

Spanish Presidio Artillery

BY JOHN L. MORRIS



Figure 1. Photography by Justin Luckenbach.

My family is from California and Texas, which perhaps got us interested in the Spanish colonial period of our country. For about 50 years, we've collected Spanish light artillery of the type used in the Spanish presidios of the American Southwest. Presidios were small forts built to show occupation and protect Spain's territory in North America from other expansion-minded powers such as France. There were at least nine presidios spread among Arizona, California, Florida, and Texas. Some of the many Spanish missions were sometimes fortified, one notable example being the Alamo in San Antonio, Texas; however, nearby Presidio San Antonio de Bexar was built to provide full-time protection for the mission.

Presidio artillery tended to be lighter than that used by Spanish armies in Europe. This was because any enemy attacking the presidio would most likely bring only light, highly portable artillery due to those posts' isolation. The standard main armament of a presidio was a pair of four-pounder field guns known as "cañones de campaña." These guns, using round shot or grapeshot, could hold off a substantial force of native Americans or foreign troops if the gunners were proficient.

Smaller cannon, such as esmerils, mounted as swivel guns or on small four-wheeled garrison carriages, were provided for very short-range defense. Esmerils seemed to encompass guns of ½ to 1-pounder caliber. Two- and 3-pounders were called "pedreros," although there wasn't a clear line of demarcation. Light three-pounder bronze pedreros were known to have been in the presidios in substantial numbers. They were likely to have been mounted on light two-wheel carriages with dual trails which could be moved around by one man, similar to how one moves a wheelbarrow.

Today, we know much about the Spanish light artillery in the American deep south and southwest due to analysis of old Spanish military reports. James Woodruff, in his book *Texas Artillery Before 1835*, analyzed the old documents and summarized in tabular format what artillery was in various locations and when. I tend to use bore diameter instead of "pounder"

to describe these weapons, but I've put the approximate "pounder" equivalent in the data table. The family drafted me to write this article to make the information available to scholars and students of U.S. history before the collection is sold. They want the collection to stay together

Number 1, probably the best-looking piece, has a 2.5-inch bore and is a Spanish Navy piece designed in the 1790s. They referred to this and other small pieces of about 2 to 4 libra, or Spanish pound, caliber as "Pedrero." The gun, cast at the Royal Cannon Foundry of Seville in 1795, was apparently intended as a heavy swivel gun similar to the

Parque de Art. de la Ciudad de Bexar *Departam. de Texas*

Relacion que manifiesta las piezas de Artilleria que existen en el Parque de esta Ciudad y pertenencias a las fideicomisos con expresion de su Calibre, Estado, y Estado de uso en que se hallan.

Calibres	Cañones de bronce		Cañones de fierro		Totales
	Útiles	Útiles	Útiles	Útiles	
De a 7. L. Calibres	"	"	"	6.	6.
De a 6.	3	"	"	"	3
De a 5.	"	1	"	"	1
De a 4.	1	2	"	"	3
De a 3.	5	1	"	1	7
De a 2.	1	1	2	4	8
Totales	10	5	2	11	28

En Notas

1^a... Que un Cañon Calibre de a 6. existe montado en una Carroza de Campaña muy móvil.

2^a... Que tambien existen 122. Balas de bronce, fierro, y plomo de los Calibres de a 5. 4. 3. 2. 1. y 1/2. de las que se hallan en el Parque de Bexar.

Alcaldes de Bexar *Sept. 20. de 1830.*

Alonso Gutierrez *Com. Guardia Parque*

Figure 2: Sept. 20, 1830, Inventory of the Artillery Park for Bexar and La Bahia, Department of Texas (From Bexar County Archives, Austin, Texas.) For each caliber of gun in the left column, going to the right, the five columns are: 1. Bronze, Serviceable 2. Bronze, useless 3. Iron, serviceable 4. Iron, useless 5. Totals.

French Navy's 2-inch bore weapon. Its name, engraved in a banner behind the muzzle, is "Volante." It came from the late Hampton P. Howell Jr. of Charlottesville, Va., and Westhampton Beach, N.Y.

Hampton, a retired stockbroker, was a very interesting fellow, deeply interested in military history. I made dozens of trips to Charlottesville to visit and buy pieces of his fantastic collection of cannon models, acquired over the decades in the U.S. and Europe. After he showed me the beautifully gun, I worked hard negotiating to get it.

