An X-Radium Mystery:  
F. H. Griswold's  
Patented Cooking Ware

By

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Introduction

Although thirty some new elements have been discovered since Marie and Pierre Curie first isolated the element in 1898, none, with the possible exception of uranium (discovered more than 100 years earlier), has quite captured the imagination of the public to such a degree as radium. Partly due to the mysterious qualities of unseen x-rays and the mysteries of light, the public’s fascination was also due to the putative curative properties of radium, an aspect that business entrepreneurs were quick to latch onto as an advertising windfall.
Early Applications of “Radium Branding”

By 1904 an artificial silk invented in Lyon, France, was named “radium” because of its sheen, and “Radium Silk” neckties were being advertised in the Lima, Ohio, *Times-Democrat* (June 2, 1904). To be clear, radium silk is still in use and has nothing to do with the radioactive element. However, as early as 1904 various hot springs were being touted as containing the newly discovered “curative agent,” radium. The popularity of radium as a healthful additive to drinking water would reach its peak during the 1920s and 1930s but already The Radios Co. of Philadelphia was describing the rare metal as “the greatest remedy that God has ever given to suffering humanity” and claiming that their product had already cured thousands (*Reno Evening Gazette*, February 24, 1904).
On April 2, 1904, the musical “Piff Paff Pouf” opened on Broadway, featuring the Radium Dance composed by one Jean Schwartz. Undoubtedly more artistic was the “Dance of Radium” developed by famous danseuse Loie Fuller, who even tried to obtain a sample of radium from the Curies to feature in her popular dance (Garelick 2007: 53). By New Year’s Day, 1905, Piff Paff Pouf was playing in Washington, D. C., featuring Schwartz’s Radium Dance (Washington Post, December 25, 1904) and by 1909 Marion, Ohio, enthusiasts could view “a revised edition of the radium dance, or the devil’s dance as its latest title goes,” the dance requiring a full corps of experienced stage electricians to handle the electrical effects (Marion Daily Star, March 4, 1909).

More substantively, as early as 1900, at the suggestion of Dr. William Rollins, Dr. Francis H. Williams of Boston attempted to use radium salts therapeutically, but the material was too weak to
be efficacious. By 1903 Williams was able to obtain a sample of radium bromide from Europe and started a radium clinic at Boston City Hospital (Chase 1921: 767). Chase’s bibliography lists numerous popular and scientific articles suggesting or even reporting on the therapeutic use of radium as early as 1900 (Rollins 1900). In March, 1901, a Toledo, Ohio, company was incorporated to manufacture X-Ray medical equipment (Secretary of State Corporation Papers 84: 352), but these plans appear to have been aborted when the only doctor among the incorporators, 36-year-old Robert H. Timpany, died of pneumonia in June of that year (Journal of the American Medical Association (36:1798)).

In Cleveland, Ohio, the X-Ray Specialty Co. was incorporated June 3, 1903, to engage in the “manufacturing, buying and selling and dealing in machinery, appliances, and specialties connected with or relating to x-rays and also electrical and
other machinery and devices of all kinds and doing all things incident to the foregoing purposes.” If that seems a tad redundant and smacks of legalise, it may be because all five of the incorporators were Cleveland lawyers. Neither the Toledo nor the Cleveland firm got into production or for that matter even into their respective city directories.

There was also an X-Radium heater for keeping food warm, produced by the Novelty Manufacturing Co. of Jackson, Michigan, as advertised in ladies’ magazines of the period. Described as a “neat little stove” four by seven inches, it consisted of a base filled with X-Radium, “a chemical substance recently discovered possessing the same affinity for heat that a sponge has for water,” and a stamped steel dish with an asbestos mat in the bottom. This (presumably) radioactive chafing dish could be
had for only $2.50 east of the Missouri River (Munsey’s Magazine and The Ladies’ World, March 1904). It was also advertised in McClure’s Magazine (November, 1903) as making the best foot-warmer and taking the place of the hot-water bottle! This appears to be the earliest use of the term “X-Radium” for advertising purposes.

