

THE TORCH

NEWSLETTER OF THE BLOW TORCH COLLECTORS ASSOCIATION
Issue #50 June 2011



Shown is an "ACME" Paint Burner made by the W. P. Pope Co. of Brooklyn, NY. The "ACME" design is based on a US patent issued to John A. Felt of Kent, OH on October 3, 1882, and as seen in the background.

An entry in the 1885 *History of Portage County, Ohio* suggested that the inventor may also have manufactured the "ACME" paint burner as well.

From the collection of Ron Carr.





NOTES FROM ALL OVER



Al Austin sent in some interesting information on the M.W. Dunton Co., maker of NOKORODE soldering paste. He spends a lot of time at garage sales, flea markets, and the like, and came across a tin of the NOKORODE soldering paste along with detailed soldering instructions. Included was a June 3, 1918 letter describing how the soldering paste saved the day.

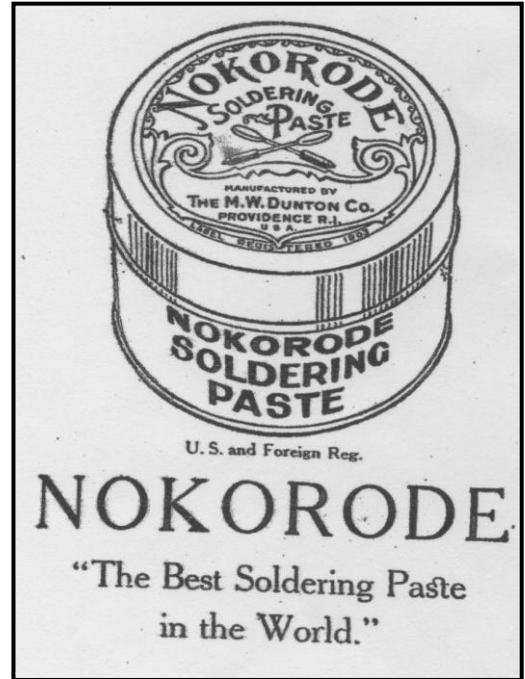
The letter below was written by an official from the City of Providence, RI.

Dear Sirs:

The solder kit which I obtained from you a few days ago has already come in very handy. The ball in the lavatory had rusted through so that a hole the size of my thumb was allowing it to fill with water instead of remaining buoyant. Although I had never done any soldering before, I thought I would make an attempt at it with the help of your directions. It was rather a difficult job, I think, but in half an hour, and with the help of a piece of a coffee can, I had cemented a patch on the ball and tested it out thoroughly. It has been working satisfactorily ever since and I am sure that the same work done by a plumber would have cost me two or three dollars. The solder kit has paid for itself three times over if I should never use it again.

Back in the early 1900s people actually repaired everyday items rather than dispose of them like we do today!

If you search the Internet you will find that the Dunton Co. specialized in soldering related products and was a family business for nearly 100 years. They were taken over and merged into the Rector Seal Co in 1998.




easier 3-minute way for men: FITCH
Men, get rid of embarrassing dandruff easy as 1-2-3 with FITCH! In just 3 minutes (one rubbing, one lathering, one rinsing), every trace of dandruff, grime, gummy old hair tonic goes down the drain! Your hair looks handsomer, healthier. Your scalp feels so refreshed. Use FITCH Dandruff Remover SHAMPOO every week for positive dandruff control. Keep your hair and scalp really clean, dandruff-free!



FITCH
LEADING MAN'S
SHAMPOO

Charles Smith continues his quest to find blow torch related articles in every imaginable publication. He uncovered this cartoon in a September, 1962 issue of *Playboy Magazine* that advertises FITCH Shampoo. Charles, thank you for "struggling" through the *Playboy Magazine* to find the cartoon!

I would recommend that you search the Internet for FITCH SHAMPOO HISTORY. You will be amazed at the story of Mr. F.W. Fitch, the "Shampoo King" and the history of his company. It has nothing to do with blow torches, but it is a very interesting story.

Information from the June issue of *BLOWLAMP NEWS* that is published by **Ray Hyland** in the UK refers to a very successful meeting in Belgium recently that was hosted by **Marnik & Katy Van Insberghe** with over thirty members in attendance. BTCA is considering reviving our annual meeting somewhere in the Pacific NW in the fall of 2011...see related article on page four.

You are looking at a photo of **Jon Suta** removing seventy years of flooring from his dining room floor. It appears that Jon is using a Turner Brass Works T-15C blow torch that was made circa 1966. He indicated that the torch was working great and doing its job.

Jon & Judy plan to refinish the floors in two rooms assuming Jon does not burn the house down!

Comments from **Gary Fye**: Ron, I feel impressed to write two things:

I am consistently impressed and pleased by the outstanding job our editor and friends do with *The Torch*. It is a bright spot in my day when I receive it. The recent colorful cover is suitable for framing! Many thanks for a job well done. **Gary T. Fye** of Reno, Nevada.