I fired this gun. Spanish bronze guns this size and larger have the exact day, month, and year of casting engraved on the base ring. An old ship's gun carriage fit Volante perfectly, so we fired it on his 213th birthday. Here's a video of the birthday celebration. <https://youtube/g7RKtpf6wbw>.

Numbers 2 and 7 are similar in shape, but no. 2 is a 1½-pounder esmeril that probably would have been mounted on a small field or "galloper" carriage like that shown in fig. 9. Cannon no. 7 was probably swivel-mounted.

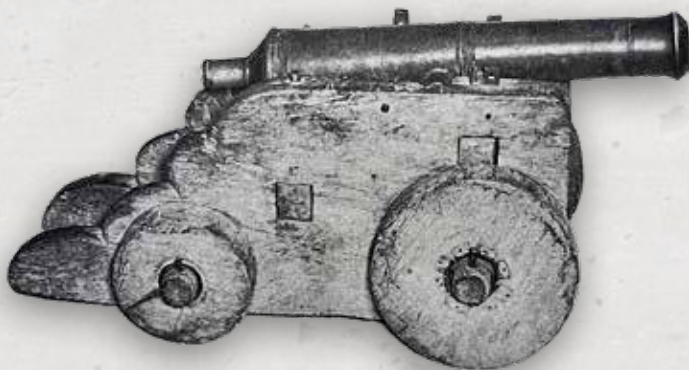


Figure 3: Not part of my collection, but from the Arizona State Museum, Tucson. Rare original garrison carriage with a typical tube having hollow cascabel. Other small cannon were provided with crude field carriages with trails dropping sharply from the cheeks. Occasionally, guns from 2- to 4-pounder were taken on expeditions against the natives. The tube shown here has bore of 2 3/8 inches and an overall length of 29 3/4 inches. This gun and carriage came from the Philippines. The tube is unmarked.



Figure 4: Gun no. 4 described in the text; initials AMG carved on tube. On massive "Fred Flintstone style" carriage with drawbar.

Number 3, one of the more unusual pieces, is the dark-red-brown esmiril made of copper with a 2.6-inch bore. It was most likely made in Mexico. It is one of two esmerils with the full Spanish Royal cypher on the breech. Spanish "Royal property" artillery pieces almost always have a large "R" on the breech, meaning "Real" [Spanish for "Royal"]. It has the tube-like cascabel found on most esmerils and smaller pedreros. The tiller the gunner used for aiming was usually a hardwood cylinder or tree branch a foot or so long, that fit tightly in the bronze tube-cascabel. The tube's weight was usually engraved just over the royal property mark. Weights for this small piece were expressed as "4@18&" meaning 4 Arrobas + 18 Libras, or $(4 \times 25) + 18 = 118$ libras.

Frank E. Bivins was a legendary antique gun collector who lived on Mango Way, overlooking Santa Monica, with a multi-million-dollar view. His collection was mostly in a large underground vault under his driveway. Frank, in his 80s then, seemed happy and talkative. He was selling off his guns at the time and buying decorative antique boxes, so I caught him at a good time. He'd been a successful builder, specializing in custom mansions for Hollywood stars he'd mention, like "Duggy Fairbanks." Theodore Dexter published a book entitled *Half-Century Scrapbook of Vari-type Firearms*, showing guns and cannon in the Bivins collection. During one visit there in 1983, I bought many fine cannon but ran out of funds before I could add this esmeril to my purchase. A friend bought it and mounted it near the ocean, but after it failed to turn to the blue-green color he liked, he sold it to me, and it remains one of my favorites. It is the only copper esmeril I've seen and one of only two I've seen bearing the full Spanish Royal cypher.

Number 4 has an interesting provenance, part of which I received in writing with the piece and part I discovered by accident 26 years later. After protecting the hallway in a residence for 70 years, the bore was checked for the first time. It was about half-full of serpentine black powder, with a foliage wad and langridge in front of it, all ready to kill!

I traded several collectible modern handguns to a descendant of Gen. F.D. Grant for a collection of war trophy items from the Philippine Insurrection, including esmeril no. 4 and thunder mug no. 13. The paperwork stated the cannon had been owned by Gen. F.D. Grant, who gave it to Elihu Root, then U.S. Secretary of War. It was kept at Elihu Root's cottage at Hamilton College, Clinton, N.Y. The barrel is very typical of Spanish esmerils marked as "Real" with "R" except for one puzzling feature, the large letters A.M.G. are engraved on the barrel, so they are read from the front of the gun, opposite to the traditional orientation of cannon markings.