Not to be outdone, someone in Cincinnati, Ohio, registered a print advertising “Housekeepers X-Radium Cooking Utensils,” filed February 2, 1905, with the U. S. Patent Office (Official Gazette v. 114, p. 2379). Unfortunately, there is no trace of this company, the X-Radium Cooking Utensil Co., in the Ohio corporation records or the Cincinnati city directories of the period, so we cannot tell from the print who may have been involved in this enterprise. An inquiry
X-Radium Heater

The Biggest Little Thing on Earth.

The X-Radium Heater gives heat without flickering light. Made of stamped steel, nickel and polished to silver finish.

Keeps the coffee, soup, vegetables, puddings and pantry hot. Ideal for serving with cold lunches and cold dinners. Keeps the sandwiches hot. Makes the best hot-water mill and the place of the hot-water bottle. Because it is non-conductive and non-inflammable, it becomes the immediate necessity in every home.

FREE TRIAL

The dealer is authorized to return your money if you are not satisfied with the X-Radium Heater after trying it for ten days. If the dealer cannot supply you, send order direct to us, enclosing $1.00, and we will see that you get one promptly with the same guarantee of satisfaction or money back. Order direct through the dealer or address

NOVELTY MFG. CO.,
Dept. A, Jackson, Mich., U.S.A.

(McClures November 1903)
X-Radium Heater

A little marvel of comfort and economy wanted in every home

The X-Radium Heater is, in reality, a neat little stove, four inches high and seven inches in diameter, gives heat without consuming fuel. Made in two parts: first, a heating pad of stamped steel filled with X-Radium (a chemical substance recently discovered possessing the same affinity for heat that a sponge has for water); second, a stamped steel bowl-shaped stand with asbestos mat in the bottom, into which the pad is placed after being heated. Finely finished, polished and heavily nickel-plated.

No extra cost in heating the X-Radium Heater. Set the pad on the stove or range (coal, wood, gas, gasoline or oil), and in twenty minutes it will be hot and keep hot for two hours. Keeps the coffee, soup, vegetables, meat and pastry hot, keeps the flat-irons hot, keeps anything hot. Takes the place of the hot water bag and is the greatest foot warmer on earth. Will last a lifetime. It is everybody’s necessity and everybody can have it. Price only $2.50 (East of Missouri River).

Our Free Trial Offer.—Order the X-Radium Heater through your local dealer. We will send it to him, transportation prepaid, and instruct him to allow you to try it for ten days. If satisfactory pay him $2.50. If you are not satisfied, return it to the dealer. You have no risk in the matter. This trial offer shows our confidence in the merits of the X-Radium Heater. So please have no hesitation in taking advantage of it.

Novelty Manufacturing Company, Department B.
JACKSON, MICHIGAN, U. S. A.

(Munsey's Magazine) (March 1904)
made of the Library of Congress did lead to the
discovery of the original print or broadsheet pasted
in a scrapbook or letter book filled with such
prints. The print covers two approximately 8 1/2
by 11” sheets. I am particularly grateful to
Margaret Clifton, Librarian, Science Reference
Services at the Library of Congress for the
considerable effort it took to locate this broadside,
which is illustrated on page 11.

An advertisement for X-Ray Stove Polish has
also been found (Ladies World January 1904)
though, again, there is no evidence that radium or
other radioactive material was actually
incorporated in the product. Suffice it to say that
by the turn of the century and shortly after, radium
had captured the public’s fancy, with little thought
as to any potential harm that might be associated
with this rare element.
The Mystery of Who Made Them

U. S. Design Patent 37,205 was granted November 1, 1904, to Frederick H. Griswold, of Springfield, Massachusetts, for a “new, original, and ornamental Design for a Culinary Vessel.” Note that no medicinal value or other advantage was claimed for any such “culinary ware,” merely the ornamental design.