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 **SUPPORT-A-LIBRARY PROGRAM** 

Since we've had good success with this program, we've decided to extend it for another three months. BTCA will supplement a portion of the cost of any *More Vintage Blowtorches* book that you would like to donate to any library. The cost per book for any US library is \$15, for any Canadian library is \$25 USD, and for the rest of the world is \$27 USD.

Our first book, *Vintage Blowtorches*, is also available for the same Support-A-Library Program. The cost per book for any US library is \$32, or any Canadian library is \$45 USD, and all other locations would be \$60 USD.

Here's how the program works. You identify your library of choice, and then send us payment and the name and address of the library. We will mark inside the front cover that the book was donated by you. We will then ship the book directly to the selected library along with a letter identifying you as the sole donor. In most cases the library will send you a letter of thanks.

Here is your chance to support a library. Don't have a library...not to worry. We have a few US libraries that specialize in antique tools and they would be very pleased to have such a donation. You can send your payment payable to BTCA and information to our BTCA, 6908 April Wind Avenue, Las Vegas, NV 89131. To make it easier for you, we also accept payment through PayPal...just make payment to our account: BTCA@COX.NET. Be sure to identify the payment as "Support-A-Library Program".



A MAN AND HIS DREAM

By Charles Smith

Meet BTCA member **Theodore (Ted) Maire**. Ted and his wife Rose live in Glen Rock, NJ; a small community located about 20 miles north of New York City. Ted was involved in the Vietnam War and admits that to maintain some sense of sanity, he would often dream of acquiring and restoring an old car when he returned home. Soon after his arrival back home in 1967, Rose spotted a dilapidated 1940 Ford. The vehicle was purchased and restoration work began. Hundreds of hours later, the Ford Deluxe Opera Coupe has been completely refinished and returned to its original condition.



During his work on the Ford, Ted spotted his first blowtorch, a Schaefer & Beyer auto torch. It too needed some care and cleaning, and that began his fascination with torches. A few of his prized auto torches are shown with his Ford. Not shown is another of Ted's interests, antique trunks. Congratulations on fulfilling one of your dreams!



BTCA 2011 CONVENTION/MEETING

There is some interest in having a BTCA meeting in the fall of this year somewhere in the Pacific NW. We've selected that area due to the high number of BTCA members that are within a reasonable driving distance. We're looking for a volunteer to host the event for the September/October time frame. We would also need to hear from members that would be willing to attend the function. Please...email to BTCA@cox.net or write to us regarding your interest in hosting or attending. We cannot have a function without a host or attendees...so please...let us hear from you.

SOLDERING IRONS


By Graham Stubbs

In thirty years of collecting blowtorches, I've accumulated about ninety soldering irons that I never set out to collect. With a few exceptions they just came with the blowtorches that I purchased. Having put so much work into categorizing torches for the BTCA books *Vintage Blowtorches* and *More Vintage Blowtorches*, it seemed timely to try to make some sense out of soldering irons; after all, many torches and firepots were used to heat the irons.

"Soldering copper" was the term frequently used historically for the pointed or wedge shaped piece of copper, often referred to as the "copper bit", mounted on an iron rod and used for indirectly heating parts that were to be soldered together. The purpose of the soldering iron is to heat parts that are to be joined together to a temperature hotter than the melting point of solder, and to allow surface tension to take care of distributing the required film of solder between the surfaces. Until about 1910, another commonly used term for the copper bit was "soldering, or solder, bolt". For the purpose of this article we'll use these terms for the three parts of a soldering iron: the copper bit; the shank, a connecting piece to which the tip is connected; and some form of handle. The handle was sometimes sold separately from the rest of the soldering iron.

These extracts from early trade catalogs illustrate commonly found examples of these variations and terms or the names applied to them. As indicated in these illustrations, the larger soldering irons were generally sold in sizes measured by weight (of copper) per pair, ranging from ½ pound up to 12 pounds, and were stamped with the weight **per pair**. The smaller irons in Fig. 3 ranged from ⅞ ounce to 5½ ounces each.

(In the next issue of *The Torch*, we'll cover the makers / sellers, and patented soldering irons.)



"PITTSBURGH" SHAPE.
Plate No. E478.

**BURKES' STANDARD
PLUMBERS'
SOLDERING COPPERS**


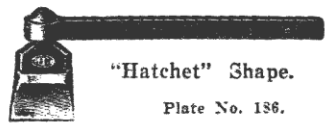


Plate No. 187.
Regular Shape.



"Hatchet" Shape.
Plate No. 186.

Every one made of best quality solid drawn copper bolts, with steel shank. We stock the above shapes. The "Pittsburg" shape, "Hatchet" shape, and "Regular" shape.
Each shape is made in all weights, pounds per pair, sizes.