I was always puzzled by those letters, but 26 years later, I was reading down a list of Philippine Insurrection trophies at West Point. I noticed a flag surrendered to Gen. F.D. Grant by insurgent Gen. Antonio M. Guevara in 1902. AMG! I then had to figure out how Gen. Guevara got the

cannon. Reading the only biography written on him, I learned he'd been in charge of gathering and inventorying all Spanish property abandoned by the Spaniards when they left the Philippines ca. 1899. I was surprised at getting all this information on the cannon with little effort, but it took decades for the pieces to come together. I was very fortunate to get the large, very heavy, tropical hardwood carriage with this gun. In fig. 4, you can see why we call this a "Fred Flintstone-style" carriage.

Numbers 6 and 14 are howitzers, 3- and 4-pounders, respectively, designed by the Spanish Navy about 1790, probably as swivel guns. They are chambered. I've seen both extensively marked and minimally marked examples, the latter having only a registry number on the end of a trunnion. I've fired another one identical to no. 6 and had no problems. Here's a video of the firing practice: <https://tinyurl.com/2ej7b8a8>. There are a few small Mexican War captured howitzers with original markings in Cullum Hall at West Point.

Number 5 is a mountain howitzer, 12 cm bore. Except for the difference in bore, trunnion diameter, and markings, it is identical to the U.S. M1835 12-pounder mountain howitzer.

Number 8 is the second "royal cypher-marked" esmeril we obtained. I bought it after begging the owner, Ray Geddes, for about 35 years. Ray had been a paratrooper and was seriously wounded D Day. Ray became a wholesaler in Baltimore and was very active in the antique gun-collecting community and the Maryland Arms Collector's Association.

He'd bought the cannon at the tag sale of Baltimorean Ernie Hoxter's massive militaria collection in the 1970's. He knew Ernie had received the cannon from famous arms collector and Army weapons expert Colonel James Jarrett, who, before his Army service, ran a military museum on

Steel Pier, N.J., where this cannon was displayed. I haven't a clue where Jarrett got it; maybe someday someone will come up with a catalog of that museum containing the provenance of this fascinating piece. I believe that esmerils with the full Spanish Royal cypher were made in Mexico. This light, 2.2-inch-bore gun would almost certainly have been mounted on a wrought-iron swivel "yoke" mount, resembling an oar lock from a boat, like the yoke on no. 12.

Number 10 has a West Point cast-brass museum tag, so before I bought it from Dick Hendrickson, I had a friend check its "legality" with a former West Point curator. That piece was part of some 300 tons of ordnance donated by West Point as scrap in WWII, so I bought it with a clear conscience. The scrap dealer realized he could get more money from a collector than from the foundry.

It is listed and pictured in the 1929 West Point Ordnance Museum catalog, page 207: "No. 7558, Fig. 269,



Number 5, mountain howitzer.