Even today the speed with which the discovery of radium was transformed into advertising gimmickry is remarkable. Chase (1921) conveniently details American references to radium prior to 1906. While these are relatively few, a number appear in the popular literature and might readily have been seen by Griswold. Newspapers were an additional source of information and misinformation about radium, so that there was ample opportunity for Griswold to learn of the material’s potential and adapt it to his needs.
It is evident from careful study of the X-Radium Cooking Utensil Co.'s broadside that their cooking ware incorporated Griswold's patented design. That the ware actually was manufactured, for a time is evidenced by the existence of at least three known examples of this specific design, two in the author's possession. A large, Bristol-glazed, bale-handled stoneware cooking pot closely matches Griswold's patent drawing and a third vessel is known with the same shape but with a sponged blue and white decoration that does much to obscure the impressed "X" design.

The base of the two available crocks is marked with the same elaborate "X" design (except as noted below, p. 34-35) surrounded in a circle with the phrase "X Radium Mineral Clay. Helpfully, the patent date is stenciled prominently on the rim of the 7-quart kettle, permitting no doubt that the object had been "PATENTED" and allowing us to identify F. H. Griswold as the patentee.
Seven-Quart X-Radium Kettle
“Patented November 1st, 1904”
Given the comparative rarity of these cooking vessels, it was a surprise to find the design patent applied to a second style of stoneware kitchen ware, in this case a light-blue mixing bowl or milk crock with the same “X” (actually a saltire style cross) design and patent date on the base. To date, only one example of this particular style has been seen. The rarity of these vessels could be due to one or both of two obvious possibilities: they may not have been made for a very long period of time and/or they may simply not have been popular.
Although an “X” clearly was intended, use of the saltire cross is somewhat ironic, since the symbol is now used in Europe as a standard sign for harmful or irritant chemicals. This leads of course to the immediate question of whether any
radium was actually introduced in the clay used to manufacture this cooking ware. (It is highly unlikely to have been a natural constituent of the fireclay.) Happily, simple testing with a Geiger counter by Dale Gnidovec, curator of the Orton Geological Museum at Ohio State University, revealed only normal background radiation.

Unfortunately there is no indication on either style of cooking or mixing bowl as to who actually manufactured the stoneware vessels for Griswold, and this promised to be an unanswerable question, for no additional information on the X-Radium Cooking Utensil Co. of Cincinnati, could be found. (Note that the lower left corner of the broadside, where additional information on the company or at least its address was printed, was torn away before the broadside was mounted in the letterbook; consequently, the printed listing of this registered print in the Official Gazette is the only source providing the company’s name and location.)
Frederick H. Griswold

Census records provide some information about Frederick H. Griswold. In 1900 he was living with his widowed mother Frances and sister Goldie in Springfield, Massachusetts, occupation “Canvasser Household.” His parents were Harvey W. (1826-1898) and Francis E. Church Griswold (1842-1907), who reared a large farm family near Granville, which is now a suburb of Springfield, Massachusetts, where Frederick H. Griswold resided until his death in 1946.

By 1910, Griswold had become a “pottery and stoneware salesman,” and he had also been reunited with his wife of 17 years and their 14 year old daughter Bessie C. Griswold. Isabella Elliott had emigrated from Nova Scotia in 1892, shortly before her marriage to Frederick, but her whereabouts in 1900, as well as that of their
daughter, Bessie, remains unknown. By 1920 Frederick was in real estate, so it would appear that his stint as a pottery and stoneware salesman was relatively short, unless that 1900 reference to him as a canvasser of households included selling pottery. Very likely it does, for the registered print mentions “15 years’ practical experience in the mining, mixing, grinding, tempering, and manufacturing of clay products.” Possibly, however, it refers only to the experience of the manufacturer who made the cooking ware for Griswold, since it does not mention sales.

On the other hand, a full page advertisement for the A. E. Hull Pottery Co. appearing in Hillis (1909) includes a photograph of Griswold as vice-president of the firm and the information that he employed from twenty to thirty traveling salesman constantly and was one of the largest users of the company’s products. The advertisement also brags that “While the company was only organized in 1905, all of its officers have been

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engaged in the manufacture of Stoneware and Stoneware Specialties for twenty years or more...”. This certainly conforms with the fact that Griswold is listed in the 1910 census as a “pottery and stoneware salesman.”