		Price List.					
Weight, Pounds, Per Pair		¾	1	1½	2	2½	3
Price, Either Shape, Per Pair		\$...	\$...	\$...	\$...	\$...	\$...
Weight, Pounds, Per Pair		4	5	6	8	10	12
Price, Either Shape, Per Pair		\$...	\$...	\$...	\$...	\$...	\$...

Soldering Coppers Heavier than Ten Pounds Per Pair Price, Per Pair \$...
Above prices do not include wood handles.

**"Regular"
Soldering
Copper
Handles**

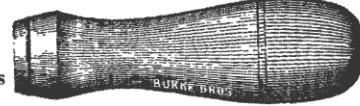


Plate No. 188.
Made of best clear soft white wood, with wire ferrule.
No. 1—As Illustrated—Price, Each --\$

Fig. 1 Soldering Irons: Pittsburgh, Regular Pointed, and Swivel-Hatchet Patterns
(Plumbers Supply Co. Catalog 1923)

SOLDERING COPPERS

POINTED PATTERN




Fig. 5595E

FLAT PATTERN




Fig. 5595F

ROOFING PATTERN

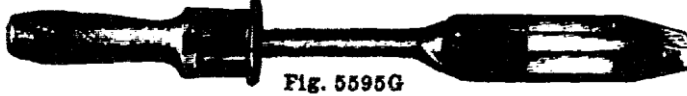


Fig. 5595G

SWIVEL HATCHET PATTERN

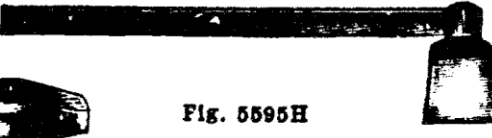
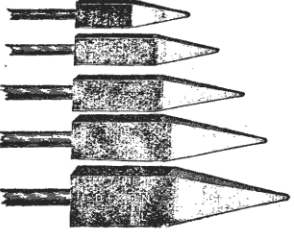


Fig. 5595H

Pointed, Weight per pair:	1, 1½, 2, 2½, 3, 4, 5, 6, 7, 8, 9, 10, 12 lbs.....	per lb.	.40
Flat,	" " 2, 3, 4, 5, 6, 7, 8.....	"	.40
Hatchet	" " 3 lbs. and heavier.	"	.50
Roofing or Tinnerns'	.....	"	.50

Fig. 2 Soldering Irons: Pointed, Flat or Chisel, Swivel-Hatchet & Roofing Patterns
(Cameron Barkley Catalog 1911)

SOLDERING COPPERS.

Fig. 4075	\$1.00 Dozen. .10 Each.	
Weight of Copper,	¾ oz.	
Fig. 4076	\$1.50 Dozen. .15 Each.	
Weight of Copper,	1 oz.	
Fig. 4077	\$2.00 Dozen. .20 Each.	
Weight of Copper,	1¼ ozs.	
Fig. 4078	\$2.50 Dozen. .25 Each.	
Weight of Copper,	3 ozs.	
Fig. 4079	\$3.00 Dozen. .30 Each.	
Weight of Copper,	5½ ozs.	

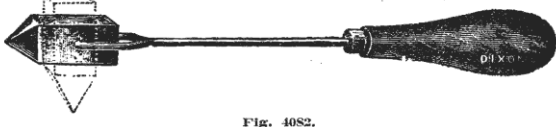


Fig. 4082.

ADJUSTABLE SOLDERING COPPER.
Each 25c.





Fig. 4080. "HEAVY COPPERS."


Weight, each	½	¾	1	1½	2	2½	3	4 Lbs.
Price,	.80	.20	.30	.40	.60	.80	1.00	1.20 1.60

Fig. 3 Soldering Irons: Rod, Adjustable, and Split Shanks
(Dixon Catalog 1909)

Soldering Coppers.



Pointed Pattern.



Swivel Hatchet Pattern.

Straight Pointed Pattern.

3 lbs. per pair and heavier	.....	6c. per lb. (base).	
2½ " " "	.....	1c. " add'l net.	
2 " " "	.....	2c. " "	
1½ " " "	.....	3c. " "	
1 " " "	.....	6c. " "	

Other Shapes.

Swivel Hatchet Pattern, 3 lbs. per pr. and heavier	5½c. "	
Boston (Curved Handle), " " " "	5½c. "	
Pittsburg Pattern, " " " "	3 c. "	

Fig. 4 Soldering Irons: Rod, Pointed, Swivel-Hatchet, Boston, and Pittsburgh Styles
(Bernz Catalog 1910)

Soldering irons can be categorized as to:

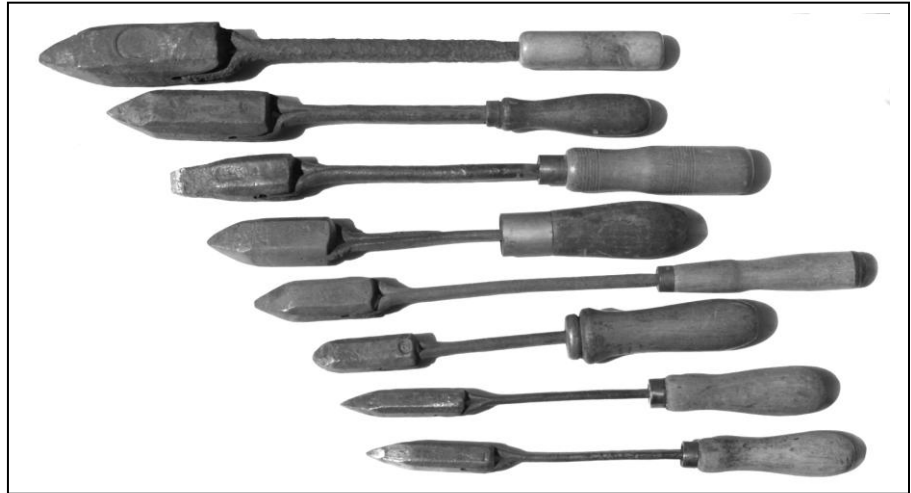
- Orientation (straight or at right-angle pattern) and the shape of the copper bit (pointed or hatchet)
- Method of securing the bit to the shank
- Construction of the shank
- Material and style of the handle

The photographs that follow show examples from the author's collection.

STRAIGHT PATTERNS

Split-shank, straight pointed copper bit

The iron shank is split to pass through a lateral hole in the copper bit and is swaged back to form a loop. From bottom to top, these irons are marked in pounds (per pair) 1, 1½, 2, 2½, 3, 4, 5, and 8. Copper bits with octagonal cross-section are the most common (See Figs. 1, 3, & 4). Square and circular cross-section bits are also commonly found.



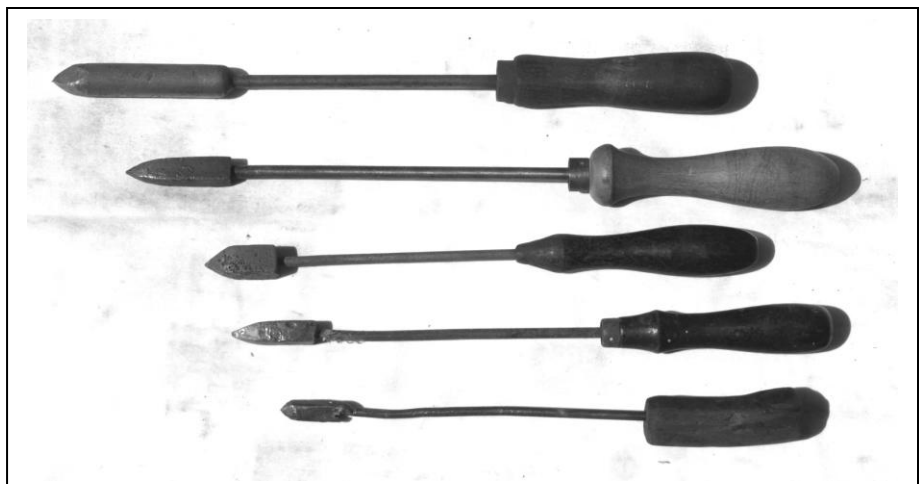
Rod-shank, straight pointed copper bit (larger size)

The shank, in the form of an iron rod, is pressed or threaded into the rear end of the copper bit (See Fig. 3).



Rod-shank, straight pointed copper bit (smaller size)

In the 1920s these smaller irons were often used with alcohol torches for home assembly and repair of radios (See Fig. 3).



Wire shank, wire handle

One end of the wire passes through a lateral hole in the copper bit and is looped back. A handle is formed from the other end of the wire.



Wire shank, wooden handle

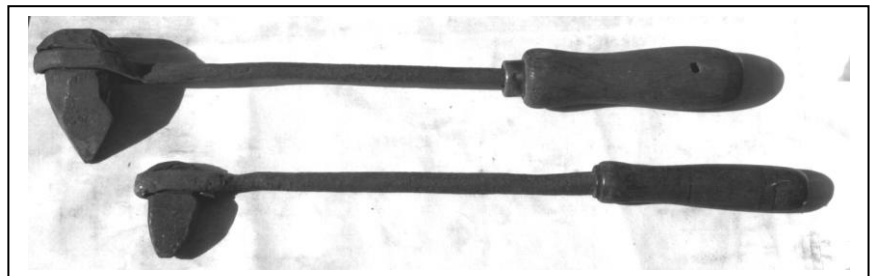
The wire passes through a lateral hole in the copper bit, and both ends are twisted together to form a shank, which is fitted into a wooden handle.