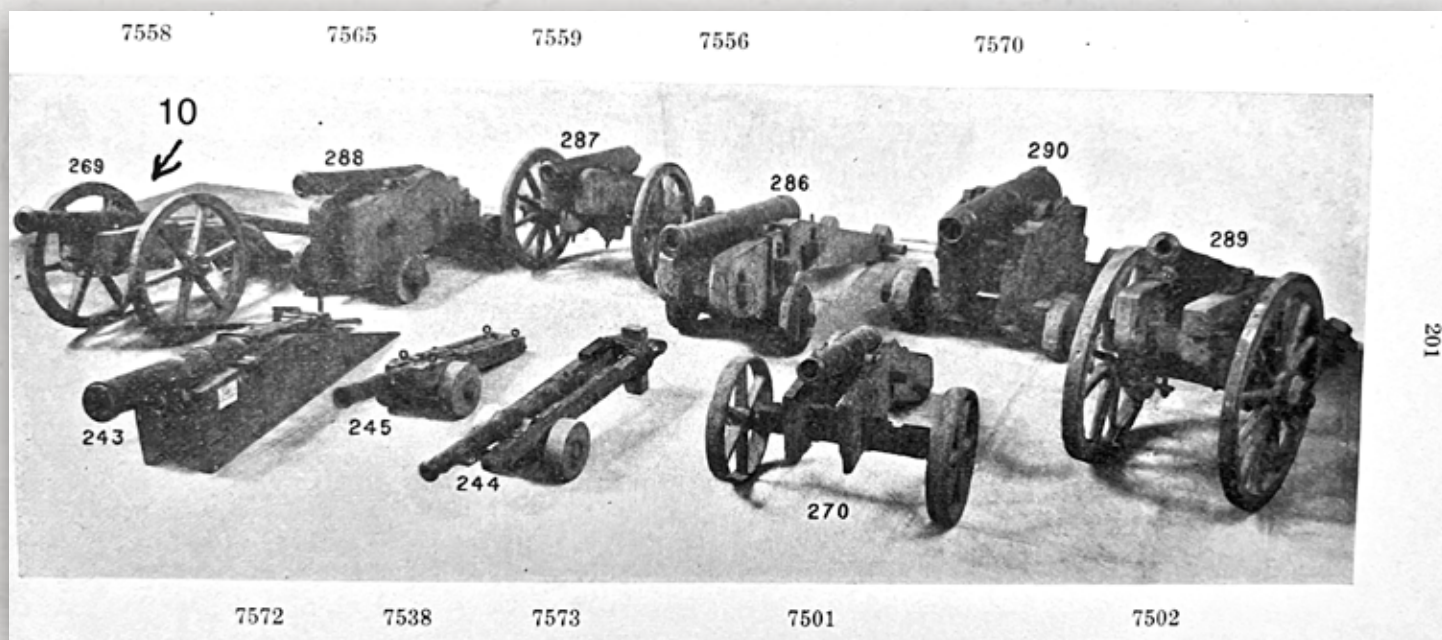


Figure 5: Small Spanish cannon on original carriages, West Point Ordnance Museum 1929 catalog, presumed all donated to scrap drives. Note the variety of carriages. Number 10, without a carriage, is described in the text.

2.15 in. bronze cannon on Filipino carriage, captured from Insurgents in the Philippine Islands." The carriage in the photo (long lost) is a small version of a Revolutionary War-era split-trail field carriage with two large, spoked wheels. The other small, captured cannon in the photo (fig. 5) are interesting because of the wide variety of carriages shown. I'm guessing all these were scrapped along with no. 10, visible in the upper left corner.

Dick Hendrickson was an interesting character. He owned considerable land in Bridgehampton, N.Y., where he farmed and raised chickens. He was "famous" as the volunteer weatherman who broadcast daily weather reports. He had accumulated thousands of antique guns and dozens of cannon as of my meeting with him ca. 1988.

Number 12 is a "fat" heavy swivel gun with 2.15-inch bore. I traded for it with an insurance executive from N.J. This gun is the most "heavily built" one in the collection and was certainly capable of firing heavy loads safely. The weight was also good for limiting recoil.

He introduced me to his small town "John, this town is run by the Mafia, and there is no crime." My offer for trade was a pair of small cast-iron salute guns with "HF" cast in relief on top of the tubes. These were cast by Hope Foundry in R.I., which cast many cannon for the Continental Navy during the Revolution. Elsewhere in town, we visited a bank vault where he and the banker had some jointly owned cannon stored. They were fairly priced; we paid and loaded them into the truck.

Number 13 is a large "Thunder Mug" signaling or ceremonial cannon. This one weighs 50 pounds and has marks that may indicate it was made at the Manila Arsenal. Article on thunder mugs: <https://tinyurl.com/4u46buak>.



Figure 6.

Again, that one was included in the deal for no. 4.

Number 15, is a rare Spanish 4-pounder "cañones de campaña." It has an 88.1 mm / 4-pounder bore. An antique gun dealer from Houston, the late Joel E. Morrow, sold me a few cannon, including an extensively marked esmeril dated 1723, found in New Mexico. Joel was a very interesting character who was involved in more enterprises than I have space to list here, but you can look up his 2019 obit, Joel Eugene Morrow.

One interesting business that got him to many gun shows was "Imperial Miniature Armory," which manufactured miniature, fully functioning firearms. He called me about 1990 and described a long bronze cannon, well-marked with "Barcelona" etc., dated 1766, he'd acquired in Texas. He mailed a photo, I agreed to his price, and a mutual friend brought it to me on a return trip from a Texas gun show. My late friend, historian Sid Brinckerhoff, described these guns in Brinckerhoff and Chamberlain *Spanish Military Weapons*



Figure 7.