Roberts (1992: 19) mentions that Guy Cooke served as Hull’s New York representative and “later” took over the position of vice president of the company and management of Hull’s eastern branch, “a vacancy left by F. H. Griswold.” Although Roberts provides no specific time frame, Brick and Clay Record (October 4, 1921, p. 515) reports that A. E. Hull and Guy Cooke, “manager of the New York offices,” were taking a “little vacation” in East Liverpool (!) while all the potters of the Crooksville district were on strike and refusing to accept a wage reduction. Griswold’s tenure can be narrowed a little further, as Cooke is listed as vice-president of the Hull Pottery in a 1917 catalogue of the University of Pennsylvania (from which he graduated in 1913).
Cooke is simply listed as manager of a pottery factory in the 1920 and 1930 censuses. Born in Crooksville in 1882, he was the son of a teamster but brother Herbert was a jigger and brother Fred was a glazier, while step-brother Ezra Brown was an “offbearer” in a local pottery. Guy Cooke served as an honorary pall bearer at A. E. Hull’s funeral (Zanesville Times Signal, September 3, 1930), by which time he was on the Board of Directors of the A. E. Hull Pottery Co. The Cookes moved back to Ohio in the 1930s and he left Hull Pottery for the Robinson Ransbottom Pottery a few years before his death in 1937 (Zanesville Times Signal, June 24, 1937).

In 1930 67 year old Frederick H. (1863-1946) and 69 year old Isabella J. Griswold (1861-1944) were living in Saugatown, Massachusetts, where, according to the federal census, he was a “real estate operator.” Presumably the term “operator” was not used in the pejorative sense it sometimes
is today. Daughter Bessie had married Russell B. Kennedy, a designer of electrical machinery, and lived next door.
Archaeological Evidence I

A very significant clue regarding the manufacture of Griswold’s “X-Radium” cooking ware was discovered by the author several years ago during routine surface survey of a small, mostly gravel-covered area adjacent to the abandoned Star Stoneware Plant No. 1 in Crooksville, Ohio (“S” on Map). Sherds of typical Star Stoneware products such as their rick-rack grape tankards, salt boxes, and mixing bowls were found along the east side of the railroad and at the point marked “X.” And most remarkably there were cobalt blue sherds bearing the X-Radium motif and the November 1, 1904, patent date.

The archaeological situation here is probably very complex and possibly contains a mixed assemblage, given the close proximity of the Star Stoneware Plant 1, located immediately northeast
Portion of U.S.G.S 7.5° Crooksville Quadrangle.  S = Star Pottery; X = X-Radium sherds; C = Crooksville Stoneware Co.; H = Hull Pottery Co.
Sherds from Location “X”
of the find spot; the Crooksville Stoneware Co., which was located immediately across (south of) Industrial Drive; and the Hull Pottery Co. further to the southeast. Sherds from all three establishments could conceivably co-occur here, particularly in surface collections, given the disturbe nature of the site and its adjacency to both the highway and the railroad but so far the only identifiable sherds represent Star Stoneware.