RIGHT-ANGLE PATTERNS

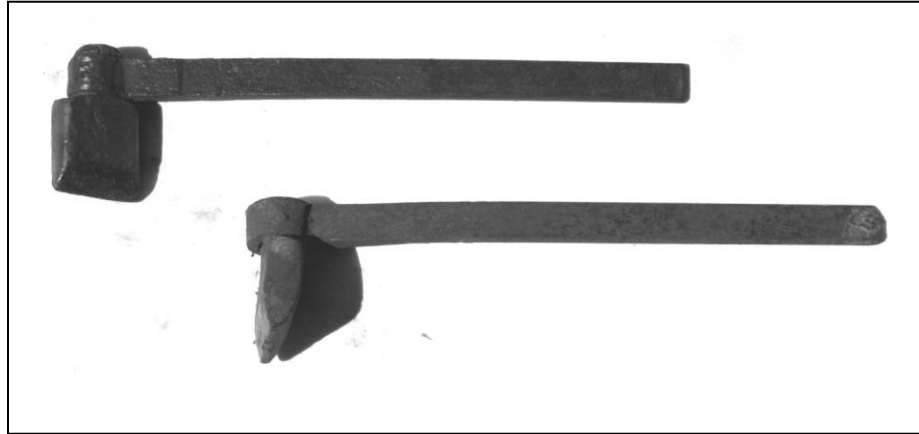
Pittsburgh Style, pointed tip

One end of the shank is formed into a loop to secure a pointed copper bit (See Fig.1).



Swivel-Hatchet tip, flat metal handle

The lower end of the copper tip is chisel shaped for soldering along a seam. The upper end of the bit is round, permitting it to swivel within a loop formed in the shank (See Figs. 1, 2, & 4). The handle is a flat metal extension of the shank, and is sometimes seen forced into a wooden handle extension.



Swivel-Hatchet tip, "Boston-Style" handle

The copper tip of the "Boston-style" soldering iron also swivels (See Fig. 4). The shank is curved back to form the handle, often with an acorn-like tip.



Hatchet tip, wooden handle

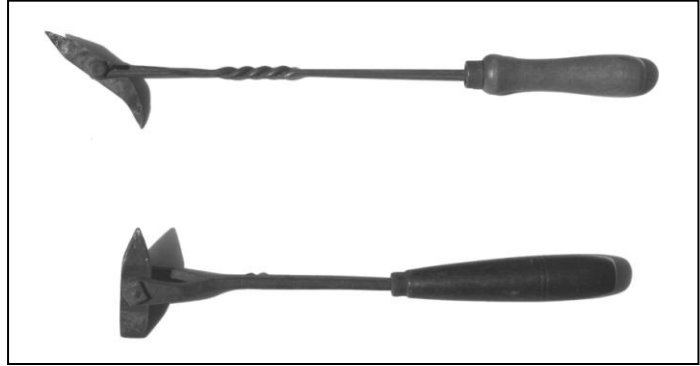
The hatchet tip in these soldering irons is fixed in position. In the example at the top, the tip is secured by passing the shank through one hole in the copper bit and back through a second hole. The other examples have the shank secured directly into the copper bit.



OTHER VARIATIONS

Adjustable, swivel tip

Each of these two irons has a copper bit that can be swiveled to present either of two tips to the surface being soldered. The upper example has a straight pointed tip and a curved pointed tip. The lower example has a pointed tip and a chisel tip (See Fig. 3).



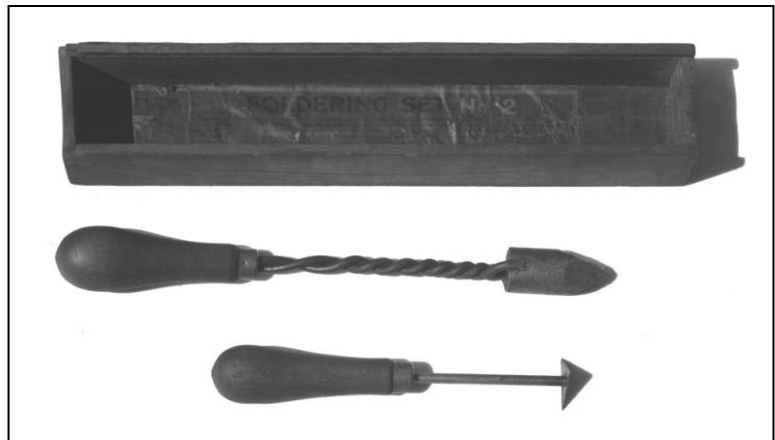
Roofing soldering iron

This large roofing soldering iron includes a protective wooden flange in the handle design (See Fig. 2).



Canning set

The canning set, made by Millers Falls, includes a scraper and a straight-pointed soldering iron.



BRITISH-STYLE SOLDERING IRONS




Fig. T1590
Straight Pattern.




Fig. T1591
Hatchet Pattern.

Weight of Copper Bit stamped on each Bit. Square Bits supplied as illustrated.