Figure 8.

In Colonial America 1700–1821, Stackpole, Harrisburg, 1972.* By the way, if you are interested in Spanish Artillery, this book is a “must have.” The few others of this model that survive are U.S. government property. Here’s an article about them: <https://tinyurl.com/dhenuxb6>.

Number 16 is an *eprouvette*, or powder-testing mortar, one of a pair whose mate was sold. Before about 1835, it was thought the range achieved by a heavy ball fired from one of these was a good indication of the powder’s quality. A certain range, often 250 yards, was the minimum for accepting a given lot of powder from a vendor. Technical advances by Army ordnance officer Thomas J. Rodman and others invalidated the results of *eprouvette* testing so their manufacture was halted.

The copper sphere was hollow and filled with lead to obtain a precise weight, about 65 pounds for this *eprouvette*. An original copper shot, not pictured, came with it. I bought the pair from a picker who got it from an estate in the Louisville, Ky., area. I’m almost certain this and no. 17 came from Benjamin Lissberger, the New York metal

merchant who bought all the Spanish bronze artillery at Morro Castle, Havana, in an 1898 auction.

Number 17 is a Barcelona-made, Gribeauval-style 4-pounder field gun dated 1794. In about 1860, it was rifled by cutting six deep, wide grooves in the bore after any reaming needed to achieve the correct land diameter for the new system. Since the new elongated projectiles were much heavier than a four-pound round shot, the trunnions needed reinforcement to prevent them from failing under the much-increased recoil. The system was implemented by French general Ducos, Count de La Hitte in 1858 and quickly copied all over Europe and Asia. The shells had two rings of six zinc studs each. This cannon took me about 20 years of patience to get.

A gent in the Midwest wrote that he had it, included photos, and was convinced it had been used by the Confederacy. No, it wasn’t, I’m sure of that because none of those studded projectiles have been battlefield-recovered in the U.S. I’d contact him every few years, and finally he agreed to a deal. It was more than a day’s drive, so he was kind enough to wait I could pick the cannon up on the way home. This gun, until he bought it, decorated the grounds of a country resort in Illinois. The owner went on vacation and, upon return, discovered that a groundskeeper had taken it upon himself to start polishing the gun. That man was fired immediately.

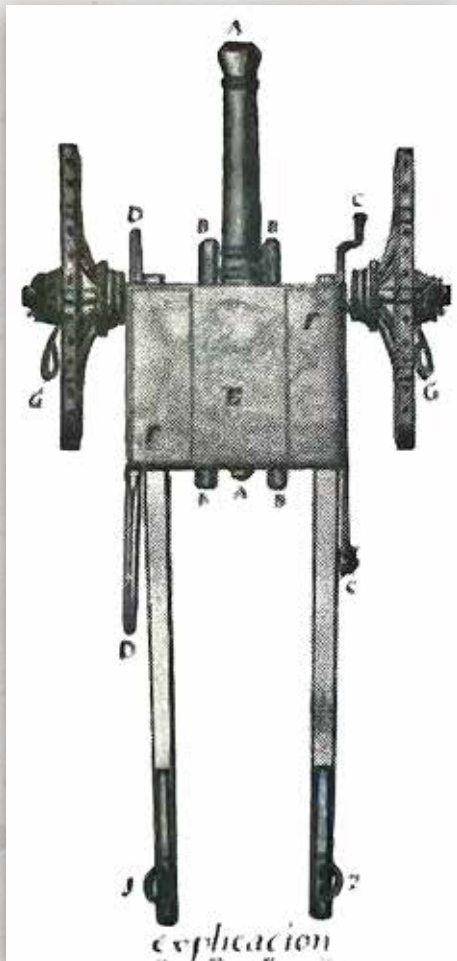


Figure 9: Not in this collection: Bronze 3-pounder field gun and light carriage designed and produced by Diego Panes in Mexico City, 1773. From Archivo General y Publico de la Nacion, Mexico City.



Figure 10.