Proximity to the actual plant sites would suggest the X-Radium sherds derived from either the Star Stoneware or the Crooksville Stoneware plant. Unfortunately, virtually nothing is known regarding the Crooksville Stoneware Co. in terms of the specific wares manufactured there. Star and Hull products are much better known from both the contemporary literature and more recent collectors’ efforts, but some of their shapes and motives are very similar.
An additional complication revolves around the ubiquitous role of the Hull family in the history of these Crooksville potteries. The Star Stoneware Co. was formed in 1892 and stockholders included J. J., J. S., and A. E. Hull. J. J. Hull continued as general manager until his death in 1924 at which time he held the controlling interest in the company (Crooks 1945: 29). In 1901, W. A. Watts organized another stoneware pottery known as Globe Stoneware, and A. E. Hull became the general manager of it. In 1905 Watts and Hull withdrew and began the A. E. Hull Pottery Co., with Hull president and general manager of what was formerly the Acme Pottery Co. (a semi-porcelain dinnerware firm). The new stoneware company was soon joined by J. J. Hull (who had been president of the Acme company), Floyd Hull, and others, including F. H. Griswold (Clay Record v. 27 no 2, July 31 1905).
The Globe Stoneware plant burned to the ground in 1906 but was rebuilt and eventually became the Watt Pottery in 1922 (Ibid: 33-34). The Crooksville Stoneware Co., not to be confused with either the Crooksville Pottery Co. or the Crooksville China Co., was organized in 1890 and by 1894 the plant was employing 25 men; eventually it was absorbed by Star Stoneware (Crooks 1933).

The blue milk crock or baking crock represented by the sherds is a version of a relatively rare “clothespin” motif, as illustrated by Taylor, Lowrance and Lowrance (1997: 156). While their example is Bristol-glazed (with cobalt blue interior) and the striking “clothespin” pattern is the reverse of that found on the X-Radium sherds, the presence of an impressed star mark and the distinctive ribbed border along the base leave no doubt that both this form and Griswold’s X-radium milk crock were produced by the Star Pottery.
Star Stoneware “Clothespin” Milk Crock
(Courtesy Taylor, Lowrance & Lowrance 1997)

Whether Griswold’s association with Star Stoneware directly led to his association with Hull Pottery remains unclear but it appears to be more
than coincidence that Star Stoneware was producing goods for him ca. 1905, when the Hull Pottery was founded. It might be expected that the A. E. Hull Pottery later produced wares for Griswold's sales agency, but there is no evidence of this, despite assiduous attention given Hull pottery in the collectors' literature. In fact, there is no additional evidence linking Griswold with Hull.

Archaeological Evidence II

The J. W. McCoy Pottery Co. was established in Roseville, Ohio, a few miles north of Crooksville, in late 1899 but suffered a disastrous fire in April, 1903. Rebuilding was not finished until February, 1905, and the firm continued until 1911 when it became the Brush-McCoy Pottery and turned more toward artware. J. W. McCoy died in 1914 and the Brush-McCoy Pottery eventually became the Brush Pottery (1925), which ceased operations in 1982 (Murphy 1999).
The Brush Pottery building burned to the ground in July, 1999, exposing abundant pottery waster material spilling out of cracks in a retaining wall or foundation along the west side of the building. Much more waster material was exposed with the removal of the concrete flooring and the remaining ruins of the Brush Pottery building last fall. Unfortunately, no archaeological survey of the property was directly required by federal law nor by the EPA in connection with hazardous waste removal at the site; although the EPA is mandated to comply with the National Historic Preservation Act, it has a history of non-compliance. Further, when Roseville administration (Heidi Milner, fiscal officer) was approached about the possibility of obtaining a sample of sherds lying on the surface, permission was denied on the grounds that the property had already been advertised for sale so that nothing could be removed from it. Subsequently, Ms. Milner reported that there was
nothing under the concrete flooring of the pottery when it was removed in preparation for the hazardous waste removal.

On a visit to Roseville in the fall of 2010, the author noticed that numerous pieces of Brush pottery and kiln furniture had been lined up along the southern edge of the property, making it evident that Ms. Milner’s assessment of the archaeological potential of the site was wide of the mark. This was also evidenced by abundant pottery sherds scattered over the entire site. As several Roseville residents were walking over the site and examining the abundant sherds exposed by removal of the concrete floor and as they seemed neither aware of nor interested in any strictures on examining the site, the author joined them and was able to collect a small “grab sample” of sherds. Because the later output of the Brush-McCoy and Brush potteries are relatively well documented by contemporary catalogs and

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more recent collector-type books, sherds presumed to represent the earlier Brush and the J. W. McCoy Pottery Co. were of the most interest.