Copper Bits are made from Best Electrolytic Copper of guaranteed purity 99.9% Copper. Fitted with Polished Ferrule Handles.																		
Weight of Bit	..	..	..	2	3	4	6	8	10	12	14	16	18	20	24	28	32	oz.
Total Weight	..	..	..	4	6	8	9	12	15	18	21	24	27	30	36	42	48	..
Fig. T1590	Straight	..	PRICE	8 6	10 -	11 -	12 6	16 9	19 6	21 8	23 7	26 -	29 6	30 6	36 6	43 3	48/9	doz.
Fig. T1591	Hatchet	..	..	9, 9	10 4	14 6	16 -	17 9	21 -	22 6	25 3	27/9	30 -	34 -	41/6	45 -	58/6	..

Order by Weight of Bit (not Total Weight)

Fig. 5 British-Style Soldering Irons: Straight and Hatchet
(Buck & Hickman Catalog 1936)

British-Style straight pattern

The shank is split to fit either side of the wedge shaped rear end of the copper bit. The shank is secured to the bit with one or two rivets. The design is common in the UK. Soldering irons like these were also sold in the USA. The second tool from the bottom is marked "BERGER PHILADELPHIA" with the numeral 4.



British-style hatchet pattern

These irons are similar to the American "Pittsburgh" pattern, but with a chisel-shaped copper bit resembling a hatchet.

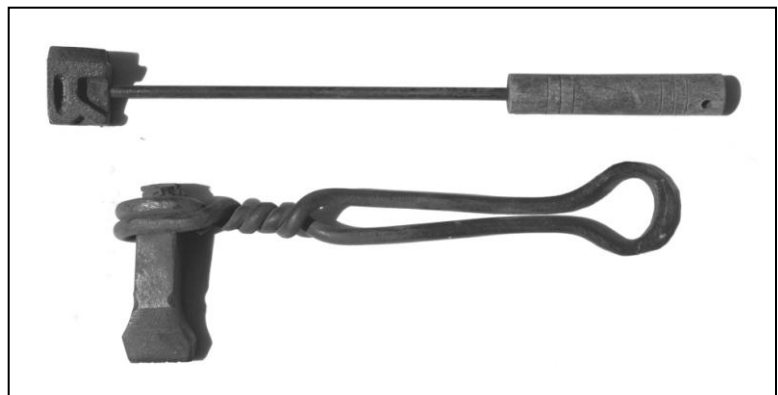


NOT SOLDERING IRONS

The items shown in these two photographs, while heated in the same way as a soldering iron, are definitely not for soldering.

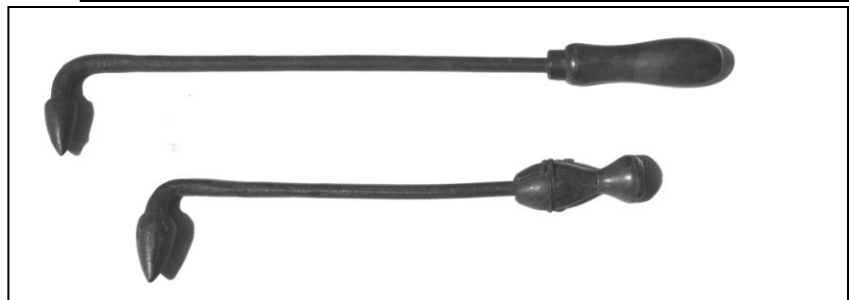
Branding irons

Cowboys were not the only people to use branding irons. A plumber probably used the lower one in this picture; it produces the mark "SEWER", and may have been applied to framing timbers adjacent to sewer lines.



Cauterizing irons

These tools have a rounded tip made of iron, not copper. Veterinarians used them to cauterize wounds and sores on large animals.



We are planning a follow-on to this article in the next issue of *The Torch*, and we are looking for more soldering iron information from you. Often there are identifying marks or information on the copper of the soldering iron. It is usually stamped into one side of the copper and could include a manufacturer's name and or a catalog number. If you have any soldering irons....please check for any information that we can use for the follow-on article. We are specifically looking for manufacturer's names and locations. Remember...there could be information under the dirt or corrosion...so use a bit of steel wool to bring it out. You can send the information to Graham Stubbs at GStubbs222@aol.com or BTCA@cox.net. Photos would be great if available. You can also mail information to Graham at his home address that is listed in your membership roster.



Making Castings for Blowtorch Restoration

How Lloyd Weber Does It

BTCA member **Lloyd Weber** is well known to readers of *The Torch* for his meticulous restoration of blowtorches. Lloyd was the subject of the first "IN THE SPOT TORCH LIGHT" interview in the December 2006 issue. Lloyd has an excellent eye for rare torches, and when he recently saw for sale an example of the copper-tank Quick Meal Paint Burner he couldn't resist it, even though it was missing an important part, the copper soldering iron (SI) rest that fits around tip of the burner tube. However, Lloyd was confident that he could create an exact replacement. He already had another complete example and he knew how to replicate the missing part.



On the left in this photograph is the Quick Meal torch before restoration, missing the SI rest that can be seen in the previously restored torch on the right.