Spanish Presidio Artillery											10/20/23
Phot. Key No.	Metal	Nom. Length (mm)	Bore Dia. (mm)	Foundry Loc.	Type Weapon	Property Mark	Weight Mark?	Pounder, Spanish	Date Mark	Marked Name	Remarks
1	Bronze	1029	67.3	Seville	P	Carlos IV	Yes	2	1795	Volante	
2	Bronze	876	57.7	N. Am.	P	—	Yes	1 1/2			
3	Copper	838	66.0	Mexico	P	SCOA	Yes	2			
4	Bronze	660	53.8	Phil.?	E	"AMG"	Yes	1			
5	Bronze	864	121	Seville	OM	Isabella II	Yes	12	1845	Urrutia	
6	Bronze	686	77	Seville	O	—	No	3			
7	Bronze	838	40.6	N. Am.	E	"R"	?	1/2			
8	Bronze	673	56.1	Mexico	P	SCOA	Yes	1 1/2			
9	Bronze	406	36.6	Phil.?	Arsenal Model	No	Yes	N/A			
10	Bronze	711	54.1	Phil.?	P	No	Yes	1			
12	Bronze	698	54.6	N. Am.	P	SCOA?	Yes	1			
13	Bronze	254	49.3	Manila	S	Yes?	Yes	3/4			
14	Bronze	749	84.8	Seville	O	No	No	4			
15	Bronze	1638	88.1	Barcelona	Cannon de C.	No	Yes	4	1766	El Bufon	
16	Bronze	394	190.0	Seville	M	Fredrick VII	?	N/A	1832	Biceno	
17	Bronze.	1460	86.9	Barcelona	Rifled FG	Carlos IV	Yes	4	1796	Gorro	
18	Cast Iron	1225	80.0	England	G	No	No	3	—		

OM=Obus, montaña=mountain howitzer
 E=Esmeril=small bore cannon
 O=Obus=howitzer

M=mortero de ensayo balístico= eprouvette
 P=Pedrero=small cannon, larger than esmeril
 S=cañón de señales=thunder mug

Sources:

Brinkerhoff and Chamberlain, *Spanish Military Weapons In Colonial America 1700–1821*, Stackpole, Harrisburg, 1972

McFarland, Earl, *Catalog Of The Ordnance Museum USMA*, West Point, NY, 1929

Perez, Enrique, *La Artilleria Naval Espanola en el Siglo XVIII*, Ministerio de Defensa, Madrid, 2010

Woodrick, James, *Texas Artillery Before 1835*, self-published, Austin, TX, 2019

Endnote:

*“One of two of the same pattern captured in Florida by Jackson in 1818, this bronze piece shows the later refinements in cannon design based on French influence. Of particular interest, dolphins are not provided on this tube, a practice not uncommon on Spanish light cannon cast during and after the 1770s. In addition, the coat of arms of Charles III is not engraved on the breech as found on the regulation pattern cannon and mortars beginning in the 1760s. The extremely long breech area is also noticeable on this piece. Trunnions on the low line, without rim-bases, are not common on light artillery in Spain. Stylistically, the cannon is typical of the period, but it generally differs in design from the regulation pattern adopted in 1756. These field pieces were known as *cañones de campaña*. Since Joseph Barnola cast it, it is safe to assume that this was one of the non-standard design of light 4-pounders purchased by the Crown during the 1770s. Cannon of this type certainly saw service during the American Revolution and throughout the colonial area in the later years of the North American empire. This piece is mounted on a later American carriage....”

John Morris grew up near Boston, Chicago, and Minneapolis, but mostly in Champaign, Ill., where he attended the U of I, and after a year there transferred to USNA under a presidential appointment. John always loved guns and ammunition of any kind, and kept a 15-inch, 450-pound antique cannonball on his Bancroft Hall desk as a paperweight. John had for years collected and traded in antique weapons and militaria, which avocation became Springfield Arsenal LLC in 2003. John continued that business full-time until 2014, when the business auctioned off the company's world-class collection of some 200 historic artillery pieces. John then turned the company over to his wife Nancy and focused his attention on his

other company, Dahlgren Laboratories LLC, a 12,000-square-foot D.C.-area secure facility filled with machine tools and mensuration equipment. John still collects historic militaria, and provides free assessments of others' prized possessions, usually from photos posted online. He has published numerous articles on antique artillery, and is an active member of six gun-collecting organizations and the Company of Military Historians.

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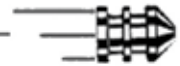
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