Of these, some of the most abundant recognizable sherds were of McCoy’s distinctive Bohemian cooking ware. More surprising were a few rare earthenware sherds impressed “Dutch Ware,” sufficient to establish the identity of this ca. 1908-1911 McCoy line of cooking ware (Murphy 2011).

Most surprising of all were several cobalt blue sherds bearing Griswold’s patent X-Radium design. The design on these sherds is slightly different than that found on the Crooksville sherds but precisely matches that on the bowl illustrated in Griswold’s patent and nearly matches the design on the white, Bristol-glazed bowl illustrated on pp. 14 and 15. (It may be noted that
the one complete example of an X-Radium kettle actually bears a slightly fancier Cross Clechy rather than an X with serifs. It is remotely possible that this slight difference indicates that
vessels decorated with the Cross Clechy were made by a third pottery (Hull, perhaps?) and the fact remains we do not have a complete example precisely matching the seriffed X on the sherds from the McCoy Pottery site. This lacuna underscores the unfortunate fact that a larger archaeological sample could not be obtained from the McCoy site, for sherds identical to the blue and white “Clechy” bowl might have been found. In short, discovery of the sherds at the J. W. McCoy site leaves no doubt that McCoy manufactured X-Radium cooking ware for Griswold sometime after completion of the new plant in 1905 and no later than 1911 when the plant ended production. It is most likely that these included the pieces illustrated on the Cincinnati broadside as well as pieces with the Cross Clechy motif, but this is not known beyond the shadow of a doubt, since sherds with the Cross Clechy “X” have not been found at either pottery site.

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Sauce Pan, Two-Quart Baking Dish, 4- and 7-Quart Kettles Attributed to J.W. McCoy Pottery
(Library of Congress, Prints and Photographs Division PR 06 CN 664, Ser. A, Vol. 22; courtesy of Margaret Clifton)
Conclusion

Of the two available complete examples of X-Radium cooking ware, the light blue “clothes-pin” style milk crock precisely matches the sherds from the Star Pottery No. 1 site and were undoubtedly made there. The dark blue sherds from the J. W. McCoy plant appear to match precisely both Griswold’s patent drawing and the Cincinnati X-Radium broadside illustrations. As the complete blue and white seven-quart kettle also matches the Cincinnati X-Radium drawings except for the slightly more stylized X or Cross Clechy and bears the same patent date, it must also have been manufactured for Griswold and most closely matches sherds from the McCoy pottery.

Stylistically, however, it is logical to think that the “Clechy” kettle might have been manufactured later, after the Star Pottery version and even after the Cincinnati X-Radium broadside, possibly even
after the A. E. Hull Pottery was formed. Lacking more precise documentary and/or archaeological evidence, it remains possible that the “Clechy” kettle was manufactured by Hull, particularly if Griswold continued his cooking ware business as late as the 1910 census indicates.

It remains unknown why Griswold’s patent cooking ware was made by two (or more) different potteries or for that matter which style was made first, although those attributed to Star Stoneware do more closely match Griswold’s original design. Perhaps he got a better financial deal at one pottery or the other; certainly it makes sense that Hull would produce them as economically as possible for a company vice-president, if Griswold continued to sell them after he joined Hull. Without additional information, which is not likely to be forthcoming, the answers to such question will remain unknown.
Acknowledgements

As a retired librarian, I especially appreciate the diligence that Margaret Clifton, Science Reference Librarian at the Library of Congress, exhibited in tracking down the present location of the X-Radium broadside and helping me acquire a copy for this publication. I am also grateful to Kay Lowrance, Roxboro, North Caroline, for her interest in the topic and for permission to include a photograph of the Star Pottery “clothespin” milk crock from the book authored by her, her late husband, Don Lowrance, and Terry Taylor. Dale Gnidovec, Orton Geology Library, Ohio State University, kindly checked the radioactivity of the X-Radium sherds for me. Finally, a word of thanks is due Kathy Lynch, editor of the Roseville Legend for continually encouraging my interest in Roseville history.
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