The secret to his confidence in undertaking the task was in Lloyd's long career as a dentist. He had years of experience in preparing precisely fitted gold crowns and bridgework for dental patients. As Lloyd explains, "I have used a Korean man for all my crown & bridge casting for over twenty years. This is casting gold and other precious metals using the lost wax technique, the same method used by the Aztecs in early Mexico. I went to the web and found that copper melts at about 1985° F and gold at 1945° F, so the burn-out temperatures were about the same."

Lloyd first made an impression of the SI rest and created a wax replica. Lloyd explains how the process continues, "Then this impression is invested in a gypsum type product and is allowed to set-up." (Lloyd is referring to a process, called investment, in which the wax model is coated with layers of a slurry made from ceramic powder.) "This is then heated to about 1000° F to burn out the wax. The metal to be used is melted with a gas-acetylene torch. The ring with the mold is taken out of the oven, placed in the spinner that spins holding the molten metal and when the spinner is released the metal flies into the mold where the wax pattern had been burned out. I neglected to mention that before you invest the wax pattern, you attach some wax sprues to the pattern so the metal will have a path to get to the pattern. (A *sprue* is the passage through which a molten material is introduced into a mold.) After the casting stops spinning, it is removed and submerged in water to release it from the investment. You then cut off the sprues and trim and polish your casting." The final steps in preparing the SI rest required polishing the part, then drilling and tapping a hole for the retaining screw.



The results of Lloyd's casting efforts are seen in these following two photographs.



Lloyd was so pleased with the results, that he used the pair of restored Quick Meal Paint Burners for the Weber family's 2010 Christmas table centerpiece design.



OTTO BERNZ LITERATURE

By Graham Stubbs

Otto Bernz Company literature has been particularly difficult to find. Catalog supplements issued in 1936 refer to a "catalog No. 65", and a copy of the referenced 1936 catalog recently became available. The newly found document contains several items that we had not seen before, and thus are not in either *Vintage Blowtorches* or *More Vintage Blowtorches*. We should never give up on looking for "hard to find" literature!

Bernz No. 30 Torch

On page 55 of *Vintage Blowtorches* there is a photograph of a version of the Bernz No. 30 torch with a nozzle pointing straight up.

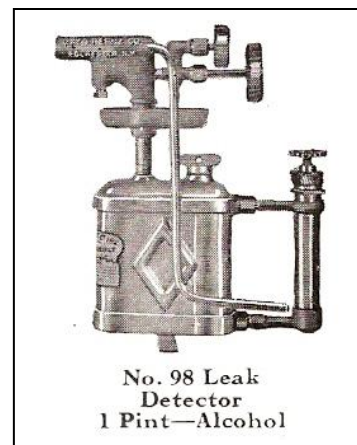
The 1936 catalog illustration at right shows the same torch with two nozzles, one for a large flame and one for a small pointed flame. There is also a holder for a spare nozzle.

Best (patented) *self-generating alcohol torch* made. Produces an *intense blue flame*. Burns when held at any angle. Furnished with two nozzles; one for large and one for small pointed flame. Equipped with removable burner block. Top of reservoir is concave and answers as priming cup. Vent screw to relieve and control pressure. Equipped with safety cap to prevent evaporation of fuel. Handle folds around reservoir out of way or can be used as stand. Torch has holder for spare nozzle. A necessity for electrical workers. *Most practical SELF-BLOWING alcohol torch marketed and no awkward candle flame preheating is necessary to keep the torch generating.*



Bernz No. 98 Leak Detector

A model number 98 refrigerant leak detector is shown on page 65 of *Vintage Blowtorches* with a round fuel tank. This 1936 catalog reveals an alternative version of the No. 98 leak detector with a flat tank, sometimes referred to as an auto torch. It is very similar to the photograph on page 38 of *More Vintage Blowtorches*.





Leak Detectors

NO. 98 LEAK DETECTOR—This gas leak detector was developed to detect leaks in connection with chlorinated hydrocarbon refrigerants, used in connection with electric refrigerators. For use with *alcohol* as a fuel. Burner especially designed for this purpose and so constructed that burner syphons air supply through rubber tube. When end of rubber tube is held near a leaky joint color of torch flame changes from blue to green. Convenient flat shaped tank makes detector easy to use in a crowded space. Equipped with patented "NEVER LEAK" pump in handle. Has extra valve to adjust size of flame besides supply valve. Brass syphon tube to burner furnished, to which rubber tube is attached. In use by largest manufacturers of electric refrigerators. Capacity 1 Pint. Net Weight $3\frac{3}{4}$ lbs.

Bernz Nos. 95 and 97 Sprayers

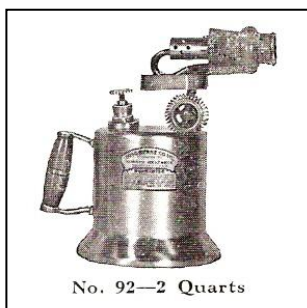
This listing in the 1936 catalog would suggest that the oiler shown on page 68 of *Vintage Blowtorches* is most likely an earlier version of the No. 97 "Stream Cleaner". The oiler shown on page 38 of *More Vintage Blowtorches* is evidently the Bernz No. 95 "Stream and Spray Cleaner". The No. 95 is illustrated with a spray plug to convert it from stream to spray.

