho, available at <http://db.lib.uidaho.edu/patents/> (last visited April 26, 2011) and the research detailed in the informative article by Karen F. Hertel, *Idaho Ghost Towns: Patents as a key to the past*, 3 Intellectual Property (IP) Journal of the PTDLA, 1 (2003), which proved invaluable in researching this paper.

² According to the Idaho Department of Commerce, "Idaho is one of the most innovative states in the nation, consistently ranking 2nd in patents issued (per capita) by the U.S. Patent Trademark Office." See <http://commerce.idaho.gov/investments/resources/>

[research-institutions/](#) (last visited April 26, 2011).

³ Total taken from USPTO.gov database search for Idaho as inventor state and issue year of January 1, 2010 through December 31, 2010.

⁴ For example, Hewlett-Packard, Idaho National Laboratory, and Micron Technology all have a significant presence in Idaho.

⁵ See, e.g., U.S. Patent No. 7,673,350 (filed Jan. 31, 2005) (a cap) and U.S. Patent No. 7,713,423 (filed Feb. 4, 2008) (reactive filtration using zeolites).

⁶ U.S. Patent No. 60,611 p. 1 (issued Dec. 18, 1866).

⁷ U.S. Patent No. 64,060 (issued Apr. 23, 1867), titled "Improved Quartz Crusher," and issued to Robert Bailey of Idaho City.

⁸ U.S. Patent No. 64,060 p. 1 (issued Apr. 23, 1867).

⁹ Karen F. Hertel, *Idaho Ghost Towns: Patents as a key to the past*, 3 Intellectual Property (IP) Journal of the PTDLA, 1, 12 (2003).

¹⁰ U.S. Patent No. 96,391 (issued Nov. 2, 1869), titled "Improvement in Copy Holders," and issued to John S. Butler of Silver City.

¹¹ U.S. Patent No. 96,391 p. 2 (issued Nov. 2, 1869).

¹² U.S. Patent No. 114,194 (issued Apr. 25, 1871), titled "Improvement in Lubricators," and issued to William E. Phillips of Silver City.

¹³ U.S. Patent No. 120,366 (issued Oct. 31, 1871), titled "Improvement in Governors for Steam and Other Engines," and issued to Charles P. Bowen of Silver City. This patent later reissued as RE 4,931 on Jun. 4, 1872.

¹⁴ U.S. Patent No. 142,857 (filed Jun. 26, 1873), titled "Improvement in Elevated Wire-Ways," and issued Sep. 16, 1873 to Henry T. Lantis and Nelson Davis of Atlanta City.

¹⁵ U.S. Patent No. 142,857 p. 3 (filed Jun. 26, 1873).

¹⁶ U.S. Patent No. 142,857 p. 3 (filed Jun. 26, 1873).

¹⁷ U.S. Patent No. 183,640 (filed Apr. 29, 1876), titled "Improvement in Bolt Cutters," and issued Oct.

24, 1876 to William C. Carlton of Boise City.

¹⁸ U.S. Patent No. 183,640 p. 2 (filed Apr. 29, 1876).

¹⁹ U.S. Patent No. 183,640 p. 2 (filed Apr. 29, 1876).

²⁰ U.S. Patent No. 185,102 (filed Apr. 29, 1876), titled "Improvement in Rulers," and issued Dec. 5, 1876 to Charles M. Hays of Silver City.

²¹ U.S. Patent No. 185,102 p. 2 (filed Apr. 29, 1876).

²² Karen F. Hertel, *Idaho Ghost Towns: Patents as a key to the past*, 3 Intellectual Property (IP) Journal of the PTDLA, 1, 12 (2003).

²³ U.S. Patent No. 204,189 (filed Feb. 16, 1878) and U.S. Patent No. 208,509 (filed Apr. 22, 1878), respectively. U.S. Patent No. 204, 189 (filed Feb.

16, 1878), and titled "Improvement in Machines for Pitting and Cutting Fruit," and issued May 28, 1878 to Charles P. Bowen of Silver City. U.S. Pat.

No. 208,509 (filed Apr. 22, 1878), titled "Improvement in Amalgamators," and issued Oct. 1, 1878 to Charles P. Bowen of Silver City.

²⁴ U.S. Patent No. 204,189 p. 3 (filed Feb. 16, 1878).

²⁵ U.S. Patent No. 208,509 p. 2 (filed Apr. 22, 1878).

²⁶ U.S. Patent No. 219,161 (filed Jun. 16, 1879), titled "Improvement in Balance Slide Valves," and issued Sep. 2, 1879 to David B. Kimmel of Idaho City.

²⁷ U.S. Patent No. 219,161 p. 2 (filed Jun. 16, 1879).

²⁸ Idaho State Historical Reference Series No. 335, 1971.

²⁹ Idaho State Historical Reference Series No. 335, 1971. The largest of Idaho's original 1864 set of counties, Oneida had "everything necessary for a successful government operation except population."

³⁰ U.S. Patent No. 219,200 p. 2 (filed Jul. 23, 1879).