 <p style="text-align: center; font-size: small;">No. 97 Sprayer 1 Quart</p>	<h3 style="margin: 0;">SPRAYERS</h3> <p style="font-size: x-small; margin: 0;">SPRAYERS FOR EXTERMINATING AND DISINFECTING COMPANIES, AUTO AND ELECTRIC MOTOR REPAIR MECHANICS, TELEPHONE AND PUBLIC UTILITY COMPANIES AND FOR SPRAYING FLOWERS</p>	 <p style="text-align: center; font-size: small;">No. 95 Sprayer 1 Quart</p>
<p>NO. 95 STREAM AND SPRAY CLEANER—This is a stream and spray cleaner of new and improved construction. Operates with one hand. Easily changed from stream to spray cleaner by screwing in spray plug at end of nozzle. Automatic shut-off when lever is released. Inclined (slant) handle furnished. Highly polished lacquered, seamless drawn brass tank, same as that furnished on famous "BERNZ" torches. Equipped with patented $\frac{7}{8}$" "NEVER LEAK" pump, plunger of which screws down and out of way and also acts as positive check so that machine can still be used if check valve should not function. All parts brass so as not to be affected by majority of fluids used. Capacity 1 Quart. Net Weight $2\frac{7}{8}$ lbs.</p> <p>NO. 97 STREAM CLEANER—Similar to the No. 95, except equipped with special bronze composition nozzle of simple construction and substantial valve for stream only. A very popular sprayer for many years. Pump and reservoir like No. 95 machine, described above. Both machines ideal for cleaning oil, grease, dust and dirt from intricate machines and electrical apparatus; and for exterminating bugs and insects. Capacity 1 Quart. Net Weight $2\frac{1}{2}$ lbs.</p>		

Bernz Nos. 92, 92B, and 92C Blowtorches

The half-gallon Bernz No. 92 blowtorch appears on page 65 of *Vintage Blowtorches*, along with the 3 and 5-gallon size Bernz No. 93 and 93C torches. The newly found catalog combines the burner from the No. 92 torch with the fuels tanks from the No. 93 series torches.

92	2-Qt.	Gas. or Ker.	<p>Heavy brass reservoir has a <i>capacity of two quarts</i>. Patented, seamless coil type steel burner with malleable nozzle produces a <i>large diameter intense flame about 18" long</i>. Carbonization reduced to a minimum. <i>Burns about 500 hours without requiring a cleaning</i>. Orifice in removable burner block cannot be enlarged. The entirely new style burner is simple in construction and can easily be taken apart. <i>Very compact</i>. Recommended for machine shops, foundries, repair shops, garages, industrial firms, public utilities, boiler shops and breweries, for <i>preheating, annealing, brazing, tempering hardening; and charring vats</i>. This powerful torch is <i>safe, economical and dependable</i>.</p>
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92B or 92C	3-Gal. or 5-Gal.	Gas. or Ker.	<p>Has same burner as the No. 92, except for reservoir, which can be furnished with <i>capacity of three or five gallons</i> and is made of strong copper bearing galvanized steel. Tank can also be furnished at slight extra cost of sheet brass. Six feet of 5-ply oil resisting extension hose is furnished. Shoulder strap makes it convenient to carry. <i>Powerful 2" pump</i> with all metal check valve. Especially valuable for <i>out of door work to municipalities and railroads for thawing out frozen switches, couplers, car wheels, pipe lines, valves and hydrants, for the melting of ice and snow, and for others requiring a large, long flame of intense heat</i>. For cut of tank see No. 93.</p>
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Even the Pink Panther knows how to operate a blow torch!!

CLASSIFIED ADS

FOR SALE: Andre LeFrancois has a few items he would like to sell, a new Kovopodnic torch made by Czechoslovakia, a Hanau dentist torch in mint condition, an Otto Bernz No. 23 torch, and a Springeeze Pressure oiler that was restored. See membership listing for Andre's contact information.

THE TORCH

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THE PURPOSE of BTCA is to preserve the history of blow torches and related equipment, to encourage the identification, classification, and exhibiting of such equipment, also to promote the study and better understanding of operation, purpose, and application.

Membership in BTCA is open to any person sharing its interests and purposes. For membership information, write to: Blow Torch Collectors Association, 6908 April Wind Avenue, Las Vegas, NV 89131-0119, email to: BTCA@cox.net, or by phone: 702 395-3114.

THE TORCH encourages contributions from anyone interested in our purpose. Articles can be submitted in any format and should include supportive literature whenever possible. All submittals should be sent to BTCA at the above address.

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